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PREAMBLES FOR TRADES

The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained. Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles.

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

PRICING OF PRELIMINARIES

Should the contractor select Option A in terms of subclause 32.1 in the Contract Data - Contractor to Employer (CE) for the purpose of adjustment of these preliminaries, the amount entered into the amount column in these preliminaries is to be divided into one or more of the three categories provided namely Fixed (F), Value Related (V) and Time Related (T).

SECTION A - PRINCIPAL BUILDING AGREEMENT**Definitions**

- | | | Item | | |
|---|---|------|--|--|
| 1 | Clause 1.0 - Definitions and interpretation | | | |
| 2 | A1 DEFINITIONS AND INTERPRETATION | | | |
| | Clause 1.0 Clause | | | |
| | 1.1 Definition of "Commencement Date" is added: | | | |
| | "COMMENCEMENT DATE" means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect | | | |
| 3 | Clause 1.1 Definition of "Construction Guarantee" is amended by replacing it with the following: | | | |

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4	<p>"CONSTRUCTION GUARANTEE"</p> <p>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</p> <p>Clause 1.1 Definition of "Construction Period" is amended by replacing it with the following:</p> <p>"CONSTRUCTION PERIOD" means the period commencing on the commencement date and ending on the date of practical completion</p>	
5	<p>Clause 1.1 Definition of "Corrupt Practice" is added:</p>	
6	<p>"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</p>	
7	<p>Clause 1.1 Definition of "Fraudulent Practice" is added:</p>	
8	<p>"FRAUDULENT PRACTICE" means a misrepresentation of facts in order to influence a procurement process in the execution of a contract to the detriment of any tenderer and includes collusive practice among tender es (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</p> <p>Clause 1.1 Definition of "Interest" is amended by replacing it with the following:</p> <p>"INTEREST" means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate 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)</p>	
9	<p>Clause 1.1 Definition of "Principal Agent" is amended by replacing it with the following:</p>	
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10	"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			
11	Clause 1.1 Definition of "Security" is amended by replacing it with the following:			
12	"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			
13	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 F:..... V:..... T:..... <u>Objective and preparations</u>	Item		
14	A2 OFFER, ACCEPTANCE AND PERFORMANCE Clause 2.0 F:..... V:..... T:.....	Item		
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15	A3 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"				
	F:..... V:..... T:.....	Item			
16	A4 DESIGN RESPONSIBILITY Clause 4.0 Clause 4.3 is amended by replacing it with the following: No clause				
	F:..... V:..... T:.....	Item			
17	A5 EMPLOYER'S AGENTS Clause 5.0 Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8				
	F:..... V:..... T:.....	Item			
18	A6 SITE REPRESENTATIVE Clause 6.0				
	F:..... V:..... T:.....	Item			
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19	A7	COMPLIANCE WITH REGULATIONS Clause 7.0 Note: A separate clause has been included in Section C : Specific Preliminaries of the bills of quantities / lump sum document for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification F:..... V:..... T:.....		Item	
20	A8	WORKS RISK Clause 8.0 F:..... V:..... T:.....		Item	
21	A9	INDEMNITIES Clause 9.0 F:..... V:..... T:.....		Item	
22	A10	WORKS INSURANCES Clause 10.0 Clause 10.0 is amended by the addition of the following clauses: 10.5 Damage to the Works (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 (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			
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- (c) The employer shall carry the risk of damage to or destruction of the works and material paid for by the employer that is the result of the excepted risks as set out in 10.6
- (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
- 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

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14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.

14.3 Where security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:

14.3.1 The contractor shall furnish the employer with a cash deposit equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date

14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT), and refund the balance to the contractor

14.3.3 Within twenty-one (21) calendar days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor

14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor

14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit 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 cash deposit security or portions thereof to the contractor

14.3.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party

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14.4 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:

14.4.1 The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date

14.4.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender

14.4.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring

14.4.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall issue a written demand in terms of the variable construction guarantee

14.5 Where security as a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:

14.5.1 The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT)

14.5.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion

14.5.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring

14.5.4 The payment reduction of the value certified in a payment certificate shall be in terms of 31.8 (A) and 34.8

14.5.5 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or may do both

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14.6 Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) has been selected:

14.6.1 The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date

14.6.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor

14.6.3 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)

14.6.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both

14.7 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected:

14.7.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(B)

14.7.2 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 or portions thereof to the contractor

14.8 Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement

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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

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EXECUTION

27 A15 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 twenty-one (21) calendar days of commencement date

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

Give the contractor possession of the site within ten (10) working days of the contractor complying with the terms of 15.1.2 and 15.1.4

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28 A16 ACCESS TO THE WORKS

Clause 16.0

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29	A17	CONTRACT INSTRUCTIONS			
		Clause 17.0			
		Clause 17.1.11 is amended by deleting the words "and the appointment of nominated and selected subcontractors"			
		F:..... V:..... T:.....	Item		
30	A18	SETTING OUT OF THE WORKS			
		Clause 18.0			
		F:..... V:..... T:.....	Item		
31	A19	ASSIGNMENT			
		Clause 19.0			
		F:..... V:..... T:.....	Item		
32	A20	NOMINATED SUB-CONTRACTORS			
		Clause 20.0			
		Clause 20.1.3 is amended by replacing it with the following:			
		No Clause			
		Note: See item B9.1 hereinafter for adjustment of attendance on nominated subcontractors executing work allowed for under provisional sums			
		F:..... V:..... T:.....	Item		
33	A21	SELECTED SUBCONTRACTORS			
		Clause 21.0			
		Clause 21 is amended by replacing it with:			
		No Clause			
		F:..... V:..... T:.....	Item		
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34	A22	EMPLOYER'S DIRECT CONTRACTORS			
		Clause 22.0			
		F:..... V:..... T:.....	Item		
35	A23	CONTRACTOR'S DOMESTIC SUBCONTRACTORS			
		Clause 23.0			
		F:..... V:..... T:.....	Item		
		<u>Completion</u>			
36	A24	PRACTICAL COMPLETION			
		Clause 24.0			
		F:..... V:..... T:.....	Item		
37	A25	WORK'S COMPLETION			
		Clause 25.0			
		F:..... V:..... T:.....	Item		
38	A26	FINAL COMPLETION			
		Clause 26.0			
		Clause 26.1.2 is amended by inserting "#" next to 26.1.2			
		F:..... V:..... T:.....	Item		
39	A27	LATENT DEFECTS LIABILITY PERIOD			
		Clause 27.0			
		F:..... V:..... T:.....	Item		
40	A28	SECTIONAL COMPLETION			
		Clause 28.0			
		F:..... V:..... T:.....	Item		
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41	<p>A29 REVISION OF DATE FOR PRACTICAL COMPLETION</p> <p>Clause 29.0</p> <p>Clause 29.2.5 is amended by replacing it with:</p> <p>No clause</p> <p>F:..... V:..... T:.....</p>	Item		
42	<p>A30 PENALTY FOR NON-COMPLETION</p> <p>Clause 30.0</p> <p>F:..... V:..... T:.....</p> <p><u>Payment</u></p>	Item		
43	<p>A31 INTERIM PAYMENT TO THE CONTRACTOR</p> <p>Clause 31.0</p>			
44	<p>Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"</p> <p>Clause 31.8 is amended by replacing it with the following two alternative clauses:</p> <p>Alternative A</p> <p>31.8(A) Where a security is selected in terms of 14.1; 14.5 or 14.6, 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:</p> <p>31.8(A).1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion</p> <p>31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion</p>			
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31.8(A).3 Ninety-nine per cent (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 per cent (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

Alternative B

31.8(B) Where security is a payment reduction in terms of 14.7 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(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion

31.8(B).2 Ninety-seven per cent (97%) 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(B).3 Ninety-nine per cent (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(B).4 One hundred per cent (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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45	<p>A32 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: "due to no fault of the contractor"</p> <p>F:..... V:..... T:.....</p>	Item		
46	<p>A33 RECOVERY OF EXPENSE AND LOSS</p> <p>Clause 33.0</p> <p>F:..... V:..... T:.....</p>			
47	<p>A34 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 removing "#" next to 34.2</p> <p>Clause 34.8 is amended by deleting the words "where security as a fixed construction guarantee in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"</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>F:..... V:..... T:.....</p>	Item		
48	<p>A35 PAYMENT TO OTHER PARTIES</p> <p>Clause 35.0</p> <p>F:..... V:..... T:.....</p>	Item		
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CANCELLATION**A36 CANCELLATION BY EMPLOYER -
CONTRACTOR'S DEFAULT****Clause 36.0**

Clause 36.1 is amended by the addition of the following clauses:

36.1.3 refuses or neglects to comply strictly with any of the conditions of contract

36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract

Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"

Clause 36.0 is amended by the addition of the following clause:

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

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

Item

**49 A37 CANCELLATION BY EMPLOYER - LOSS AND
DAMAGE****Clause 37.0**

Clause 37.3.5 is amended by replacing "ninety (90) with "one hundred and twenty (120)"

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	Clause 37.0 is amended by the addition of the following clause: 37.5 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 F:..... V:..... T:.....	Item		
50	A38 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT Clause 38.0 Clause 38.5.4 is amended by replacing "ninety (90) with "one hundred and twenty (120)" Clause 38.0 is amended by the addition of the following clause: 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 F:..... V:..... T:.....	Item		
51	A39 CESSATION - CANCELLATION 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" F:..... V:..... T:.....	Item		
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52	<p>A40 DISPUTE SETTLEMENT</p> <p>Clause 40.0</p> <p>Clause 40.2.2 is amended by replacing “one (1) year” with “three (3) years”</p> <p>Clause 40.6 is amended by removing the reference to:</p> <p>No clause</p> <p>Clause 40.7.1 is amended by replacing “(10)” with “(15)” and by the addition of the following:</p> <p>Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs</p> <p>F:..... V:..... T:.....</p> <p><u>SUBSTITUTE PROVISIONS</u></p>	Item	
53	<p>A41 STATE CLAUSES</p> <p>Clause 41.0</p> <p>F:..... V:..... T:.....</p> <p><u>CONTRACT VARIABLES</u></p> <p><u>THE SCHEDULE (DPW04EC)</u></p>	Item	
54	<p>A42 PRE-TENDER INFORMATION</p> <p>Clause 42.0</p> <p>Tenderers are referred to the Contract Data DPW-04(EC) for variables pertaining to this contract</p> <p>F:..... V:..... T:.....</p> <p><u>SECTION B - PRELIMINARIES</u></p>	Item	
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	<u>Definitions and interpretation</u>			
55	Definitions and interpretation See also clause A1.0 of Section A for additional an/or amended definitions which shall apply to this Section F:..... V:..... T:.....	Item		
	<u>Documents</u>			
56	Clause 2.1 - Checking of documents	Item		
57	Provisional bills of quantities F:..... V:..... T:.....	Item		
58	Availability of construction documentation F:..... V:..... T:.....	Item		
59	Interests of agents F:..... V:..... T:.....	Item		
60	Priced documents F:..... V:..... T:.....	Item		
61	Tender submission Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance DPW-07(EC)" F:..... V:..... T:.....	Item		
	<u>3: THE SITE</u>			
	<u>Previous work and adjoining properties</u>			
62	Defined works area F:..... V:..... T:.....	Item		
63	Geotechnical investigation F:..... V:..... T:.....	Item		
	Carried to Collection		R	
	Preliminaries Bill No. 1 Preliminaries			

