

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION 1</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>PRELIMINARIES</u></b></p> <p><b><u>BUILDING AGREEMENT AND PRELIMINARIES</u></b></p> <p>The JBCC Series 2000 Edition 4.1 Code 2101 March 2005 2005 edition prepared by the Joint Building Contracts Committee, shall be the agreement, amended as hereinafter described</p> <p>The Preliminaries for use with the JBCC Series 2000 Principal Building Agreement (May 2005 edition) prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated in these bills of quantities</p> <p>Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof</p> <p>These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the above-mentioned documents</p> <p>Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"</p> <p>Notwithstanding anything to the contrary contained in any of the contract documents including the Principal Building Agreement and the Preliminaries, the provision of the "Preliminaries" as hereinafter set forth shall prevail and shall take precedence</p>			
	<b>Carried to Collection</b>		R	
	<p>Section No. 1            PRELIMINARIES AND GENERAL            Bill No. 1            PRELIMINARIES AND GENERAL</p>			

**PREAMBLES FOR TRADES**

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

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

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

**GENERAL**

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

**SECTION A - PRINCIPAL BUILDING AGREEMENT**

**Definitions (A1)**

1 Definitions and interpretation (clause 1)

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

Item

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

<b><u>Objective and Preparation (A2 to A14)</u></b>				
2	Offer acceptance and performance (clause 2)  F:..... V:..... T:.....	Item		
3	Documents (clause 3)  F:..... V:..... T:.....	Item		
4	Design responsibility (clause 4)  F:..... V:..... T:.....	Item		
5	Employer's agents (clause 5)  F:..... V:..... T:.....  The principal agent shall:  - monitor and control progress and scheduling  - monitor all contract conditions, and  - coordinate the efforts of the employer's agents, the contractor and subcontractors  The powers conferred on the principal agent in terms of this clause and/or the exercising of these powers shall not be construed as removing or diminishing any of the obligations of the Contractor in terms of the Principal Building Agreement, whether financial, contractual or otherwise, nor shall the exercising of these powers create any privity of contract as between the Employer or his agents on the one part and the Contractor or subcontractors or suppliers on the other part	Item		
<b>Carried to Collection</b>				R
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

	<p>The principal agent reserves the right to attend and participate in all contractor/subcontractor's meetings, to invite other employer's agents to attend such meetings at his discretion and to converse and chair any such meetings if the contractor is derelict in his duty in arranging such meetings to the degree of frequency and comprehensiveness dictated in the opinion of the project manager by the circumstances and exigencies of the construction process</p>			
6	<p>Site representative (clause 6)</p> <p>F:..... V:..... T:.....</p>	Item		
7	<p>Compliance with regulations (clause 7)</p> <p>F:..... V:..... T:.....</p>	Item		
8	<p>Works risk (clause 8)</p> <p>F:..... V:..... T:.....</p>	Item		
9	<p>Indemnities (clause 9)</p> <p>F:..... V:..... T:.....</p>	Item		
10	<p>Works insurances (clause 10)</p> <p>F:..... V:..... T:.....</p>	Item		
11	<p>Liability insurances (clause 11)</p> <p>F:..... V:..... T:.....</p>	Item		
	<b>Carried to Collection</b>			R
	<p>Section No. 1          PRELIMINARIES AND GENERAL          Bill No. 1          PRELIMINARIES AND GENERAL</p>			

12	Effecting insurance (clause 12)  F:..... V:..... T:.....	Item		
13	NO CLAUSE	N/A		
14	Security (clause 14)  F:..... V:..... T:.....	Item		
<b><u>Execution (A15-A23)</u></b>				
15	Preparation for and execution of the works (clause 15)  F:..... V:..... T:.....	Item		
16	Access to the works (clause 16)  F:..... V:..... T:.....	Item		
17	Contract instructions (clause 17)  F:..... V:..... T:.....	Item		
18	Setting out of the works (clause 18)  F:..... V:..... T:.....  The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc exist in order that the necessary arrangements may be made for the rectification of any such encroachments	Item		
<b>Carried to Collection</b>				R
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

19	Assignment (clause 19)  F:..... V:..... T:.....  The contractor shall not cede his rights or delegate his obligations in terms of this agreement unless specifically called for by the employer	Item		
20	Nominated subcontractors (clause 20)  F:..... V:..... T:.....	Item		
21	Selected subcontractors (clause 21)  F:..... V:..... T:.....  Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted  All amounts allowed under Provisional Amounts are intended to be awarded to Selected Subcontractors	Item		
22	Employer's Direct Contractors (clause 22)  F:..... V:..... T:.....	Item		
23	Contractor's Domestic Sub-Contractors (Clause 23)  F:..... V:..... T:.....  <b><u>Completion (A24-A30)</u></b>	Item		
24	Practical completion (clause 24)  F:..... V:..... T:.....	Item		
<b>Carried to Collection</b>			R	
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

25	Works completion (clause 25)  F:..... V:..... T:.....	Item		
26	Final completion (clause 26)  F:..... V:..... T:.....	Item		
27	Latent defects liability period (clause 27)  F:..... V:..... T:.....	Item		
28	Sectional completion (clause 28)  F:..... V:..... T:.....	Item		
29	Revision of date of practical completion (clause 29)  F:..... V:..... T:.....  The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3)	Item		
30	Penalty for non-completion (clause 30)  F:..... V:..... T:.....	Item		
<b>Carried to Collection</b>			R	
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

<b><u>Payment (A31 - A35)</u></b>				
31	Interim payment to the contractor (clause 31)  F:..... V:..... T:.....	Item		
32	Adjustment to the contract value (clause 32)  F:..... V:..... T:.....  Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing	Item		
33	Recovery of expense and loss (clause 33)  F:..... V:..... T:.....	Item		
34	Final account and final payment (clause 34)  F:..... V:..... T:.....  The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion	Item		
<b>Carried to Collection</b>			R	
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

	<p>The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account</p>			
35	<p>Payment to other parties (clause 35)</p> <p>F:..... V:..... T:.....</p> <p><b><u>Cancellation (A36-A39)</u></b></p>	Item		
36	<p>Cancellation by employer - contractor's default (clause 36)</p> <p>F:..... V:..... T:.....</p>	Item		
37	<p>Cancellation by employer - loss and damage (clause 37)</p> <p>F:..... V:..... T:.....</p>	Item		
38	<p>Cancellation by contractor - employer's default (clause 38)</p> <p>F:..... V:..... T:.....</p>	Item		
39	<p>Cancellation - cessation of the works (clause 39)</p> <p>F:..... V:..... T:.....</p>	Item		
	<b>Carried to Collection</b>			R
	<p>Section No. 1          PRELIMINARIES AND GENERAL          Bill No. 1          PRELIMINARIES AND GENERAL</p>			