64	Existing premises occupied F:..... V:..... T:.....	Item		
65	Clause 2.3 - Availability of construction documentation The budgetary allowances and selected subcontract amounts allocated for subsequent trades included in this document will be separately procured, based on selected subcontractors during the construction period	Item		
66	Clause 3.1 - Previous work - dimensional accuracy	Item		
67	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item		
68	Services - known F:..... V:..... T:.....	Item		
69	Services - unknown F:..... V:..... T:.....	Item		
70	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item		
<u>4: MANAGEMENT OF CONTRACT</u>				
71	Management of the works F:..... V:..... T:.....	Item		
72	Programme for the works F:..... V:..... T:.....	Item		
73	Progress meetings F:..... V:..... T:.....	Item		
74	Technical meetings F:..... V:..... T:.....	Item		
75	Labour and plant records F:..... V:..... T:.....	Item		
Carried to Collection			R	
Preliminaries Bill No. 1 Preliminaries				

Samples, shop drawings and manufacturer's instructions

76	Clause 4.1 - Samples of materials F.....V.....T.....	Item
77	Clause 4.2 - Workmanship samples F.....V.....T.....	Item
78	Clause 4.3 - Shop drawings F.....V.....T.....	Item
79	Clause 4.4 - Compliance with manufacturer's instructions F.....V.....T.....	Item

Deposits and fees

80	Clause 5.1 - Deposits and fees	Item
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6: TEMPORARY WORKS AND PLANT

81	Deposits and fees F:..... V:..... T:.....	Item
82	Enclosure of the works F:..... V:..... T:.....	Item
83	Advertising F:..... V:..... T:.....	Item
84	Plant, equipment, sheds and offices F:..... V:..... T:.....	Item
85	Main notice board F:..... V:..... T:.....	Item
86	Subcontractors' notice board F:..... V:..... T:.....	Item

Temporary services

87	Clause 6.1 - Water F.....T.....V.....	Item
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88	Clause 6.2 - Electricity F.....T.....V.....	Item	
89	Clause 6.3 - Telecommunication facilities F.....T.....V.....	Item	
90	Clause 6.4 - Ablution facilities F.....T.....V.....	Item	
<u>Prime cost amounts</u>			
91	Clause 7.1 - Responsibility for prime cost amounts F.....V.....T.....	Item	
<u>Special attendance on nls subcontractors</u>			
92	Clause 8.1 - Special attendance F:..... V:..... T:.....	Item	
93	Commissioning - fuel, water and electricity F:..... V:..... T:.....	Item	
<u>10: FINANCIAL ASPECTS</u>			
94	Statutory taxes, duties and levies F:..... V:..... T:.....	Item	
95	Payment for preliminaries F:..... V:..... T:.....	Item	
96	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" F:..... V:..... T:.....	Item	
97	Payment certificate cash flow F:..... V:..... T:.....	Item	
Carried to Collection			R
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	<u>General</u>			
98	Protection / isolation of existing / sectionally occupied works F:..... V:..... T:.....	Item		
99	Clause 9.2 -Protection/isolation of existing/sectionally occupied works. F.....V.....T.....	Item		
100	Clause 9.3 - Security of the works F.....V.....T.....	Item		
101	Clause 9.4 - Notice before covering work F.....V.....T.....	Item		
102	Clause 9.5 - Disturbance F:..... V:..... T:.....	Item		
103	Clause 9.6 - Environmental disturbance F:..... V:..... T:.....	Item		
104	Clause 9.7 - Works cleaning and clearing F.....V.....T.....	Item		
105	Clause 9.8 - Vermin F.....V.....T.....	Item		
106	Clause 9.9 - Overhand work F:..... V:..... T:.....	Item		
107	Instruction manuals and guarantees F:..... V:..... T:.....	Item		
	<u>Schedule of variables</u>			
	Information necessary for elections and completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder Where no information is given it shall mean that no specific requirements are expected or that the clause is not relevant to this specific contract			
	10.1 - Provisional bills of quantities [clause 2.2] The quantities are provisional Yes			
	Carried to Collection		R	
	Preliminaries Bill No. 1 Preliminaries			

108	<p>10.2 - Availability of construction documentation [clause 2 3] Construction documentation is complete No</p> <p>10.3 - Previous work - dimensional accuracy [clause 3.1]</p> <p>10.4 - Previous work - defects [clause 32]</p> <p>10.5 - Inspection of adjoining properties [clause 33]</p> <p>10.6 - Water [clause 7.2]</p> <p>Option A (by contractor) yes Option B (by employer - free of charge) no Option C (by employer - metered) no</p> <p>10.7 - Electricity [clause 7.3]</p> <p>Option A (by contractor) yes Option B (by employer - free of charge) no Option C (by employer - metered) no</p> <p>10.8 - Telecommunications [clause 7.4] Telephone yes Facsimile no E-mail no</p> <p>10.9 - Ablution facilities [clause 7 5] Option A (by contractor) yes Option B (by employer) no</p> <p>10.10 - Protection of the works [clause 9 1]</p> <p>10.11 - Protection/isolation of existing/sectionally occupied works [clause 9 2] Protection/isolation is required Yes</p> <p>10.12 - Disturbance [clause 9 5]</p> <p>10.13 - Environmental disturbance [clause 9.6]</p> <p><u>SECTION C - SPECIFIC PRELIMINARIES- HEALTH AND SAFETY</u></p> <p>The contractor shall comply with all the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act 1993 (Act no 85 of 1993)</p> <p>It is required of the contractor to thoroughly study the Health and Safety Specification as set out in the Section</p> <p style="text-align: right;">Carried to Collection</p> <p>Preliminaries Bill No. 1 Preliminaries</p>			<p style="text-align: center;">R</p>
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C2.2, it must be read together with and deemed to be incorporated under this section of the Bills of Quantities / Lump sum document

The Contractor must take note that compliance with the Occupational Health and Safety Act, Construction regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent Notwithstanding the provision of Clause A31.0 of Section A (Preliminaries) 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.

Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder including for the SMME Subcontractors, domestic & nominated Subcontractors. No additional claims in this regard shall be entertained.

The Legal requirements contemplated in Construction Regulation CR (1) (g)

"A client must ensure that potential principal contractors submitting tenders, have made adequate provision for the cost of health and safety measures"

And CR 5(1) (h)

"A Client must ensure that the principal contractor to be appointed has the necessary competencies and resource to carry out the construction work safety"

Shall apply and failure to price the Health and Safety items will result in the tender being deemed non-responsive. The contractors attention is further drawn to Section 41 of the

OCCUPATIONAL HEALTH AND SAFETY ACT NO.85 1993 : THIS ACT NOT AFFECTED BY AGREEMENT Subject to the provisions of section 10 (4) and 37 (2), a provision of this Act or a condition specified in any notice or direction issued there under or subjects to which exemption was granted to any person under section 40, shall not be affected to any condition of any agreement whether such agreement was entered into before or after the commencement of this Act or before or after the imposition of any such condition, as the case may be.

Prior to pricing the Contractor MUST FAMILIARIZE HIM / HERSELF WITH THE OCCUPATIONAL HEALTH AND

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Bill No. 1
Preliminaries

R

	SAFETY ACT NO. 85 1993 as well as the Construction Regulations, 2014, other Relevant Regulations and Standards.	Item		
109	Notice the Provincial Director Department of Labor in writing of the commencement of construction work with and including submission of a letter or receipt and acknowledgement of the aforementioned notice by the director or his / her representative			
	F.....V.....T.....	Item		
110	Protection of existing and/or partially occupied WorksThe Contractor shall provide all reasonable temporary measures to protect/isolate the existing and/or sections of the occupied Works and remove such measures on completion	Item		
111	Allow for the necessary Workman's Compensation Fund or FEM contributions for the duration of the project with and including renewals.			
	F.....V.....T.....	Item		
112	Allow the preparation and approvals of the project - specific H & S and File(CR 7 (1) (a)			
	F.....V.....T.....	Item		
113	Allow for the implementation and maintenance of project - specific H&S Plan and File. (CR 7)			
	F.....V.....T.....	Item		
114	Allow for the appointment of a Full - Time/Part - Time competent Construction Health and Safety Officer to assist in the control of all health and safety related aspects on site as per CR8 (5)			
	F.....V.....T.....	Item		
115	Provide for appointment of responsible and competent person /s to manage and supervise the work and administer and enforce health and safety on site as per CR 8 (1), (2) and (7)			
	F.....V.....T.....	Item		
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116	Allow for provision of Basic Emergency preparedness and Response equipment and minimum Level 2 First Aider/s F.....V..... T..... <u>Provide, supply and maintain for each worker the following SANS approved personal Protective equipment & clothing as per the site - Specific risk assessment:</u>			
		Item		
117	Hard Hat (High Density polyethylene with 6 - point lining) F.....V.....T.....	Item		
118	Overall / Work suit (100% Cotton) F.....V.....T.....	Item		
119	High Visibility reflecting vest and / or bibs F.....V.....T.....	Item		
120	Safety boot / shoes (Steel - toes) F.....V.....T.....	Item		
121	Safety Gumboot (Steel - toes) F.....V.....T.....	Item		
122	Allow for provision of telecommunication facilities for the appointed construction Health and Safety Office F.....V..... T.....	Item		
	<u>SECTION D - SPECIFIC PRELIMINARIES</u>			
123	Site instructionsInstructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor	Item		
Carried to Collection				
Preliminaries Bill No. 1 Preliminaries	R			

124	Warranties for material and workmanshipWhere warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the firm supplying the materials and /or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The warranty shall state that workmanship, materials and installation are warranted for a specified period from the date of final completion and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice to do so The warranty will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor	Item		
125	Co-operation of contractor for cost managementIt is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management The Contractor will be advised by the Principal Agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget The Principal Agent undertakes to make available to the Contractor all budgetary allowances and cost assessments reports to enable the proper procedure to be implemented and the contractor shall attend all cost plan review and cost management meetings The Contractor undertakes to extend these procedures, as necessary, to all Subcontractors	Item		
126	Testing of windows for water tightness Each window shall be tested for water tightness with water sprayed on using adequate pressure. If in the opinion of the principal agent, the pressure proves to be inadequate, then the pressure shall be boosted by means of compressed air or other approved means.	Item		
127	Testing of flat roof waterproofing for watertightnessFlat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least 36 hours as a test to ensure the water tightness of the waterproofing and before any further construction work is carried out above the waterproofing	Item		
Carried to Collection			R	
Preliminaries Bill No. 1 Preliminaries				

	<u>Programme for the Works</u>			
128	DisturbanceThe Contractor shall execute the Works with a; minimum of disturbance to adjoining premises, any parts of the Works already handed over and the occupants of those premises and/or parts. Any specific requirements are stated in the Works information	Item		
129	Contractors ProgrammeThe contractor is to allow in his programme to accommodate the fact that the there is sectional completion The contractor is to co-ordinate with the end user the availability of these facilities and an allowance in the programme is to be made, to undertake the construction of these facilities as and when the facilities are made available.	Item		
	<p>The Contractor shall provide with his bid full construction methodology and approved programme, per the programme dates listed in the Contract Data, outlining in detail how the Works will be handled:</p> <p>-a)Personnel b) Equipment c)Plant and materials d) Vertical and horizontal transportation e) Site facilities f) Hoists, access, scaffolding g) Rubble removal h) Inspection and handover procedures i) Security j) Safety k) Quality control and reporting plan l) Targeted procurement plan - 40% minimum level m) Environmental</p>			
130	<p>The Contractor shall prepare and be responsible for a programme for the Works in sufficient detail as to represent the units of work to enable the Principal Agent to assess the progress of the Works. The Contractor, who shall co-ordinate Sub-Contractor's programmes with his own, shall programme the Works. Where required by the Contractor, the Sub-Contractor shall prepare and update his programme for the Works in sufficient detail to meet the needs of the programme. The Contractor shall implement and modify the programme should any significant deviations take place. The Contractor shall provide copies of the programme and its supporting documents with all updates for the Principal Agent and/or the Sub-Contractor where relevant.</p>	Item		
	<u>SECTION D - SPECIFIC PRELIMINARIES- SOCIAL AND ECONOMIC DELIVERABLES</u>			
	It is required that the contractor shall adhere to all Socio economic deliverables as set out in Section C2.5			
	<p style="text-align: right;">Carried to Collection</p> <p>Preliminaries Bill No. 1 Preliminaries</p>		R	

[illegible]

Subterranean water

No information regarding subterranean water is available. The Contractor must acquaint himself of the presence and depth of subterranean water and allow therefore in his prices

Testing

Prices for filling are to include for all necessary density tests in accordance with SANS 1200D

Trades Names

All trade names deemed to mean "or similar approved" (prior to tender closing date)

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

1	Trenches	m ³	314
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Extra over trench and hole excavations in earth for excavation in

2	Soft rock	m ³	31
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3	Hard rock	m ³	16
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Extra over all excavations for carting away

4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m ³	146
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Risk of collapse of excavations

5	Sides of trench and hole excavations not exceeding 1,5m deep	m ²	898
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Keeping excavations free of water**FILLING ETC****Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density**

6	As backfilling to foundations	m ³	162
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Carried to Collection

R

Builders Work
Bill No. 1
Earthworks

7	Under floors, steps, pavings, etc <u>Earth filling supplied by the contractor, compacted to 93% Mod AASHTO density</u>	m ³	181	
8	Import G5 material under surface bed, in layers not exceeding 150mm and compact to 93% of modified AASHTO density. <u>Compaction of surfaces</u>	m ³	30	
9	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 <u>Prescribed density tests on filling</u> <u>SOIL POISONING</u> <u>Soil insecticide</u>	m ²	603	
10	To bottoms and sides of trenches etc	m ²	1 122	
11	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	603	
Carried to Collection				R
Builders Work Bill No. 1 Earthworks				

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

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

Trades Names

All trade names deemed to mean "or similar approved" (prior to tender closing date)

UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

15MPa/19mm concrete

1	Surface blinding under footings	m ³	11
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REINFORCED CONCRETE

20MPa/19mm concrete

2	Ramps	m ³	33
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25MPa/19mm concrete

3	Strip Footings	m ³	59
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30MPa/19mm concrete

4	Surface beds on waterproofing	m ³	81
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float/steel trowel

5	Suspended, slabs, etc	m ²	275
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Carried to Collection

Builders Work
Bill No. 2
Concrete, Formwork and Reinforcement

R

	<u>Finishing top surfaces of concrete smooth with a power float</u>				
6	Surface beds, slabs, etc	m ²	437		
	<u>Polished concrete floor finish</u>				
7	Surface beds, ramps, slabs, aprons, etc laid in panels to falls and currents	m ²	492		
	<u>FORMWORK</u>				
	<u>(WORK GROUP 111)</u>				
	<u>MOVEMENT JOINTS ETC</u>				
	<u>Construction joints</u>				
8	10 x10mm construction joint with polyutherane sealant, to SABS 1077	m	151		
	<u>REINFORCEMENT</u>				
	<u>Provision for Mild and High tensile steel reinforcement to structural concrete work</u>				
9	Various diameter bars	t	3.55		
	<u>Fabric reinforcement</u>				
10	Type 245 fabric reinforcement in concrete surface beds, slabs, etc	m ²	603		
Carried to Collection					R
Builders Work					
Bill No. 2					
Concrete, Formwork and Reinforcement					

Trades Names

All trade names deemed to mean "or similar approved"
(prior to tender closing date)

BRICKWORK**FOUNDATIONS (PROVISIONAL)****Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar**

1	One Brick walls	m ²	449
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SUPERSTRUCTURE**Brickwork of NFP bricks in class II mortar**

2	Half Brick walls	m ²	283
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3	Half brick walls in beamfilling	m ²	24
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Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar

4	One Brick walls	m ²	1 015
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Bagging of 1:3 cement and sand mixture

5	On brick walls	m ²	395
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5mm 1:5 Dry mortar mixture**Joint forming material in movement joints**

6	10mm Jointex expanded polyethylene joint former built in vertically between concrete and brick walls	m	528
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Brickwork reinforcement

7	75mm Wide reinforcement built in horizontally	m	663
---	---	---	-----

8	150mm Wide reinforcement built in horizontally	m	4 443
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Prestressed fabricated concrete lintels including necessary temporary supports

9	110 x 70mm Lintels in lengths not exceeding 3m	m	87
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Carried to Collection

Builders Work
Bill No. 3
Masonry

R

10	110 x 70mm Lintels in lengths exceeding 3m	m	6
<u>FACE BRICKWORK</u>			
<u>Faced brickwork facings in approved semi face bricks (FBS) " Silver satin Grey" pointed with square recessed horizontal and vertical joints</u>			
11	Extra over brickwork for external face brickwork	m ²	179
12	Extra over brickwork for header course including pointing around	m	34
<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u>			
<u>Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc</u>			
13	15 x 120mm Wide sills set flat and slightly projecting	m	97

Carried to Collection

R

Builders Work
Bill No. 3
Masonry

Item No	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>			
<u>BILL NO 4</u>			
<u>WATERPROOFING</u>			
<u>PREAMBLES</u>			
Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities.			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Waterproofing</u>			
Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
<u>Trades Names</u>			
All trade names deemed to mean "or similar approved" (prior to tender closing date)			
<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
<u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u>			
1	In walls	m ² 66	
<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
2	Under surface beds	m ² 603	
Carried to Collection			R
Builders Work			
Bill No. 4			
Waterproofing			

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Safintra 0.50mm thick SAFLOK 410 Colorplus AZ150 interlocking roof sheeting fixed to 50x76mm timber internal purlins at 1200mm, and 152x76mm SA pine roof truss at 1228mm centres using SAFLOK 410 clips which must be screw fixed to timber purlins with wafer head self tapping screws, all in accordance with manufacturers recommendations. Roof to be designed by competent person at a 22o pitch and approved by a Structural Engineer.

- | | | | |
|---|---|----------------|-----|
| 1 | Roof covering with pitch not exceeding 30° fixed to purlins | m ² | 326 |
| 2 | Moulded narrow and broad rib polyethylene filler blocks | m | 60 |

ROOF AND WALL INSULATION

"Sisalation 430" or similar approved heavy industrial grade aluminium foil based insulation

- | | | | |
|---|---|----------------|-----|
| 3 | Insulation laid taut over rafters (at approximately 950mm centres) and fixed concurrent with roof covering including galvanised steel straining wires | m ² | 326 |
|---|---|----------------|-----|

Carried to Collection

Builders Work
Bill No. 5
Roof Coverings

R

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Item No	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>			
<u>BILL NO 6</u>			
<u>CARPENTRY AND JOINERY</u>			
<u>PREAMBLES</u>			
Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities.			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Fixing</u>			
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres			
<u>Descriptions</u>			
The term "screwed on" shall mean the countersunk screwing of one timber member to another.			
The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.			
<u>Joinery</u>			
Heads of screws and nails in exposed faces of joinery shall be countersunk and pelleted. All pelleting shall be done with material to suit the exposed face of the component in which it occurs.			
Carried to Collection			R
Builders Work			
Bill No. 6			
Carpentry and Joinery			

Rates

Heads of screws and nails in exposed faces of joinery shall be countersunk and pelleted. All pelleting shall be done with material to suit the exposed face of the component in which it occurs.

Prices for plugging are to include for approved patent wall plugs in brickwork or concrete.

Prices for eaves covering, ceilings, floors, joinery, etc. are to include for notching and square metre and waste.

Prices for material items such as skirtings, cornices, cover strips, edge strips, etc. given in linear metre are to include for mitres, fitted intersections, stopped ends, etc.

Prices for labour items such as rounded angles, rebates, grooves, chamfers, moulded edges, etc. given in linear metre are to include for angles, ends, etc.