40	<p><b><u>Dispute (A40)</u></b></p> <p>Dispute Settlement (clause 40)</p> <p>F:..... V:.....          T:.....</p>	Item	
41	<p><b><u>Substitute Provisions (A41)</u></b></p> <p>State clauses (Clause 41)</p> <p>F:..... V:.....          T:.....</p> <p>Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder</p> <p><b><u>THE SCHEDULE</u></b></p> <p>Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder</p>	Item	
42	<p>Pre-tender information (clause 42)</p> <p>F:..... V:.....          T:.....</p> <p><b><u>42.1 CONTRACTING AND OTHER PARTIES</u></b></p> <p>42.1.1          Employer: As per information on the tender data</p> <p>42.1.2          Principal Agent: As per the information on the Tender data</p> <p>42.1.3          Architect:</p> <p>42.1.4          Quantity Surveyor:</p>	Item	
	<b>Carried to Collection</b>		R
	<p>Section No. 1          PRELIMINARIES AND GENERAL          Bill No. 1          PRELIMINARIES AND GENERAL</p>		

Structural :

42.1.5 Civil:

42.1.6  
 Electrical Engineer:

42.1.6  
 Mechanical Engineer:

**42.2 CONTRACT DETAILS**

42.2.1 Works Description: Construction of sanitation facilities

42.2.2 Site Description: as per the information on the tender data

42.2.3 Work or installations by direct contractors:

N/A

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

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

UNKNOWN

42.2.6 Period for the commencement of the works after the contractor takes posse

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

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

4 months after contractual commencement date *Date*

*Penalty Amount*  
*The penalty per **calendar day** shall be 0.1% of the tenderd amount ( inclusive of value added tax)*

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

**Section 1**  
 .N/A..... *Date*  
 R.N/A..... Penalty Amount

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

*South Africa (country)*

**42.3 INSURANCES**

42.3.1 Contract works insurance to be effected by:

*Contractor:*  
*For the Sum of R Contract Amount + 20.00 %*  
*With a deductible of - to be determined by the contractor*

42.3.2 Supplementary insurance is required

*No*

42.3.3 Public liability insurance to be effected by:

*Contractor:*  
*For the Sum of R 2 500 000-00*  
*With a deductible of - to be determined by the contractor*

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

**42.4 DOCUMENTS**

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

Yes

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

3 Number of

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

“Standard System of Measuring Builders’ Work”

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

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

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

No

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

Yes

Where **JBCC CPAP** is to be used  
*Base Month July 2010*

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

**SECTION B: PRELIMINARIES**

**Definitions and interpretation (B1)**

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

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

Item

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

	<b><u>Documents (B2)</u></b>			
44	Checking of documents (B2.1)  F:..... V:..... T:.....	Item		
45	Provisional bills of quantities (B2.2)  F:..... V:..... T:.....	N/A		
46	Availability of construction documentation (B2.3)  F:..... V:..... T:.....	Item		
47	Interests of agents (B2.4)  F:..... V:..... T:.....	Item		
48	Priced documents (B2.5)  F:..... V:..... T:.....	Item		
49	Tender submission (B2.6)  F:..... V:..... T:.....	Item		
50	Defined works area (B3.1)  F:..... V:..... T:.....	Item		
<b>Carried to Collection</b>			R	
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

	<b><u>The site (B3)</u></b>			
51	Geotechnical investigation (B3.2)  F:..... V:..... T:.....	Item		
52	Inspection of the site (B3.3)  F:..... V:..... T:.....  Existing premises occupied (B3.4)  F:..... V:..... T:.....  Previous work - dimensional accuracy (B3.5)  F:..... V:..... T:.....  Previous work - defects (B3.6)  F:..... V:..... T:.....	Item		
53	Services - known (B3.7)  F:..... V:..... T:.....	Item		
54	Services - unknown (B3.8)  F:..... V:..... T:.....	Item		
	<b>Carried to Collection</b>		R	
	Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL			

55	Protection of trees etc (B3.9)  F:..... V:..... T:.....	Item		
56	Articles of value (B3.10)  F:..... V:..... T:.....	Item		
<b><u>Management of contract (B4)</u></b>				
57	Inspection of adjoining properties etc (B3.11)  F:..... V:..... T:.....	Item		
58	Management of the works (B4.1)  F:..... V:..... T:.....	Item		
59	Programme for the works (B4.2)  F:..... V:..... T:.....	Item		
60	Progress meetings (B4.3)  F:..... V:..... T:.....	Item		
61	Technical meetings (B4.4)  F:..... V:..... T:.....	Item		
62	Labour and Plant records (B4.5)  F:..... V:..... T:.....	Item		
<b>Carried to Collection</b>				R
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

<b><u>Samples, Shop Drawings and Manufacturer's Instructions (B5)</u></b>				
63	Samples of materials (B5.1)  F:..... V:..... T:.....	Item		
64	Workmanship samples (B5.2)  F:..... V:..... T:.....	Item		
65	Shop drawings (B5.3)  F:..... V:..... T:.....	Item		
66	Compliance with Manufacturer's Instructions (B5.4)  F:..... V:..... T:.....	Item		
<b><u>Temporary works and plant (B6)</u></b>				
67	Deposits and fees (B6.1)  F:..... V:..... T:.....	Item		
68	Enclosure of the works (B6.2)  F:..... V:..... T:.....	Item		
69	Advertising (B6.3)  F:..... V:..... T:.....	Item		
<b>Carried to Collection</b>			R	
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

70	Plant, equipment, sheds and offices (B6.4)  F:..... V:..... T:.....	Item		
71	Main notice board (B6.5)  F:..... V:..... T:.....	Item		
72	Subcontractors' notice board (B6.6)  F:..... V:..... T:.....  <b><u>Temporary services (B7)</u></b>	N/A		
73	Location (B7.1)  F:..... V:..... T:.....	Item		
74	Water (B7.2)  <div style="text-align: right;"><b>Option [A] shall apply</b></div> F:..... V:..... T:.....	Item		
75	Electricity (B7.3)  <div style="text-align: right;"><b>Option [A] shall apply</b></div> F:..... V:..... T:.....	Item		
76	Telecommunication facilities (B7.4)  F:..... V:..... T:.....	Item		
77	Ablution facilities (B7.5)  <div style="text-align: right;"><b>Option [A] shall apply</b></div> F:..... V:..... T:.....	Item		
	<b>Carried to Collection</b>			R
	Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL			