Fittings are measured net and prices for all joinery work are to include for all labours in planing, rebating, moulding, square cutting and waste, mitres, etc. and for all work in connecting by mortice and tenon, housing flush, pinning, etc. as may be required and for all screws, nails, etc. and glueing together

Trades Names

All trade names deemed to mean "or similar approved" (prior to tender closing date)

Pre-fabricated timber roof trusses

Roof trusses shall be manufactured, erected and braced in accordance with SABS 0243

Contractor is to allow for the design, supply, fabrication, delivery, erection as well as to provide a full set of shop drawings which must be checked and signed for approval by the Consultant Structural Engineer prior to commencement of fabrication.

The setting out, spacing and overall dimensions of the roof trusses which are at approximately 760mm centres and have a 18° pitch are shown on the drawings. All truss dimensions must conform with these requirements and all relevant details of the roof construction

Carried to Collection

Builders Work
Bill No. 6
Carpentry and Joinery

R

The materials and design of the roof construction must allow for:

1. 'Marley' double roman concrete roof tiles and "Sisalation" insulation on 38 x 50mm battens at approximately 320mm centres
2. 600 x 1200mm Drop in ceiling tiles in suspended ceiling grid system and / or rhino board ceilings
3. 6mm 'Nutec' fibre cement eaves soffit coverings on 38 x 50mm softwood brandering at 450mm centres
4. 250 x 15mm 'Nutec' fibre cement fascias and 150 x 150mm seamless aluminium eaves gutters
5. Sundry services

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

Prefabricated timber roof truss construction

- 1 Roof truss construction to hipped double pitched roof to Main Building approximately 2,0m high overall including roof ventilators, wall plates, trusses, permanent bracing, purlins, valley boards, tilting purlin at eaves with all purlins fixed to rafters with approved hurricane clips and trusses fixed to wall plates with approved roof ties. All exposed timbers at eaves, verges etc are to be wrot and including painting with two coats "ABE Provonite", installed com.

m²

326

EAVES, VERGES, ETC

Tempered Fibre-cement

- 2 15 x 225mm Fascia board countersunk screwed to roof timbers (elsewhere) with two brass screws at maximum 1200mm centres and jointed with and including standard aluminium halfround cover strips at all joints

m

60

DOORS ETC

Carried to Collection

R

Builders Work
Bill No. 6
Carpentry and Joinery

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SUSPENDED CEILINGS

1200 x 600 x 12.5mm Thick ceiling panels on exposed grid system (colour match existing), including main and cross tees, necessary hangers, grids, sub grids, etc., laid in strict accordance with the manufacturer's instructions:

1	Exposed Tee suspended ceiling (9mm board)	m ²	194
2	Ceilings suspended not exceeding 1m below timber/steel purlins at 933mm centres (trusses at 4.8m average centres) including skimming to ceilings	m ²	24

Cornices to suspended ceilings:

3	"40 x 24mm angle Shadowline" cornices plugged.	m	528
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INSULATION, ETC**Fibreglass insulation**

4	135mm Insulation closely fitted and laid on top of suspended ceiling as per manufacturers instructions	m ²	
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Carried to Collection

Builders Work
Bill No. 7
Ceilings, Partitions and Access Flooring

R

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Rates

Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered

HINGES, BOLTS, ETC**"Dorma or similar equal approved"**

1	DBC-SS-022 stainless steel adjustable roller bolt	No
2	DFB-SS-027/160mm stainless steel flush bolt	No
3	DFB-SS-028/300mm stainless steel flush bolt	No
4	Adjustor hinges SA120 as per Handles Inc	Pairs

"Union" or similar equal approved"

5	Union AL5515-FL AS Dove aluminium flanged fixing on rose-600mm.(fitted horizontally int)	No
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LOCKS**"Dorma or similar equal approved"**

6	43mm single cylinder grand masterkeyed (DSC104201 nickel plated) (suiting to later spec)	No
7	65mm double cylinder grand masterkeyed (DDC106501 nickel plated) (suiting to later spec)	No
8	65mm double cylinder grand masterkeyed (DKC106501 nickel plated) (suiting to later spec)	No
9	DO2835 35mm basckset deadlock with roller bolt	No
10	D031L SS mortice latch (full size case) (lock measures 77mm overall)	No
11	D036S SS euro-profile cylinder sash lock case	No
12	D037D/37 Deadlock strike	No

4

Carried to Collection

Builders Work
Bill No. 8
Ironmongrey

R

13	DO37D SS euro-profile cylinder dead lock case	No			
14	DO32D SS Bathroom Deadlock. Case dimensions (mm) 102H x 78D. Forend dimensions (mm) 155H x 22W. Backset 57mm.	No	6		
15	D038R NP Rebate conversion kit for euro-profile locks	No			
16	D080/SS rebate kit for 100mm euro cylinder lock stainless steel.	No			
17	D082D/SS bath/w.c. deadlock 100mm stainless steel	No			
18	D085S-SS bath/wc sashlock 100mm stainless steel	No			
19	D086S/SS euro profile cylinder sashlock 100mm stainless steel.	No			
20	DDC 206301 MK SS 63mm - 31.5+31.5mm Europrofile Nickel Plated E-SP 5 Pin Double Cylinder - Master Keyed	No	4		
21	D087D/SS euro profile cylinder deadlock 100mm stainless steel.	No			
22	DCE-002 Stainless steel euro profile escutcheon	No			
23	DCE-105 narrow stile cylinder escutcheons stainless steel	Pairs			
24	DWC-005 stainless steel WC indicator and turn knob escutcheons	No	6		
25	DWC-006 stainless steel WC indicator with 79mm turn knob for physically impaired	No	4		
26	PHA 2/S 2 point (top and bottom) locking bolt with cross bar door leaf up to 1000mm wide, maximum door height 2270mm-silver.	Sets			
27	PHA 3/S one point latch to active leaf,two point locking bolt(top and bottom) to inactive leaf for double doors up to 2000mm wide,maximum door height 2270mm.(silver)	Sets			
28	PHB 3/S one point latch to active leaf,two point locking bolt(top and bottom) to inactive leaf for double doors up to 2000mm wide,maximum door height 2265mm.(silver)	Sets			
Carried to Collection					
Builders Work					
Bill No. 8					
Ironmongrey					

29	PHA 3/WL 2000/2205 series one point latch to active leaf,two point locking bolt(top and bottom) to inactive leaf for double doors up to 2600mm wide,maximum door height 3200mm.(silver)	Sets			
<u>AUTOMATIC SLIDING DOOR</u>					
<u>"Dorma or similar equal approved"</u>					
30	ES200 Easy automatic sliding door operator for 2 leaf - 100kgs each, include remote/programme switch, floor guide, track, belt, rollers, mini drive unit (track length 6m).	No			
31	Compi 1 safety and motion sensor.	No			
32	Battery back up	No			
<u>HANDLES</u>					
<u>"Dorma or similar equal approved"</u>					
33	DPH213 pull handle vertically mounted on plate 500 x 150mm stainless steel(with cylinder cutout)	No			
34	DPH213 pull handle vertically mounted on plate 500 x 150mm stainless steel	No			
35	DPH 301B 300 x 25mm stainless steel pull handle with flange fixing(fitted vertically ext)	No			
36	DPH 301A BTB 325x25mm Straight Tubular Pull Handle BTB (BTB Fixing Sets included)	No	4		
37	DPH 301D 200 X 19mm stainless steel "D" shaped straight pull handle	No			
38	DPH 301C 149x19mm Straight Tubular Pull Handle BTB (BTB Fixing Sets included)	No	6		
39	DFP-SS-025 120x40mm stainless steel flush pull handle(square ends)	No			
40	PFS 25 back to back fixing set for DPH205/206/208/210/212/214/301A pull handles	Sets			
41	PHT3901 external fire escape access with lever handle (ifrequired)	No			
Carried to Collection					
Builders Work					
Bill No. 8					
Ironmongrey					

	<u>"Franke"</u>				
54	"Franke STRX 672"code 2120044 stainless steel lockable toilet roll holder Double toiletrol holder, wall mount ed of satin finish with urface refinement.	No	6		
	<u>SUNDRIES</u>				
	<u>NUMERAL AND NAME PLATES</u>				
	<u>Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tapscrewed to steel door frame with chromium plated dome-headed selftapping screws</u>				
55	3mm Thick x 32mm wide plate with letters	No	22		
	<u>Photo-luminecent in white powdercoated aluminium frame suspended on white powdercoated rods all as per detail drawing Lay 350 A</u>				
	Note : Contractor to submit shop drawing for Architects and Structural Engineer approval prior to Manufacture				
56	Combine standard fire signage comprissing of direction sign and running man to right or left hand direction in front and at the back including fixing to ceiling	No			
57	190 x 190 x 3mm Thick white perspex international FB2 sign plate with red fire extinguisher symbol plugged to brickwork	No			
58	190 x 190 x 3mm Thick white perspex international FB2 sign plate plugged to door	No	4		
	<u>"FRANKE" STAINLESS STEEL GRADE 304 GRAB RAILS</u>				
	<u>All Grab rails are to comply with the requirements of National building regulations Part "S" & Code of practice No 0246/1993.Specifications to Department of Public works standard details and specification / approval.</u>				
59	Cisiterm back rail CNTXBR, Code 359910 Size 750x 206 deep fixed to wall as per manufatures specifications at the height and position as shown on the room data sheets.	No	4		
	Carried to Collection				
	Builders Work				
	Bill No. 8				
	Ironmongrey				

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60	Tilting Side bar Code 12005 Size 800 fixed to wall as per manufactures specifications at the height and position as shown on the room data sheets.	No	4		
61	Paraplegic Angle Bar CNTXPAR. Code 359885 fixed to walls as per manufactures specifications and room data sheets.	No	4		
62	Straight Rail CNTX750, Code 359874 Size 750 x 96 Deep fixed to wall as per manufactures specifications at the height and position as shown on the room data sheets.	No	4		
Carried to Collection					R
Builders Work					
Bill No. 8					
Ironmongrey					

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Item No	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>			
<u>BILL NO 9</u>			
<u>METALWORK</u>			
<u>PREAMBLES</u>			
Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities.			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Welded Joints</u>			
All welding and clad electrodes shall comply with the requirements of SABS 1200H. All welded joints shall be continuous electrically welded fillet joints with a throat thickness of 6mm or equal to the thickness of the smallest profile. Any deformed steelwork caused by welding shall be rejected and no claim whatsoever will be entertained for rectification of deformed work or for repairs to damaged painting. All continuous rails, etc. shall be in long lengths with flush butt welds.			
<u>Aluminium doors, windows, etc</u>			
Doors and windows shall comply with AAAMSA design criteria			
Glazing shall comply with SAGGA regulations. Glass shall be type as shown on the window schedules/drawings appended to these bills of quantities (as described in the headings to window descriptions). Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings			
Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed			
Carried to Collection			R
Builders Work Bill No. 9 Metalwork			

For purpose made windows and doors, refer to drawings annexed to these bills of quantities

The following certificates shall be provided prior to commencement of site work:

- 1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product
- 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively
- 3 A power guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process
- 4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked
- 5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years

All welding and clad electrodes shall comply with the requirements of SABS 1200H. All welded joints shall be continuous electrically welded fillet joints with a throat thickness of 6mm or equal to the thickness of the smallest profile. Any deformed steelwork caused by welding shall be rejected and no claim whatsoever will be entertained for rectification of deformed work or for repairs to damaged painting. All continuous rails, etc. shall be in long lengths with flush butt welds.

Carried to Collection

Builders Work
Bill No. 9
Metalwork

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Rates

Prices for metalwork are to include as necessary for the manufacture, supply, delivery, setting up, hoisting, levelling and fixing in position as well as for cutting to lengths, straight cutting and waste, square notches, running joints, rivets, forming, threading, forging, turning, fitting, assembling, bolting, riveting, brazing, soldering, welding and neatly filing smooth, temporary props, etc.

Trades Names

All trade names deemed to mean "or similar approved" (prior to tender closing date)

STEEL HANDRAILS, BALUSTRADES, ETC

1	50mm diameter horizontal and raking seamless pipe section handrailing including mild steel supports welded to coverplate and bolted, including all angles, cuttings, bolts etc,	m	363
2	Extra over for bend	No	24

PRESSED STEEL DOOR FRAMES**2.0mm Double rebated frames suitable for half brick walls**

3	Frame for door 813 x 2032mm high	No	15
4	Frame for door 948 x 2032mm high	No	4

2.0mm Double rebated frames suitable for one brick walls

5	Frame for door 0,813 x 2,032m high	No	5
6	Frame for door 1700 x 2,100m high	No	2

WELDED SCREENS, GATES, ETC**Screens and gates to include poles and corner poles, etc.**

7	G01 - Single gate 900 x 2100mm high, complete with frame as per the architect drawings	No	2
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ALUMINIUM GENERALLY

Carried to Collection

Builders Work
Bill No. 9
Metalwork

R

(WORK GROUP 140)

All Architectural aluminium work ie. doors, windows, louvres, etc must carry the certification seal of the Association of Architectural Aluminium Manufacturers of South Africa and no items which are not certified will be accepted on siteSafety and security glazing materials shall comply with SABS 1263

SUPPLEMENTARY PREAMBLES

Aluminium sections

Flimsy sections which are easily bent or damaged in normal use will not be acceptable and the window units must be capable of withstanding public use for the life of the building. Window frames shall be unequal leg allowing for plastered finish on the insideAluminium alloy for powder coating is to be produced to British Standard Specification 1470, 1471 or 1474

Corners, joints and glazing beads should be accurately mitred or notched and there must be no sharp edges or unsightly gaps when viewed from a distance of 3 metresWindow frames are to be prepared for glazing from the outside and fixed with extruded snap-on type aluminium glazing beads which are to be powder coated to the same colour and specification as the window frames themselves

The frames to be formed perfectly flat, truly square and properly jointed at angles and intersections. Opening sections must fit perfectly on all faces and must open and close freely without binding at any point. Windows are to be fitted with felt inserts to provide a perfect seal when closedAll necessary fittings are to be attached to the frames ans sashes in the strongest possible manner and they shall retain the sashes rigidly in the open or closed positionThe manufacturers' own methods of construction may be used throughout provided that all joints are the strongest of their kind and are neatly formed to give the best possible appearance. All windows are to be left in perfect working order on completion of the project

Carried to Collection

Builders Work
Bill No. 9
Metalwork

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Powder coating

The powder coating to be applied to all doors and window is to be colour Burgundy and is to be finished with a gloss finish. All powder coating is to be subject to a 15 year guarantee which is to be provided by the applicator in writing. The thickness of the powder coating is to be a minimum 60 microns. The work is to be undertaken in accordance with British Standard 6496 or SABS 1578. The powder coating shall also be applied by an approved applicator who is able to comply with the requirements of the required standards and who must be registered by the manufacturers of the guaranteed products.

Waterproofing

Window frames generally are to be waterproof and this shall also apply when they are installed and closed.

Because the windows are being built into plastered walls, they are to be sealed using a dymonic nt polyurethane elastometric uv resistant flexible joint sealant on the two reveal sides as well as the cill suitable for painting.

Protection

All windows are to be protected against damage during handling, transport to site, building in and final completion. This will require that they are fully wrapped or taped to protect the powder coating throughout the construction process. Protective wrapping is to be fully removed on completion. It is recommended that the Contractor liaise with the Supplier regarding protection of windows and glass from the time that they have been installed until completion of the project.

Fixing

The frames shall be fitted with the manufacturer's standard type of fixing lug which is to be no less than 19 x 3 x 150mm long which is to be screwed to the frame. These are to be placed one near to each corner and intermediately not more than 450mm apart to sides, top and bottom.

Carried to Collection

Builders Work
Bill No. 9
Metalwork

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Sample

Once the order has been placed for the windows, the Contractor will be required to provide a full size example of a window incorporating an opening section with burglar bars. This will be subject to scrutiny by the Architects who will check the window for compliance with the specifications. Various amendments could be called for but in any event, the approved sample is to be left on site as an example of the requirements for all windows to be provided as part of this project. Any windows brought to site which do not comply with the sample will be required to be removed and replaced

Drawings

NOTE: Tenderers are referred to Architect's drawings included at the end of these Bills of Quantities for tender purposes

S10 - Neutral (min) 6.38mm laminated safety glazing or similar approved. Thickness and structural character to be specified, approved and reported on by competent person. All glazing to adhere to the requirements of SANS 10137 Glazing to be intruder proof. All Aluminium must comply with AAAMSA minimum design standards

Window specification : aluminium window with stainless steel concealed friction stays, complying with AAAMSA performance criteria A3, glazed in accordance with SANS 10160, SANS 10137, SANS 10400.(part n of section 3) and SANS 1263 with clear, fitted with clip-on glazing, fitted with clip-on glazing beads with gasket seals with lugs plugged and screwed to brickwork or concrete, all in accordance with AAAMSA selection guide for glazed aluminium architectural aluminium products - June 2008.

8	W1 Window size 1312 x 2700mm high overall installed as Architects drawing	No	2
9	W2 Window size 3000 x 500mm high overall installed as Architects drawing	No	1
10	W3 Window size 1405 x 3455mm high overall installed as Architects drawing	No	4
11	W4 Window size 302 x 3455mm high overall installed as Architects drawing	No	4

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Builders Work
Bill No. 9
Metalwork

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12	W5 Window size 1500 x 1355mm high overall installed as Architects drawing	No	2
13	W6 Window size 3014 x 1389mm high overall installed as Architects drawing	No	4
14	W7 Window size 2105 x 1920mm high overall installed as Architects drawing	No	7
15	W8 Window size 1500 x 1500mm high overall installed as Architects drawing	No	10
16	W09 Window size 1263 x 2700mm high overall installed as Architects drawing	No	2
17	W10 Window size 600 x 600mm high overall installed as Architects drawing (triangular)	No	12
18	W11 Window size 900 x 900mm high overall installed as Architects drawing	No	2
19	W12 Window size 1235 x 3000mm high overall installed as Architects drawing	No	4
20	W13 Window size 6000 x 400mm high overall as Architects drawing	No	1
21	W14 Window size 2470 x 1122mm high overall as Architects drawing	No	4
22	W15 Window size 1520 x 1877mm high overall installed as Architects drawing	No	4
23	W16 Window size 2960 x 2490mm high overall installed as Architects drawing	No	2
24	W17 Window size 1200 x 1200mm high overall installed as Architects drawing	No	1
<u>ALUMINIUM GLAZED DOORS AND FRAMES</u>			
<u>Natural Anodised aluminium frames and Windows including sealing all around frame against walls with an all purpose silicone sealer</u>			
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Builders Work Bill No. 9 Metalwork			

31	Double ended strong room ventilator	No	2	
	<u>GALVANIZED STEEL ROLLER SHUTTER DOORS</u>			
	<u>NOTE:</u>			
	Roller shutter doors to have a spring balanced jamb lifting mechanism with pull down handle with central locking handle and catches			
32	Glazed door size 3000 x 2100mm high custom manufactured, manually operated xpanda or similar approved fenestra type roller shutter door with ventilation openings. D 11 As per drawing	No	1	

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Item No	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>			
<u>BILL NO 11</u>			
<u>TILING</u>			
<u>PREAMBLES</u>			
Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities.			
<u>SUPPLEMENTARY PREAMBLES</u>			
Descriptions			
Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
<u>Fixing</u>			
Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the "Tal Professional" range of products as recommended by the manufacturer of the tiles			
<u>Samples</u>			
With reference to all items and colour schemes: Samples off all items is to be presented for approval prior to any bulk orders.			
<u>Trades Names</u>			
All trade names deemed to mean "or similar approved" (prior to tender closing date)			
<u>WALL TILING</u>			
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Builders Work Bill No. 11 Tiling			

Section No. 2

Builders Work

Bill No. 11

Tiling

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Builders Work
Bill No. 11
Tiling

R

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 12</u>			
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>			
	<u>PREAMBLES</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Sealing of edges</u>			
	Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone			
	<u>uPVC pipes and fittings</u>			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
	Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings			
	<u>Reducing fittings</u>			
	Where fittings have reducing ends or branches they are described as "reducing" and 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			
	<u>Fixing of pipes</u>			
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level			
	Carried to Collection			
	Builders Work			
	Bill No. 12			
	Plumbing and Drainage			
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General

Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately)

Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends

Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)

As-built drawings

Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere)

RAINWATER DISPOSAL**0,6mm Industrial type pre-painted seamless Aluminium rainwater gutter and down pipe**

- | | | | |
|---|---|----|----|
| 1 | 200 x 160mm Rectangular section eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres | m | 60 |
| 2 | Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating | No | 8 |