	<b><u>Prime cost amounts (B8)</u></b>			
78	Responsibility for prime cost amounts (B8.1)  F:..... V:..... T:.....	Item		
	<b><u>Attendance on N/S Subcontractors (B9)</u></b>			
79	General attendance (B9.1)  F:..... V:..... T:.....	Item		
80	Special attendance (B9.2)  F:..... V:..... T:.....	Item		
81	Commissioning - Fuel, water and power (B9.3)  F:..... V:..... T:.....	Item		
	<b><u>Financial aspects (B10)</u></b>			
	Statutory taxes, duties and levies (B10.1)  F:..... V:..... T:.....	Item		
82	Payment of preliminaries (B10.2) <div style="text-align: right;"><b>Option [B] shall apply</b></div>			
	F:..... V:..... T:.....	Item		
83	Adjustment of preliminaries (B10.3) <div style="text-align: right;"><b>Option [A] shall apply</b></div>			
	F:..... V:..... T:.....	Item		
	<b>Carried to Collection</b>			
	Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL		R	

84	Payment certificate cash flow (B10.4)  F:..... V:..... T:.....  <b><u>General (B11)</u></b>	Item		
85	Protection of works (B11.1)  F:..... V:..... T:.....	Item		
86	Protection/isolation of existing/sectionally occupied works (B11.2)  F:..... V:..... T:.....	Item		
87	Security of the Works (B11.3)  F:..... V:..... T:.....	Item		
88	Notice before covering work (B11.4)  F:..... V:..... T:.....	Item		
89	Disturbance (B11.5)  F:..... V:..... T:.....	Item		
90	Environmental Disturbance (B11.6)  F:..... V:..... T:.....	Item		
91	Works cleaning and clearing (B11.7)  F:..... V:..... T:.....	Item		
<b>Carried to Collection</b>				R
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL				

92	Vermin (B11.8) F:..... V:..... T:.....	Item		
93	Overhand work (B11.9) F:..... V:..... T:.....	Item		
94	Instruction manuals and guarantees (B11.10) F:..... V:..... T:.....	Item		
95	As built information (B11.11) F:..... V:..... T:.....	Item		
96	Tenant Installations (B11.12) F:..... V:..... T:.....	Item		
<b><u>Schedule of variables (B12)</u></b>				
97	Pre-tender information (B12.1) F:..... V:..... T:.....	Item		
	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional:			No
	12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete			No
	12.1.3 Interest of agents (B2.4)			
	12.1.4 Defined works area (B3.1)			
<b>Carried to Collection</b>				
Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL			R	

12.1.5 Geotechnical investigation (B3.2)  
 N/A

12.1.6 Existing premises occupied (B3.4)

12.1.7 Previous work - dimensional accuracy (B3.4)

12.1.8 Previous work - defects (B3.5)

12.1.9 Services - known (B3.7)

12.1.10 Protection of trees (B3.9)  
 All trees should be protected and only on instruction of the Principal Agent may any trees be removed

12.1.12 Enclosure of the works (B6.2)

12.1.11 Inspection of adjoining properties (B3.11)

12.1.13 Offices (B6.4.3)  
 An office for the clerck of works should be provided

12.1.14 Main notice board (B6.5)

12.1.15 Subcontractors notice board (B6.6)  
 A notice board is required

12.1.16 Water (B7.2)  
 Alternative Selected: A

YES

No

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

- 12.1.17 Electricity (B7.3)  
Alternative selected: A
- 12.1.18 Telecommunications (B7.4)
- 12.1.19 Ablution facilities (B7.5)  
Alternative selected: A
- 12.1.20 Protection of existing/sectionally occupied works (B11.2)
- 12.1.21 Special attendance (B9.2)  
  
Subcontractor (1) details:  
  
N/A
- 12.1.22 Protection of the works (B11.1)  
  
N/A
- 12.1.23 Disturbance (B11.5)  
  
N/A
- 12.1.24 Environmental Disturbance (B11.6)  
  
N/A

**Post tender information (B12.2)**

- 12.2.1 Payment of preliminaries  
Alternative selected: B
- 12.2.2 Adjustment of preliminaries  
Alternative selected: A
- 12.2.3 Additional agreed preliminaries items  
N/A

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

**SECTION C: SPECIFIC PRELIMINARIES**

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

98 **Site instructions**

Instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor

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

Item

99 **Black economic empowerment and training**

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

Item

100 **Proprietary branded products**

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

Item

101 **Testing of flat roof waterproofing for watertightness**

Flat 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 watertightness of the waterproofing and before any further construction work is carried out above the waterproofing

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

Item

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

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

102	<p>Contract instructions</p> <p>F:..... V:..... T:.....</p> <p>Contract instructions issued on site are to be recorded in triplicate in a contract instruction book which is to be supplied and maintained on site by the contractor</p>	Item		
103	<p>Labour record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and descriptions of tradesmen and labourers employed by him and all subcontractors on the works each day of that week</p>	Item		
104	<p>Plant record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools used on the works each day of that week</p>	Item		
105	<p>Guarantees</p> <p>F:..... V:..... T:.....</p>	Item		
<p><b>Carried to Collection</b></p>			R	
<p>Section No. 1                  PRELIMINARIES AND GENERAL                  Bill No. 1                  PRELIMINARIES AND GENERAL</p>				

Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement

106

Overtime

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

Item

Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer

107

Co-operation of contractor for cost management

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

Item

**Carried to Collection**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

108	<p>It is specifically agreed that the contractor accepts the obligation of assisting the professional consultants in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The quantity surveyor undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedures to be implemented and the contractor will attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures in regard to all subcontractors</p> <p>Occupational Health and Safety Specification</p> <p>F:..... V:.....              T:.....</p> <p>Any Principal Contractor entering into a contract with The Developer must achieve an acceptable level of Occupational Health and Safety performance. Refer to "Project Specification" and "Safety, Health and Environmental Evaluation Questionnaire" The contractor to comply with all provisions of the above and to be enforced on all selected and or other sub-contractors, as no claim afterwards will be entertained</p> <p><b><u>SUMMARY OF CATEGORIES</u></b></p> <p>Category : Fixed R.....</p> <p>Category : Value R.....</p> <p>Category : Time R.....</p>	Item		
	<b>Carried to Collection</b>			R
	Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL			

Section No. 1

PRELIMINARIES AND GENERAL

Bill No. 1

PRELIMINARIES AND GENERAL

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19

**Carried Forward**

R

Section No. 1  
 PRELIMINARIES AND GENERAL  
 Bill No. 1  
 PRELIMINARIES AND GENERAL

Section No. 1

PRELIMINARIES AND GENERAL

Bill No. 1

PRELIMINARIES AND GENERAL

**COLLECTION**

**Page  
No**

**Amount**

**Brought Forward**

R

Total Brought Forward from Page No.

20

21

22

23

24

25

26

27

**Carried to Final Summary**

R

Section No. 1

PRELIMINARIES AND GENERAL

Bill No. 1

PRELIMINARIES AND GENERAL

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.2</u></b></p> <p><b><u>BILL NO.1</u></b></p> <p><b><u>DEMOLITIONS</u></b></p> <p><b><u>REMOVAL OF EXISTING WORK</u></b></p> <p><u>Note:</u></p> <p>Unless otherwise stated, all materials from the alterations and demolitions will belong to the builder.</p> <p>The builder should allow for the removal of all debris from site and keep the site clean at all times</p> <p><b><u>DEMOLITIONS, ETC.</u></b></p>			
1	<p>Break down and demolish existing building approximate size 4400 x 3300 x 2500mm high, incl. cutting the foundation wall, strip footings, windows, roof covering, etc, removal of surface beds, backfilling, cart away etc. of all rubble and leaving no visible sign of the building (Pit Toilet)</p>	No	2	
2	<p>Break down and demolish existing building approximate size 4700 x 3100 x 2500mm high, incl. cutting the foundation wall, strip footings, windows, roof covering, etc, removal of surface beds, backfilling, cart away etc. of all rubble and leaving no visible sign of the building (Waterborne Toilet)</p>	No	2	
	<b>Carried to Final Summary</b>			R
	<p>Section No. 2            DEMOLITIONS            Bill No. 1            DEMOLITION</p>			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	83	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	83	
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	8	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
4	Soft rock	m3	1	
5	Hard rock	m3	0,4	
	<u>Extra over all excavations for carting away:</u>			
6	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	4	
	<u>Risk of collapse of excavations</u>			
7	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	24	
	<b>Carried to Collection</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 1 EARTHWORKS			

			Item		
	<u>Keeping excavations free of water.</u>				
8	Keeping excavations free of water other than subterranean water				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
9	Under floors, steps, pavings, etc.	m3		5	
10	Backfilling to trenches, holes, etc.	m3		4	
	<u>Compaction of surfaces</u>				
11	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 <b>AASHTO</b> density	m2		17	
	<u>Prescribed density tests on filling</u>				
12	Modified AASHTO Density tests	No		4	
	<b><u>SOIL POISONING</u></b>				
	<u>Soil insecticide</u>				
13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2		17	
14	<b>To</b> bottoms and sides of trenches, etc.	m2		35	
	<b>Carried to Collection</b>				
	Section No. 3 SM2 - WATERBORNE Bill No. 1 EARTHWORKS				R

Section No. 3

SM2 - WATERBORNE

Bill No. 1

EARTHWORKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

31

32

**Amount**

**Carried Forward to Summary of Section No. 3**

R

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 1  
 EARTHWORKS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>UNREINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
1	Strip footings	m3	3	
2	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	16	
	<b><u>REINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
3	Surface beds cast in panels on waterproofing.	m3	2	
	<b><u>CONCRETE SUNDRIES</u></b>			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
4	Suface beds, slabs, etc.	m2	17	
	<b><u>TEST CUBES</u></b>			
5	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	3	
	<b>Carried to Collection</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 2 CONCRETE,FORMWORK AND REINFORCEMENT			

**REINFORCEMENT**

Mesh Reinforcement (measure nett)

6	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	17	
---	---	----	----	--

**Carried to Collection**

R

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 2  
 CONCRETE, FORMWORK AND REINFORCEMENT

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 2  
 CONCRETE, FORMWORK AND REINFORCEMENT  
**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

34

35

**Amount**

**Carried Forward to Summary of Section No. 3**

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 2  
 CONCRETE, FORMWORK AND REINFORCEMENT

R

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.3</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>BRICKWORK</u></b></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixéal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><b><u>Pointing</u></b></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 3            SM2 - WATERBORNE            Bill No. 3            MASONRY</p>			

**SAMPLES**

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

**BRICKWORK**

**FOUNDATIONS**

Brickwork of NFP bricks in class II mortar

1	One brick walls	m2	14	
---	-----------------	----	----	--

**FACE BRICKWORK**

Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

2	Extra over brickwork for face brickwork in foundation	m2	7	
---	---	----	---	--

**SUPERSTRUCTURE**

Brickwork of NFP bricks in class II mortar

**FACE BRICKWORK**

Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

3	One brickwork for face brick walls pointed both sides	m2	49	
---	---	----	----	--

4	Half brickwork for face brick walls pointed both sides	m2	9	
---	--	----	---	--

5	Extra over brickwork for face brickwork in beamfilling	m2	2	
---	--	----	---	--

**Carried to Collection**

R

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 3  
 MASONRY

	<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
6	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	1		
7	Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	4		
8	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	6		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<u>Brick reinforcement</u>				
9	75mm Wide reinforcement built in horizontally	m	30		
10	150mm Wide reinforcement built in horizontally	m	257		
	<u>Turning pieces</u>				
11	220mm Wide turning piece to lintel etc	m	4		
	<u>Galvanised wire ties etc</u>				
12	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No	10		
	<u>Ventillation bricks</u>				
13	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	6		
	<b>Carried to Collection</b>				
	Section No. 3 SM2 - WATERBORNE Bill No. 3 MASONRY				R

Section No. 3

SM2 - WATERBORNE

Bill No. 3

MASONRY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

37

38

39

**Carried Forward to Summary of Section No. 3**

R

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 3  
 MASONRY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m	16	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	17	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u>			
3	Around steel windows and door frames.	m	22	
	<b>Carried Forward to Summary of Section No. 3</b>			R
	Section No. 3			
	SM2 - WATERBORNE			
	Bill No. 4			
	WATERPROOFING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.5</u></b>			
	<b><u>ROOF COVERINGS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u></b>			
1	Roof covering with pitch not exceeding 25 degrees	m2	21	
	<u>Sundries</u>			
2	12" Thermal resistance sisalition laid on purlins	m2	21	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>			
3	125 x 100mm Seamless eaves gutters with beaded front edge	m	5	
4	Extra over eaves gutter for stopped end	No	2	
5	Extra over eaves gutter for angle	No	2	
6	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2	
7	100mm Diameter rainwater pipes	m	5	
	<b>Carried to Collection</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 5 ROOF COVERINGS			