Aluminium

- | | | | |
|---|---|----|----|
| 3 | 100mm Diameter rainwater downpipe with brackets fixed to brick wall or concrete | m | 26 |
| 4 | Extra over for shoe | No | 8 |

SANITARY FITTINGS**Carried to Collection**

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Builders Work
Bill No. 12
Plumbing and Drainage

	<u>"Contour" or similar approved</u>				
5	Contour 21 Armitage Shanks commercial grade drop in vanity basin and fixed to wall using fixation bolts	No	13		
6	Contour 21 46cm raised height closed coupled WC and double flap seat (S305401)	No	7		
	<u>"Vaal" or similar approved</u>				
7	Vaal "Protea" low level PARAPLEGIC suite comprising floor mounted pan, 9L cistern complete and including cp side flush lever arm and double flap toilet seat	No	4		
8	VAAL vitreous china flat back urinal as 'LAVATERA 705426 top entry' size 600x385x380mm, including 38mm chromium plated domical grating as 'Vaal 8787ZO' and two hanger brackets as 'Vaal 8127ZO' and 7054Z1 top entry fittings	No	1		
	<u>Stainless steel</u>				
9	Drop-in type sink and drainer of grade 304 (18/8) stainless steel size 1 200 x 535mm wide single end bawl sink including chromium plated waste, plug and chain and bedded in opening (elsewhere) in timber worktop in silicone.	No	1		
	<u>TRAPS ETC</u>				
	<u>Chromium plated</u>				
10	Flexible connectors, etc.	No	2		
	Note: All traps are to include for connectors and fitting to waste outlet at one end and to waste pipe at other end				
	<u>uPVC</u>				
11	32mm UPVC anti vacuum trap fixed to 50mm UPVC pipe including adaptors	No	1		
12	110mm uPVC to stainless steel adaptor	No	1		
	<u>"Cobra Watertech" or similar approved</u>				
13	15mm CP angle valve with 350mm cp braided connector	No	38		
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	Builders Work				
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	Plumbing and Drainage				

14	40-40mm Chromium plated bottle trap	No	15		
<u>WASTE UNIONS ETC</u>					
<u>"Cobra Watertech" or similar approved</u>					
15	'Ref 303' 32mm Machine CP slotted basin waste union	No	11		
16	'Ref 309-32' anti-theft plug	No	15		
17	Flushmaster Junior Code FJ6.000' exposed type flush valve complete with wall flanges as 'C-FJZ1.3' and fix in position to brass connector (elsewhere measured) and to urinal spreader	No	1		
18	Flushmaster Junior FJ 2.210' exposed type flush valve complete with integral vacuum breaker, inlet control stop and backplate and with standard chromium plated straight flush pipe and flush pipe connector, and fix in position and joint to brass connector elsewhere measured) and to vertical inlet of slop hopper	No	1		
<u>TAPS, VALVES, ETC</u>					
<u>Valves, etc. including joints to steel pipes and/or fittings unless otherwise described</u>					
19	15mm Chromium plated sink mixer	No	1		
20	15mm Brass stopcock	No	4		
21	Cobra Watertech 15mm chrome plated elbow action raised nose pillar tap with blue indicator for cold water (Code: 503-21B), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No	8		
22	Cobra Watertech Star 20mm pillar tap with flanged backnut (Code: 211-20), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No	18		
<u>SANITARY PLUMBING</u>					
<u>uPVC soil and vent pipes</u>					
23	50mm Pipe fixed in walls, ceilings, roofs, floors, etc	m	61		
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Builders Work					
Bill No. 12					
Plumbing and Drainage					

24	110mm Pipe and fixing to walls, etc	m	10
<u>Extra over uPVC soil and vent pipes for fittings</u>			
25	50mm Bend	No	40
26	50mm Access bend	No	15
27	50mm Junction	No	14
28	50mm Access junction	No	14
29	110mm Pan connector	No	11
30	50mm 345/50 CP bottle trap	No	4
31	110mm Bend	No	7
32	110mm Access bend	No	11
33	110mm Junction	No	7
34	110mm Access junction	No	7
35	110mm "GI Two-way" vent valve	No	11
<u>WATER SUPPLIES</u>			
<u>Class 0 copper pipes with capillary couplings</u>			
36	15mm Pipes	m	81
37	22mm Pipes	m	62
<u>Extra over Class 0 copper pipes for compression fittings</u>			
38	15mm fittings	No	97
39	22mm fittings	No	42
<u>Testing</u>			
40	Testing water pipe system		Item
Carried to Collection			
Builders Work			
Bill No. 12			
Plumbing and Drainage			

R

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2	External walls	m ²	578
<u>ON PLASTER BOARD</u>			
<u>Prepare stop and apply one alkali resistant primer to SABS 1414 and two finishing coats "Double Velvet" acrylic emulsion paint to SABS 1586 Grade 1</u>			
3	On ceilings and cornices	m ²	24
<u>ON FIBRE-CEMENT BOARD SURFACES</u>			
<u>One coat 'Plascon Professional Waterbased Gypsum Sealer' and two coats 'Professional Super Matt' paint</u>			
4	Fascias boards and barge boards, including priming metal jointing strips	m ²	29
<u>METAL SURFACES WITH</u>			
<u>Spot priming defects in pre-primed surfaces with zinc phosphate metal primer, one coat universal undercoat and two coats super universal enamel paint</u>			
5	Door frames	m ²	7
<u>WOOD SURFACES</u>			
<u>One coat wood primer, one undercoat and two coats alkyd enamel paint</u>			
6	Doors	m ²	102
<u>One coat alkali resistant plaster primer, one coat universal undercoat and two coats eggshell enamel paint</u>			
7	Ceilings and cornices	m ²	24
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Builders Work			
Bill No. 14			
Paintwork			

Section No. 2

Builders Work

Bill No. 14

Paintwork

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Builders Work

Bill No. 14

Paintwork

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Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 3</u>			
	<u>BILL NO 1</u>			
	<u>BULK EARTHWORKS</u>			
	<u>(WORK GROUP NO. 104)</u>			
	Unless otherwise described, the preambles and full descriptions of the items in the preceeding Bills are to apply equally to this Bill			
	<u>PREAMBLES</u>			
	For preambles see "Model Preambles for Trades 2008" as issued by The Association of South African Quantity Surveyors			
	For additional preambles see "SABS 1200" as issued.			
	<u>Nature of ground</u>			
	A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured			
	<u>Carting away of excavated material</u>			
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site			
	<u>SABS 1200 C</u>			
	<u>SITE CLEARANCE</u>			
1	Clear and grub site	m ²	2 398	
	<u>SABS 1200 D</u>			
	<u>EARTHWORKS (SMALL WORKS)</u>			
	Carried to Collection			
	External Works			
	Bill No. 1			
	Bulk EarthWorks			

Excavations**Cut to spoil or stockpile from:**

2	Remove topsoil to nominal depth 150mm, stockpile and maintain	m ³	433
3	Remove topsoil, to spoil	m ³	
4	Allow for keeping all excavations entirely free from water and mud		Item

BULK EXCAVATION, FILLING, ETC**Excavations, filling, etc.:**

5	Cut to fill including compaction to 93% Mod AASHTO density.	m ³	
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Cut to spoil:

6	Soft excavations	m ³	271
7	Cut to spoil or stockpile as instructed by the Engineer	m ³	

Finishings

8	Topsoiling of terrace banks etc, to a depth of 150mm	m ²	
9	Landscaping and grassing where required	m ²	

Carried to Collection**R**

External Works
 Bill No. 1
 Bulk EarthWorks

Section No. 3

External Works

Bill No. 1

Bulk EarthWorks

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External Works

Bill No. 1

Bulk EarthWorks

R

Item No		Quantity	Rate	Amount R
	<u>SECTION No. 3</u>			
	<u>BILL No. 2</u>			
	<u>STORMWATER DRAINAGE, SOIL DRAINAGE</u>			
	<u>PREAMBLES</u>			
	For Preambles see "Model Preambles For Trades"			
	All excavations are measured as being in "earth" and/or filling compacted to 98% modified AASHTO density			
	Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the Contractor's method of operation			
	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 and for bulking			
	<u>FORMWORK</u>			
	<u>Movement joints</u>			
	<u>STORMWATER DRAINAGE</u> Mass concrete with a coarse aggregate of 19mm and a minimum compressive strength of 15MPa at 28 days			
	<u>SABS 1200 MK</u>			
	<u>Excavations</u>			
	For pipe up to 650 mm diam. for total trench depth Exceeding but not exceeding			
1	Excavation exceeding 1.0 m up to and including 1.5 m.	m	34	
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	External Works			
	Bill No. 2			
	Stormwater Drainage, etc			

2	Excavation exceeding 1.5 m up to and including 2.0 m.	m	335
3	Excavation exceeding 2.0m up to and including 2.5m.	m	229
4	Excavation exceeding 2.5m up to and including 3.0m.	m	25

BEDDING**Provision of bedding and covering material from commercial source.**

5	Provision of bedding and covering material from designated borrow pits, compaction thereof measured in excavation items,	m ³	29
6	Selected fill material for blanket as specified for Class C cradle beddings, compacted uniformly in layers with light compaction directly over pipes, ensuring that no stones are amongst the blanket materials	m ³	123

PIPES**Supply, handle, lay, bed on Class C with spigot and socket concrete pipes**

7	450mm diameter Class 75D	m	107
8	600mm diameter Class 75D	m	162

Headwall**Construct headwall on 600mm diameter pipe complete as per Drawing**

9	From 0m up to 1.0m deep	No	1
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Carried to Collection

External Works
 Bill No. 2
 Stormwater Drainage, etc

R

Item No	Quantity	Rate	Amount R
<u>SECTION NO. 3</u>			
<u>BILL NO. 3</u>			
<u>SOIL DRAINAGE</u>			
Unless otherwise described, the preambles and full descriptions of the items in the proceeding Bills are to apply equally to this Bill			
<u>(WORK GROUP 146 UNLESS OTHERWISE STATED)</u>			
<u>PREAMBLES</u>			
For preambles see "Model Preambles for Trades 2008" as issued by The Association of South African Quantity Surveyors			
For additional preambles see "SABS 1200" as issued.			
<u>uPVC pipes and fittings:</u>			
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings.			
<u>uPVC pressure pipes and fittings:</u>			
Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings. Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.			
<u>Reducing fittings:</u>			
Where fittings have reducing ends or branches they are described as 'reducing' and 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.			
Carried to Collection			R
External Works Bill No. 3 Soil Drainage			

Fixing of pipes:

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

Disinfection of water pipework:

Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere).