8	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	2		
9	Extra over rainwater pipe for shoe	No	2		

**Carried to Collection**

R

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 5  
 ROOF COVERINGS

Section No. 3

SM2 - WATERBORNE

Bill No. 5

ROOF COVERINGS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

42

43

**Amount**

**Carried Forward to Summary of Section No. 3**

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 5  
 ROOF COVERINGS

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.6</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ROOFS, ETC.</u></b>			
	<u>Sawn softwood</u>			
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	22	
2	76 x 38mm Wall plates	m	9	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	21	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	15	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	10	
6	Hurricane clips	No	30	
	<b><u>EAVES, VERGES, ETC.</u></b>			
	<u>Pressed fibre-cement</u>			
7	15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	19	
	<b><u>DOORS, ETC.</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY			

	<u>Wrought meranti doors hung to steel frames</u>			
8	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	1	
9	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	2	
	<b>Carried to Collection</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY			

Section No. 3

SM2 - WATERBORNE

Bill No. 6

CARPENTRY AND JOINERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

45

46

**Amount**

**Carried Forward to Summary of Section No. 3**

Section No. 3

SM2 - WATERBORNE

Bill No. 6

CARPENTRY AND JOINERY

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.7</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CATCHES, CABIN, HOOKS, ETC</u></b>			
	<u>Approved</u>			
1	150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	2	
	<b><u>LOCKS</u></b>			
	<u>Approved</u>			
2	"Code 630" padlock	No	1	
3	Three lever mortice lockset	No	1	
4	Indicator lockset	No	2	
	<b><u>DOORSTOPS</u></b>			
	<u>Approved</u>			
5	38mm Diameter rubber door stop plugged	No	4	
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>			
	<u>"Union" or similar approved</u>			
6	75 x 150mm Natural anodised aluminium plate with male symbol	No	1	
	<b><u>BATHROOM FITTINGS</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 7 IRONMONGERY			

	<b><u>"Kimberley-Clark" or Simlilar</u></b>				
7	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	2		
	<b><u>"Franke" or Equally approved</u></b>				
8	"Franke" CHRH41 stainless steel mirror	No	2		
<b>Carried to Collection</b>					R
Section No. 3 SM2 - WATERBORNE Bill No. 7 IRONMONGERY					

Section No. 3

SM2 - WATERBORNE

Bill No. 7

IRONMONGERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

48

49

**Amount**

**Carried Forward to Summary of Section No. 3**

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 7  
 IRONMONGERY

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.8</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<u>1,2mm Single rebated frames suitable for half brick walls</u>			
1	Frame for door 813 x 2032mm high	No	2	
	<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No	1	
	<b><u>STEEL WINDOWS, DOORS, ETC</u></b>			
3	Window type NE1, 533 x 654mm high including burglar bars	No	4	
4	Window type NE 7,1022 x 654mm high including burglar bars	No	2	
	<b><u>WELDED SCREENS, GATES, ETC</u></b>			
	<u>Steel gates and frames</u>			
5	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1	
	<b>Carried Forward to Summary of Section No. 3</b>			R
	Section No. 3			
	SM2 - WATERBORNE			
	Bill No. 8			
	METALWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CEMENT SCREEDS TO CONCRETE</u></b>			
	<u>Screeds to steel trowelled, on concrete:</u>			
1	30mm thick on floors	m2	17	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>Minimum two coats approved epoxy coat:</u>			
2	On screed	m2	17	
	<b>Carried Forward to Summary of Section No. 3</b>			R
	Section No. 3			
	SM2 - WATERBORNE			
	Bill No. 9			
	IN SITU FINISHES			

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO. 10</u></b></p> <p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>"Polycop" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><b><u>"Polylink" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 3            SM2 - WATERBORNE            Bill No. 10            PLUMBING AND DRAINAGE</p>			

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

**Concrete pipes:**

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

**Vitrified clay pipes:**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

**uPVC pipes and fittings:**

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings:**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

**Carried to Collection**

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

R

**Copper pipes:**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

**Fixing of pipes**

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

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Wire gratings**

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

**Septic tanks**

Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions

**Carried to Collection**

R

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

**Exposed concrete surfaces**

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

**Excavations**

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

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

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

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

**Flush pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Carried to Collection**

R

Section No. 3  
 SM2 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

	<b><u>Waste unions</u></b>			
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings			
	<b><u>Steel sectional water tanks</u></b>			
	Tanks shall comply with SABS CKS 114			
	<b><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></b>			
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described			
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc			
	<b><u>SOIL DRAINAGE</u></b>			
	<u>uPVC pipes</u>			
1	110mm Pipes laid in and including trenches not exceeding 1m deep	m	6	
	<u>Extra over uPVC pipes for fittings</u>			
2	110mm Bend	No	4	
3	110mm Junction	No	4	
4	110 x 50mm Reducing junction	No	4	
5	110mm Double junction	No	4	
	<u>Pre-cast concrete gulleys</u>			
6	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	1	
	<b>Carried to Collection</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE			

	<u>Sundries</u>				
7	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	4		
8	100mm Cast iron "ABC" cleaning eye	No	1		
9	Testing drainage pipe system		Item		
	<b><u>SANITARY FITTINGS</u></b>				
	<u>"Vaal"</u>				
10	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	2		
11	White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	2		
12	Wall hung urinal size 305 x 340 x 540mm complete with all accessories	No	2		
	<b><u>WASTE UNIONS ETC</u></b>				
	<u>"Cobra Watertech"</u>				
13	38mm "Cobra 316" unslotted waste and plug with chain	No	2		
	<b><u>TRAPS ETC</u></b>				
	<u>"Cobra Watertech"</u>				
14	"Cobra Ref. 365/40" CP bottle trap	No	2		
	<b><u>TAPS, VALVES, ETC</u></b>				
	<u>"Cobra Watertech"</u>				
15	15mm CP connectors	No	2		
16	25mm 1001/125RB fullway gate valve	No	2		
	<b>Carried to Collection</b>				
	Section No. 3				
	SM2 - WATERBORNE				
	Bill No. 10				
	PLUMBING AND DRAINAGE				