Laying, backfilling, bedding, etc., of pipes:

Pipes shall be laid and bedded in accordance with manufacturers' instructions or in accordance with engineers details and trenches shall be carefully backfilled.

Where no manufacturers' instructions exist, pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following: SABS 1200L :

Medium-pressure pipelines SABS 1200 LD

: Sewers SABS 1200 LE :

Stormwater drainage Pipe trenches, etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200DB : Earthworks (Pipe trenches). Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB : Bedding (Pipes) Unless otherwise described bedding of rigid pipes shall be Class B bedding

General:

Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 98% Mod AASHTO density and disposal of surplus material on site.

As-built drawings:

Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere).

Carried to Collection

External Works
Bill No. 3
Soil Drainage

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SABS 1200 C**EXCAVATIONS**

Excavate in all materials for trenches, compact the trench bottom to 90 % MOD AASHTO density, backfill by hand in layers of not exceeding of 150 mm in thickness using excavated material unless otherwise instructed by the Engineer in writing, compact the layers to 90 % MOD AASHTO density, dispose of all surplus and / or unsuitable material within free haul distance at a place as shall be instructed by the Engineer for pipe sizes of 50 mm to 315 mm diameter for depths as described below (any changes and / or deviations from the designs are to be agreed upon, confirmed by the Engineer on site and recorded in the site instruction book

1	Excavation exceeding 0.5 m up to and including 1.0 m.	m ³	23
2	Excavation exceeding 1.0 m up to and including 1.5 m.	m ³	89
3	Excavation exceeding 1.5 m up to and including 2.0 m.	m ³	51

BEDDING**Provision of bedding and covering material from commercial source**

4	Selected fill material for flexible pipe bedding cradle of granular material, compacted uniformly in layers with light compaction directly over pipes, ensuring that no stones are amongst the blanket materials, the Engineer must inspect, approve and record each section of 300 mm thick covering fill in the site instruction book and each approval must accompany the certificates for payment purposes	m ³	39
5	Selected fill material for blanket as specified compacted uniformly in layers with light compaction directly over pipes, ensuring that no stones are amongst the blanket materials, the Engineer must inspect, approve and record each section of 300 mm thick covering fill in the site instruction book and each approval must accompany the certificates for payment purposes	m ³	26

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External Works
Bill No. 3
Soil Drainage

6	Backfilling material, compacted uniformly in layers with light compaction directly over pipes, ensuring that no stones are amongst the blanket materials, the Engineer must inspect, approve and record each section of 300 mm thick covering fill in the site instruction book and each approval must accompany the certificates for payment purposes	m³	95	
	<u>SABS 1200 LD</u>			
	<u>Supply and lay, handle, bed on Class C (or as specified by the Engineer) bedding, joint test and connect into manholes various sewer pipes of the following sizes and types (compaction measured under Items above of this bill of quantities.</u>			
7	110mm uPVC class 34	m	188	
	<u>Extra over UPVC pipes for fittings</u>			
8	110mm Rodding eye	No	4	
	<u>THE FOLLOWING IN PRE-FABRICATED PRECAST CONCRETE MANHOLES</u>			
	<u>Supply and install 1 000 mm diameter concrete manhole rings (SABS 558 Type 4) including the reinforced concrete cover slab with steel ring, step irons cast into concrete rings at 300 mm staggered intervals. The rate shall cover the cost of all necessary excavations in all types of materials, the backfill in 150 mm thick layers compacted to 90 % MOD AASHTO density, the compaction of ground before the placing of base commences to 90 % MOD AASHTO density, the connection of the main sewer pipes to the manhole and the water tight sealing of the structure as per specifications in SABS 1 200 DB 8.3.2 and 8.3.3 as well as SABS 1 200 LD 3.6 for the following depths (depths are to be confirmed from the relevant longitudinal section drawings supplied in the construction drawings for this contract, any changes and / or deviations from the designs are to be confirmed and agreed upon by the Engineer or his representative on site, recorded in the site instruction book and accompany the relevant certificates for payment purposes) :</u>			
9	From 1.0 m up to and including 1.5 m	No	6	
	Carried to Collection			R
	External Works			
	Bill No. 3			
	Soil Drainage			

10	From 1.5m up to and including 2.0m	No	5		
11	From 2.0m up to and including 2.5m	No	2		
<u>Sundries</u>					
12	Gulley not exceeding 1m deep to invert comprising 100mm diameter vitrified clay gulley trap and head, fitted with 190mm diameter cast iron grating, including excavating for, bedding on and encasing in 15MPa/19mm mass concrete and fitted with and including precast gulley top bedded in (3:1) cement mortar	No	3		
13	ABC cast iron straight or bent cleaning eye with removable cover jointed to 100mm vitrified clay pipe and set in and including 15MPa/19mm mass concrete surround with exposed surfaces trowelled smooth	No	4		
<u>Sewer Ancillary Items</u>					
14	Anchor trust blocks and pedestals using mass concrete of 15 Mpa mix strength where required by the Engineer on the site, recorded in the site instruction book and forwarded with the relevant certificates for payment purposes, rate shall include the cost of concrete, reinforcement, form work, excavation, back fill, excavation , backfill, compaction etc.	m ³	1		
<u>Testing</u>					
15	Testing and commissioning	No	1		
<u>Municipal Connection</u>					
16	110 mm, built into manhole	No	2		
Carried to Collection				R	
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Bill No. 3					
Soil Drainage					

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CONCRETE KERBING AND CHANNELLING

Precast kerbing to SABS 927: Figure 3 Barrier kerb with 300mm channel including concrete base, backing and haunching as per standard detail drawing

13 Radius <20m m

14 Radius over 20m and straight section m

Precast kerbing Figure 12 Edge restrain with including concrete base, backing and haunching as per standard detail drawing

15 Radius <20m m

16 Radius over 20m and straight section m

**3m Long 150mm diameter aluminium supports
Statutory signs supplied and erected complete**

Standard "STOP" sign R Type A

17 914mm No

Road marking

Non-reflectorized paint applied at nominal rate of 0.42/m²

18 White unbroken lines 100mm wide m

19 White painted symbols as per standard details m²

Breaking up existing Pavement layers

20 Saw cutting asphalt & concrete per linear meter to a maximum depth of 500mm: m

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External Works
Bill No. 4
Roads and Parkings

R

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	<u>25MPa/19mm concrete</u>				
7	Strip footings	m ³	16		
	<u>Rectangular cast insitu concrete surface water channels</u>				
8	100mm Thick shallow equal 'V' shaped rectangular concrete drainage channel 1m wide overall including all earthworks, formwork and ref 193 mesh reinforcement cast in panels not exceeding 3m long, backfilling etc and finishing tops and sides smooth with a wood float, joints and joints forming material.	m	91		
	<u>CONCRETE SUNDRIES</u>				
	<u>Finishing top surfaces of concrete smooth with a wood float/steel trowel</u>				
9	Surface beds, ramps, slabs, aprons, etc laid in panels to falls and currents	m ²	73		
	<u>ROUGH FORMWORK</u>				
	<u>REINFORCEMENT (PROVISIONAL)</u>				
	<u>(WORK GROUP NO.114)</u>				
	<u>Mild steel and high tensile steel reinforcement to structural concrete work</u>				
10	Various diameter bars	t	1.09		
	<u>Fabric reinforcement</u>				
11	Type 193 fabric reinforcement in concrete aprons	m ²	73		
	<u>SUBSOIL DRAINAGE</u>				
12	110mm Slotted uPVC agricultural pipes laid in and including 19mm crushed stone encasing behind retaining walls and Kaymat U14 non woven geofabric filter blanket wrapped around encasing with 150mm side and 300mm end laps including stitching (no excavation) behing wall in basement.	m	46		
	<u>INTERLOCKING PLANTER UNITS</u>				
Carried to Collection				R	
External Works Bill No. 5 Loffelstein Retaining Structures					

	<u>"Corobrik Geolok S10" or similar approved precast concrete interlocking planter units finished smooth on exposed surfaces, laid to not exceeding 65 degrees slope, including filling with G5 and two rows of 170 x 170 x 15mm stone weep holes approximately 1200mm deep at 1,500mm horizontally, all to be in strict accordance with manufacturer's instructions (Backfilling and footings elsewhere measured)</u>				
13	Various Heights (G5)	m ²	340		
	<u>"Corobrik Geolok M10" or similar approved precast concrete interlocking planter units finished smooth on exposed surfaces, laid to not exceeding 65 degrees slope, including filling with G5 weep holes at 3000mm horizontally, all to be in strict accordance with manufacturer's instructions (Backfilling and footings elsewhere measured)</u>				
14	Various Heights (G5)	m ²	177		
	<u>"Corobrik Geolok M10" or similar approved precast concrete interlocking planter units finished smooth on exposed surfaces, laid to not exceeding 65 degrees slope, including filling with concrete and weep holes approximately 1200mm deep at 3000mm c/c, all to be in strict accordance with manufacturer's instructions (Backfilling and footings elsewhere measured)</u>				
15	Various Heights (C)	m ²	293		
	<u>FILTER FABRIC</u>				
	<u>'Kaymat U14' non woven geofabric filter blanket (or similar approved)</u>				
16	Vertically behind interlocking dry stack retaining blocks including keeping in place as work progresses	m ²	114		
Carried to Collection					R
External Works					
Bill No. 5					
Loffelstein Retaining Structures					

Item No		Quantity	Rate	Amount R
<u>SECTION NO. 3</u>				
<u>RETAINING STRUCTURES AND SCREEN WALLS</u>				
<u>BILL NO 6</u>				
<u>(WORK GROUP NO.104)</u>				
The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (1999 Edition) and to the Supplementary Preambles which are deemed to be incorporated herein.				
<u>CONCRETE RETAINING STRUCTURES.</u>				
<u>Excavation in earth not exceeding 2m deep</u>				
1	Trenches	m ³	57	
<u>Back excavation of vertical sides of excavation in earth for working space including backfilling compacted to 93% Mod AASHTO density</u>				
2	Exceeding 1500mm and not exceeding 3000mm deep for placing and removing formwork to bases, strip footings etc against excavated face.	m ²	152	
<u>Extra over trench and hole excavations in soft material for excavating in</u>				
3	Soft rock	m ³	3	
<u>Risk of collapse of excavations</u>				
4	Sides of trench and hole excations not exceeding 1,5m deep	m ²	152	
<u>Stabilised backfill material with 6% cement supplied by the contractor compacted to 93% Mod AASHTO density</u>				
5	Behind retaining walls	m ³	46	
Carried to Collection				R
External Works				
Bill No. 6				
Concrete retaining walls				