R

17	"Cobra ref. 206-20" bib tap	No	2		
18	Ref. 232-10 Angle regulating valve with connection pipes etc.	No	2		
19	"Cobra Ref. 111-15" pillar tap	No	2		
20	"Cobra Ref. 232/350" Angle regulating valve	No	2		
<b><u>SANITARY PLUMBING</u></b>					
<u>uPVC pipes</u>					
21	110mm Pipes laid in and including trenches not exceeding 1m deep	m	10		
<u>Extra over uPVC pipes for fittings</u>					
22	110mm Junction	No	2		
23	110mm Reducing junction	No	2		
24	110mm Pan connector	No	2		
25	110mm Double junction	No	2		
26	110mm "GI Two-way" vent valve	No	2		
<u>Sundries</u>					
27	Testing waste pipe system			Item	
<b><u>WATER SUPPLIES</u></b>					
<u>Class 0 copper pipes</u>					
28	15mm Pipes	m	30		
<u>Extra over class 0 copper pipes for capillary fittings</u>					
29	15mm Fittings	No	30		
<b>Carried to Collection</b>					R
Section No. 3 SM2 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE					

Section No. 3

SM2 - WATERBORNE

Bill No. 10

PLUMBING AND DRAINAGE

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

53

54

55

56

57

58

59

**Carried Forward to Summary of Section No. 3**

R

Section No. 3

SM2 - WATERBORNE

Bill No. 10

PLUMBING AND DRAINAGE

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO. 11</u></b></p> <p><b><u>GLAZING</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>GLAZING TO STEEL WITH PUTTY</u></b></p> <p><u>6.38mm Obscure safety glass</u></p>			
1	Panes not exceeding 0,1 m2	m2	3	
	<b>Carried Forward to Summary of Section No. 3</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 11 GLAZING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ON FIBRE-CEMENT</u></b>			
	<u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u>			
1	On fascias and barge boards	m2	2	
	<b><u>ON WOOD</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
2	On doors (Internal)	m2	7	
3	On doors (External)	m2	4	
	<b><u>ON METAL</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
4	On door frames	m2	3	
5	On gates (Measured over the full flat area of both sides)	m2	4	
	<u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u>			
6	On windows with burglar bars	m2	5	
	<b>Carried Forward to Summary of Section No. 3</b>			R
	Section No. 3 SM2 - WATERBORNE Bill No. 12 PAINTWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.13</u></b>			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	24	
	<u>15 MPa/20 mm concrete</u>			
2	Aprons cast in panels to falls	m3	2	
3	Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc.	m	24	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Aprons to falls	m2	24	
	<u>Smooth formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	24	
	<b>Carried Forward to Summary of Section No. 3</b>			R
	Section No. 3			
	SM2 - WATERBORNE			
	Bill No. 13			
	CONCRETE APRONS			

	Section No. 3			
	SM2 - WATERBORNE			
	<b><u>SECTION SUMMARY - SM2 - WATERBORNE</u></b>			
<b>Bill No</b>		<b>Page No</b>		<b>Amount</b>
1	EARTHWORKS	33		
2	CONCRETE, FORMWORK AND REINFORCEMENT	36		
3	MASONRY	40		
4	WATERPROOFING	41		
5	ROOF COVERINGS	44		
6	CARPENTRY AND JOINERY	47		
7	IRONMONGERY	50		
8	METALWORK	51		
9	IN SITU FINISHES	52		
10	PLUMBING AND DRAINAGE	60		
11	GLAZING	61		
12	PAINTWORK	62		
13	CONCRETE APRONS	63		
	<b>Carried to Final Summary</b>			R
	Section No. 3			
	SM2 - WATERBORNE			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	93	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	93	
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	12	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
4	Soft rock	m3	1	
5	Hard rock	m3	1	
	<u>Extra over all excavations for carting away:</u>			
6	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	6	
	<u>Risk of collapse of excavations</u>			
7	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	32	
	<b>Carried to Collection</b>			R
	Section No. 4 SFD3 - WATERBORNE Bill No. 1 EARTHWORKS			

	<u>Keeping excavations free of water.</u>			
8	Keeping excavations free of water other than subterranean water		Item	
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>			
9	Under floors, steps, pavings, etc.	m3	6	
10	Backfilling to trenches, holes, etc.	m3	5	
	<u>Compaction of surfaces</u>			
11	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 <b>AASHTO</b> density	m2	21	
	<u>Prescribed density tests on filling</u>			
12	Modified AASHTO Density tests	No	4	
	<b><u>SOIL POISONING</u></b>			
	<u>Soil insecticide</u>			
13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	21	
14	<b>To</b> bottoms and sides of trenches, etc.	m2	49	
	<b>Carried to Collection</b>			R
	Section No. 4 SFD3 - WATERBORNE Bill No. 1 EARTHWORKS			

Section No. 4

SFD3 - WATERBORNE

Bill No. 1

EARTHWORKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

65

66

**Amount**

**Carried Forward to Summary of Section No. 4**

R

Section No. 4

SFD3 - WATERBORNE

Bill No. 1

EARTHWORKS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>UNREINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
1	Strip footings	m3	4	
2	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	26	
	<b><u>REINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
3	Surface beds cast in panels on waterproofing.	m3	2	
	<b><u>TEST CUBES</u></b>			
4	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4	
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
5	Suface beds, slabs, etc.	m2	21	
	<b><u>REINFORCEMENT</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 4 SFD3 - WATERBORNE Bill No. 2 CONCRETE,FORMWORK AND REINFORCEMENT			

<u>Mesh Reinforcement (measure nett)</u>					
6	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	21		
<b>Carried to Collection</b>					
Section No. 4 SFD3 - WATERBORNE Bill No. 2 CONCRETE, FORMWORK AND REINFORCEMENT					R

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 2  
 CONCRETE,FORMWORK AND REINFORCEMENT  
**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

68

69

**Amount**

**Carried Forward to Summary of Section No. 4**

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 2  
 CONCRETE,FORMWORK AND REINFORCEMENT

R

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.4</u></b></p> <p><b><u>BILL NO.3</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>BRICKWORK</u></b></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixéal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><b><u>Pointing</u></b></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 4            SFD3 - WATERBORNE            Bill No. 3            MASONRY</p>			

	<b><u>SAMPLES</u></b>				
	<p>Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>FOUNDATIONS</u></b></p> <p><u>Brickwork of NFP bricks in class II mortar</u></p>				
1	One brick walls	m2	11		
	<p><b><u>FACE BRICKWORK</u></b></p> <p><u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u></p>				
2	Extra over brickwork for face brickwork in foundation	m2	6		
	<p><b><u>SUPERSTRUCTURE</u></b></p> <p><b><u>FACE BRICKWORK</u></b></p> <p><u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u></p>				
3	One brickwork for face brick walls pointed both sides	m2	68		
4	Half brickwork for face brick walls pointed both sides	m2	10		
5	Extra over brickwork for face brickwork in beamfilling	m2	2		
6	Fair raking and cutting	m	8		
	<b>Carried to Collection</b>			R	
	<p>Section No. 4            SFD3 - WATERBORNE            Bill No. 3            MASONRY</p>				

	<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
7	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	10		
8	Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at an angle	m	4		
9	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	6		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<u>Brick reinforcement</u>				
10	75mm Wide reinforcement built in horizontally	m	30		
11	150mm Wide reinforcement built in horizontally	m	300		
	<u>Turning pieces</u>				
12	220mm Wide turning piece to lintel etc	m	6		
	<u>Galvanised wire ties etc</u>				
13	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No	12		
	<u>Ventillation bricks</u>				
14	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	6		
	<b>Carried to Collection</b>				
	Section No. 4 SFD3 - WATERBORNE Bill No. 3 MASONRY				R

Section No. 4

SFD3 - WATERBORNE

Bill No. 3

MASONRY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

71

72

73

**Carried Forward to Summary of Section No. 4**

R

Section No. 4

SFD3 - WATERBORNE

Bill No. 3

MASONRY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m	23	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	21	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u>			
3	Around steel windows and door frames.	m	14	
	<b>Carried Forward to Summary of Section No. 4</b>			R
	Section No. 4			
	SFD3 - WATERBORNE			
	Bill No. 4			
	WATERPROOFING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.5</u></b>			
	<b><u>ROOF COVERINGS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u></b>			
1	Roof covering with pitch not exceeding 25 degrees	m2	27	
	<u>Sundries</u>			
2	12" Thermal resistance sisalition laid on purlins	m2	27	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>			
3	125 x 100mm Seamless eaves gutters with beaded front edge	m	6	
4	Extra over eaves gutter for stopped end	No	2	
5	Extra over eaves gutter for angle	No	2	
6	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2	
7	100mm Diameter rainwater pipes	m	5	
	<b>Carried to Collection</b>			R
	Section No. 4 SFD3 - WATERBORNE Bill No. 5 ROOF COVERINGS			

8	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	2		
9	Extra over rainwater pipe for shoe	No	2		

**Carried to Collection**

R

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 5  
 ROOF COVERINGS

Section No. 4

SFD3 - WATERBORNE

Bill No. 5

ROOF COVERINGS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

76

77

**Amount**

**Carried Forward to Summary of Section No. 4**

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 5  
 ROOF COVERINGS

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.6</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ROOFS, ETC.</u></b>			
	<u>Sawn softwood</u>			
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	26	
2	76 x 38mm Wall plates	m	11	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	42	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	33	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	12	
6	Hurricane clips	No	40	
	<b><u>EAVES, VERGES, ETC.</u></b>			
	<u>Pressed fibre-cement</u>			
7	15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	21	
	<b><u>DOORS, ETC.</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 4 SFD3 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY			

<u>Wrought meranti doors hung to steel frames</u>					
8	44mm Framed batten door 914 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	1		
9	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	1		
10	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	3		
<b>Carried to Collection</b>					R
Section No. 4 SFD3 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY					

Section No. 4

SFD3 - WATERBORNE

Bill No. 6

CARPENTRY AND JOINERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

79

80

**Amount**

**Carried Forward to Summary of Section No. 4**

R

Section No. 4

SFD3 - WATERBORNE

Bill No. 6

CARPENTRY AND JOINERY

Item No			Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>				
	<b><u>BILL NO.7</u></b>				
	<b><u>IRONMONGERY</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	For preambles see "Specifications of materials and methods to be used - PW 371"				
	<b><u>CATCHES, CABIN, HOOKS, ETC</u></b>				
	<u>Approved</u>				
1	150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	4		
	<b><u>LOCKS</u></b>				
	<u>Approved</u>				
2	"Code 630" padlock	No	2		
3	Three lever mortice lockset	No	2		
4	Indicator lockset	No	3		
5	Disabled toilet handle facility indicator bolt set for sliding or hinged door lock	No	1		
	<b><u>DOOR CLOSERS</u></b>				
	<u>Approved</u>				
6	DORMA TS90 cam action slide channel door closer	No	1		
	<b><u>DOORSTOPS</u></b>				
	<b>Carried to Collection</b>				R
	Section No. 4 SFD3 - WATERBORNE Bill No. 7 IRONMONGERY				

	<u>Approved</u>				
7	38mm Diameter rubber door stop plugged	No	5		
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>				
	<u>"Union" or similar approved</u>				
8	75 x 150mm Natural anodised aluminium plate with disable, male or female symbol	No	2		
	<b><u>BATHROOM FITTINGS</u></b>				
	<b><u>"Kimberley-Clark" or Simlilar</u></b>				
9	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	4		
	<b><u>"Franke" or Equally approved</u></b>				
10	"Franke" CHRH41 stainless steel mirror	No	2		
	<u>Sundries</u>				
11	Female she-bin	No	3		
	<u>"Vaal Paragon"</u>				
12	32mm Type 9 back grab rail 800mm long plugged	No	1		
13	32mm Type 8 side grab rail 900mm girth plugged	No	1		
	<b>Carried to Collection</b>				R
	Section No. 4				
	SFD3 - WATERBORNE				
	Bill No. 7				
	IRONMONGERY				

Section No. 4

SFD3 - WATERBORNE

Bill No. 7

IRONMONGERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

82

83

**Amount**

**Carried Forward to Summary of Section No. 4**

R

Section No. 4

SFD3 - WATERBORNE

Bill No. 7

IRONMONGERY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.8</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<u>1,2mm Single rebated frames suitable for half brick walls</u>			
1	Frame for door 813 x 2032mm high	No	3	
	<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No	1	
	<b><u>PRESSED STEEL COMBINATION DOORS AND FRAMES</u></b>			
	<u>"Nty" doors</u>			
3	"Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame	No	2	
	<b>Carried to Collection</b>			R
	Section No. 4 SFD3 - WATERBORNE Bill No. 8 METALWORK			

<b><u>STEEL WINDOWS, DOORS, ETC</u></b>					
4	Window type NE1, 533 x 654mm high including burglar bars	No	4		
5	Window type NE 7,1022 x 654mm high including burglar bars	No	2		
<b><u>WELDED SCREENS, GATES, ETC</u></b>					
<u>Steel gates and frames</u>					
6	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1		
<b>Carried to Collection</b>					R
Section No. 4 SFD3 - WATERBORNE Bill No. 8 METALWORK					