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<u>(WORK GROUP NO.114)</u>					
<u>Mild steel and high tensile steel reinforcement to structural concrete work</u>					
13	Various diameter bars	t	9.14		
<u>SUBSOIL DRAINAGE</u>					
14	110mm Slotted uPVC agricultural pipes laid in and including 19mm crushed stone encasing behind retaining walls and Kaymat U14 non woven geofabric filter blanket wrapped around encasing with 150mm side and 300mm end laps including stitching (no excavation) behing wall in basement.	m	40		
<u>BRICKWORK LINING TO CONCRETE</u>					
<u>Brickwork of NFP bricks in class II mortar</u>					
15	Half Brick wall lining to concrete	m ²	152		
<u>BRICKWORK SUNDRIES</u>					
<u>Galvanised hoop iron cramps, ties, etc</u>					
16	30 x 1,6mm Wall tie 500mm long with one end shot pinned to concrete and other end built into brickwork	No	3		
<u>Brickwork reinforcement</u>					
17	75mm Wide reinforcement built in horizontally	m	457		
<u>FACE BRICKWORK</u>					
<u>Faced brickwork facings in approved semi face bricks (FBS) " Silver satin Grey" pointed with square recessed horizontal and vertical joints</u>					
18	Extra over brickwork for face brickwork to lining	m ²	152		
Carried to Collection					
External Works					
Bill No. 6					
Concrete retaining walls					

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External Works

Bill No. 6

Concrete retaining walls

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External Works

Bill No. 6

Concrete retaining walls

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Item No		Quantity	Rate	Amount R
<u>SECTION NO. 3</u>				
<u>RETAINING STRUCTURES AND SCREEN WALLS</u>				
<u>BILL NO 7</u>				
<u>(WORK GROUP NO.104)</u>				
The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (1999 Edition) and to the Supplementary Preambles which are deemed to be incorporated herein.				
<u>DRY STACK RETAINING STRUCTURES</u>				
<u>Excavation in earth not exceeding 2m deep</u>				
1	Trenches	m ³	193	
<u>Risk of collapse of excavations</u>				
2	Sides of trench and hole excations not exceeding 1,5m deep	m ²	523	
<u>Stabilised backfill material with 6% cement supplied by the contractor compacted to 93% Mod AASHTO density</u>				
3	Behind retaining walls	m ³	113	
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
<u>(WORK GROUP NO.110)</u>				
<u>15MPa/19mm concrete</u>				
4	Blinding	m ³	11	
<u>25MPa/19mm concrete</u>				
5	Strip footings	m ³	13	
6	Concrete infill to walls	m ³	21	
Carried to Collection				R
External Works				
Bill No. 7				
Brick Retaining Structures and Screen Walls				

ROUGH FORMWORK**REINFORCEMENT (PROVISIONAL)****(WORK GROUP NO.114)****Mild steel and high tensile steel reinforcement to structural concrete work**

7	Various diameter bars	t	1.64
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Fabric reinforcement

8	Type 617 fabric reinforcement in walls	m ²	127
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SUBSOIL DRAINAGE

9	110mm Slotted uPVC agricultural pipes laid in and including 19mm crushed stone encasing behind retaining walls and Kaymat U14 non woven geofabric filter blanket wrapped around encasing with 150mm side and 300mm end laps including stitching (no excavation) behing wall in basement.	m	76
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FOUNDATIONS (PROVISIONAL)**Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar**

10	One Brick walls	m ²	26
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11	340mm Brick walls	m ²	127
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SUPERSTRUCTURE**Brickwork of NFP bricks in class II mortar**

12	One Brick walls	m ²	69
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BRICKWORK SUNDRIES**Brickwork reinforcement**

13	75mm Wide reinforcement built in horizontally	m	227
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FACE BRICKWORK**Carried to Collection**

External Works

Bill No. 7

Brick Retaining Structures and Screen Walls

R

Section No. 3

External Works

Bill No. 7

Brick Retaining Structures and Screen Walls

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External Works

Bill No. 7

Brick Retaining Structures and Screen Walls

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 3</u>			
	<u>BILL NO 8</u>			
	<u>WALKWAYS AND EXTERNAL SEATING AREA</u>			
	<u>EARTHWORKS</u>			
	<u>(WORK GROUP NO.104)</u>			
	The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (1999 Edition) and to the Supplementary Preambles which are deemed to be incorporated herein.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Carting away of excavated material</u>			
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site			
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excation in earth not exceeding 2m deep</u>			
1	To reduce level to final levels under floors etc	m ³	272	
	<u>Extra over all excavations for carting away</u>			
2	Surplus material from excavations and/or stock piles on site to dumping site	m ³	182	
	<u>Risk of collapse of excavations</u>			
3	Sides of trench and hole excations not exceeding 1,5m deep	m ²	38	
	<u>Keeping excavations free of water</u>			
4	Keeping excavations free of all water other than subterranean water	No	1.00	
	Carried to Collection			R
	External Works			
	Bill No. 8			
	Covered Pedestrian Walkways			

<u>G7 Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u>		
5	Under floors, steps, pavings, etc	m ³ 91
<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 98% Mod AASHTO density	m ² 908
<u>Prescribed density test on filling</u>		
7	"Modified AASHTO Density" test	No 30
<u>SOIL POISONING</u>		
<u>Soil insecticide</u>		
8	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in the furrows and ramming	m ² 908
<u>CONCRETE</u>		
<u>(WORK GROUP NO.110)</u>		
<u>SUPPLEMENTARY PREAMBLES</u>		
<u>Cost of tests</u>		
The cost of making, storing and testing of concrete test cubes as required under clause 7 "tests" of SANS 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 independant firm or institution nominated by the contractor to the approval of the engineer. (Test cubes are measured separately)		
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>		
<u>25MPa/19mm concrete</u>		
9	Surface beds on waterproofing cast in panels to falls	m ³ 76
Carried to Collection		
External Works		
Bill No. 8		
Covered Pedestrian Walkways		

10	Steps on fill	m ³	3	
<u>TEST BLOCKS</u>				
11	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	8	
<u>CONCRETE SUNDRIES</u>				
<u>Finishing exposed surfaces of concrete smooth with a wood float</u>				
12	Surface beds, slabs, etc to falls and currents to a non-slip finish	m ²	908	
13	Finish edge of concrete slabs, etc. not exceeding 300mm high to a smooth and even wood floated surface including additional dry sand/cement mixture added as necessary whilst the concrete is still wet including rounded corner along top edge	m	40	
<u>MOVEMENT JOINTS ETC</u>				
<u>Expansion joints with softboard between vertical concrete surfaces</u>				
14	50mm Joints not exceeding 300mm high	m	120	
<u>FORMWORK</u>				
<u>(WORK GROUP NO.111)</u>				
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>				
<u>Smooth formwork to sides</u>				
15	Edge of concrete on seating area	m ²	38	
16	Sloping and stepped outer edges of stairs not exceeding 400mm high extreme in foundations	m	120	
<u>REINFORCEMENT (PROVISIONAL)</u>				
<u>(WORK GROUP NO.114)</u>				
Carried to Collection				R
External Works Bill No. 8 Covered Pedestrian Walkways				

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Item No	Quantity	Rate	Amount R
<u>SECTION NO. 5</u>			
<u>BILL NO 1</u>			
<u>PROVISIONAL SUMS</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Model Preambles for Trades 2008" as issued by The Association of South African Quantity Surveyors			
<u>General</u>			
Work for which budgetary allowances are provided will be measured and valued in accordance with the JBCC Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss of profit on the said allowances			
Prime cost amounts and provisional sums are net. Prime cost amounts shall include for delivery to site of all articles concerned			
Provisional sums are for material and equipment supplied and installed complete by firms of specialists			
<u>Profit</u>			
Where stated, the contractor may allow for profit if required			
Carried to Collection			R
Provisional Sums			
Bill No. 1			
Provisional Sums			

The following provisional sums are for work to be executed by selected contractors which will be regarded as sub-contractors to the Contractor. For Selected sub-contracts, the Contractor will call for quotations selected by the Employer and contractor on documents prepared by the Employer or the relevant Consultant, in accordance with the Principal Building Agreement and in conjunction with the Project Manager.

The Project Manager and the Contractor shall in consultation with the relevant Consultant adjudicate the tenders. The Contractor shall, upon the final decision consult with the client, then appoint the successful tenderer who shall become a sub-contractor to the Contractor.

Privity of the contract shall not be created between the Employer and the Sub-contractor by the method of selection, tender enquiry, adjudication and appointment.

Loss of profit Should any of the specialist items listed in this Bill be substantially reduced or omitted, no claim for "loss of profit" on any of the specialists listed, will be considered

PROVISIONAL SUMS

Pegola Beams Finish

- 1 Provide the sum of R 100 000 (One Hundred thousand rand) for supply and installation of Pegola beam finish complete with posts etc to courtyards.

Item 100 000.00

Joinery fittings

- 2 Provide the sum of R 150 000.00 (One hundred and fifty thousand rand) for supply and installation of all Joinery fittings

Item 150 000.00

- 3 Add for profit upon above, if required.

%

Structural Steel

- 4 Provide the sum of R 0 .00 (NIL) for supply and installation of all Structural steel

Item NIL

- 5 Add for profit upon above, if required.

% NIL

Carried to Collection

R

Provisional Sums
Bill No. 1
Provisional Sums

	MUNICIPAL CONNECTION FEE				
6	Provide the amount of R50 000 for Municipal connection fee for water, sewer and storm water services	Item		50 000.00	
7	Add for profit upon above, if required.		%		
	Electrical Work				
8	Allow Sum of R 500 000 for a electrical works	Item		500 000.00	
9	Add for profit upon above, if required.		%		
	Landscaping				
10	Allow for the sum of R 50 000 for landscaping	Item		50 000.00	
	Signage				
11	Provide the sum of R 20 000 for supply and installation of signage	Item		20 000.00	
	Water supply				
12	Provide the sum of R 30 000 for Water supply	Item		30 000.00	
Carried to Collection					R
Provisional Sums Bill No. 1 Provisional Sums					

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