Section No. 4

SFD3 - WATERBORNE

Bill No. 8

METALWORK

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

85

86

**Amount**

**Carried Forward to Summary of Section No. 4**

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 8  
 METALWORK

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CEMENT SCREEDS TO CONCRETE</u></b>			
	<u>Screeds to steel trowelled, on concrete:</u>			
1	30mm thick on floors	m2	21	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>Minimum two coats approved epoxy coat:</u>			
2	On screed	m2	21	
	<b>Carried Forward to Summary of Section No. 4</b>			R
	Section No. 4			
	SFD3 - WATERBORNE			
	Bill No. 9			
	IN SITU FINISHES			

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.4</u></b></p> <p><b><u>BILL NO. 10</u></b></p> <p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>"Polycop" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><b><u>"Polylink" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 4            SFD3 - WATERBORNE            Bill No. 10            PLUMBING AND DRAINAGE</p>			

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

**Concrete pipes:**

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

**Vitrified clay pipes:**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

**uPVC pipes and fittings:**

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings:**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

**Carried to Collection**

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

R

**Copper pipes:**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

**Fixing of pipes**

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

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Wire gratings**

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

**Septic tanks**

Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions

**Carried to Collection**

R

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

**Exposed concrete surfaces**

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

**Excavations**

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

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

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

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

**Flush pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Carried to Collection**

R

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

	<b><u>Waste unions</u></b>				
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings				
	<b><u>Steel sectional water tanks</u></b>				
	Tanks shall comply with SABS CKS 114				
	<b><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></b>				
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described				
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	<b><u>SOIL DRAINAGE</u></b>				
	<u>uPVC pipes</u>				
1	110mm Pipes laid in and including trenches not exceeding 1m deep	m		60	
	<u>Extra over uPVC pipes for fittings</u>				
2	110mm Bend	No		3	
3	110mm Junction	No		3	
4	110 x 50mm Reducing junction	No		3	
5	110mm Double junction	No		3	
	<u>Pre-cast concrete gulleys</u>				
6	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No		2	
	<b>Carried to Collection</b>				R
	Section No. 4 SFD3 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE				

	<u>Sundries</u>			
7	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	3	
8	100mm Cast iron "ABC" cleaning eye	No	2	
9	Testing drainage pipe system		Item	
<b><u>SANITARY FITTINGS</u></b>				
<u>"Vaal"</u>				
10	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	2	
11	White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	3	
12	Vaal Sanitaryware vitreous china "Protea Paraplegic" 90° outlet pan (code 750200) and matching 9 litre cistern (code 7116LP) complete with lid, fitments, and purpose-made C.P. side-flush lever (left or right) or a back inlet exposed flushvalve. Bottom inlet water supply must be on same side as flush lever. The suite is designed to flush effectively on 6 litres with Buxton Statite seat ( code 85152100)	No	1	
<b><u>WASTE UNIONS ETC</u></b>				
<u>"Cobra Watertech"</u>				
13	38mm "Cobra 316" unslotted waste and plug with chain	No	2	
<b><u>TRAPS ETC</u></b>				
<u>"Cobra Watertech"</u>				
14	"Cobra Ref. 365/40" CP bottle trap	No	2	
<b><u>TAPS, VALVES, ETC</u></b>				
<b>Carried to Collection</b>				R
Section No. 4 SFD3 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE				

	<u>"Cobra Watertech"</u>				
15	15mm CP connectors	No	5		
16	25mm 1001/125RB fullway gate valve	No	5		
17	"Cobra ref. 206-20" bib tap	No	1		
18	Ref. 232-10 Angle regulating valve with connection pipes etc.	No	5		
19	"Cobra Ref. 111-15" pillar tap	No	2		
20	"Cobra Ref. 232/350" Angle regulating valve	No	5		
21	COB-503-21B/N Elbow action. With 1/4 turn ceramic disc headpart, flanged backnut and blue indice for cold water application. 1/2BSP male iron connection end.	No	1		
	<b><u>SANITARY PLUMBING</u></b>				
	<u>uPVC pipes</u>				
22	110mm Pipes laid in and including trenches not exceeding 1m deep	m	25		
	<u>Extra over uPVC pipes for fittings</u>				
23	110mm Junction	No	3		
24	110mm Reducing junction	No	3		
25	110mm Pan connector	No	3		
26	110mm Double junction	No	3		
27	110mm "GI Two-way" vent valve	No	3		
	<u>Sundries</u>				
28	Testing waste pipe system		Item		
	<b>Carried to Collection</b>				R
	Section No. 4				
	SFD3 - WATERBORNE				
	Bill No. 10				
	PLUMBING AND DRAINAGE				

**WATER SUPPLIES**

Class 0 copper pipes

29	15mm Pipes	m	30	
----	------------	---	----	--

Extra over class 0 copper pipes for capillary fittings

30	15mm Fittings	No	10	
----	---------------	----	----	--

**Carried to Collection**

R

Section No. 4  
 SFD3 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

Section No. 4

SFD3 - WATERBORNE

Bill No. 10

PLUMBING AND DRAINAGE

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

89

90

91

92

93

94

95

96

**Carried Forward to Summary of Section No. 4**

R

Section No. 4

SFD3 - WATERBORNE

Bill No. 10

PLUMBING AND DRAINAGE

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.4</u></b></p> <p><b><u>BILL NO. 11</u></b></p> <p><b><u>GLAZING</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>GLAZING TO STEEL WITH PUTTY</u></b></p> <p><u>6.38mm Obscure safety glass</u></p>			
1	Panes not exceeding 0,1 m2	m2	3	
	<b>Carried Forward to Summary of Section No. 4</b>			R
	Section No. 4 SFD3 - WATERBORNE Bill No. 11 GLAZING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ON FIBRE-CEMENT</u></b>			
	<u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u>			
1	On fascias and barge boards	m2	5	
	<b><u>ON WOOD</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
2	On doors (Internal)	m2	9	
3	On doors (External)	m2	7	
	<b><u>ON METAL</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
4	On door frames	m2	2	
5	On gates (Measured over the full flat area of both sides)	m2	7	
	<u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u>			
6	On windows with burglar bars	m2	3	
	<b>Carried Forward to Summary of Section No. 4</b>			R
	Section No. 4			
	SFD3 - WATERBORNE			
	Bill No. 12			
	PAINTWORK			

Item No		Quantity	Rate	Amount
	<b><u>BILL NO.13</u></b>			
	<b><u>SECTION NO.4</u></b>			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	27	
	<u>15 MPa/20 mm concrete</u>			
2	Aprons cast in panels to falls	m3	3	
3	Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc.	m	27	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Aprons to falls	m2	27	
	<u>Smooth formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	27	
	<b>Carried Forward to Summary of Section No. 4</b>			
	Section No. 4 SFD3 - WATERBORNE Bill No. 13 CONCRETE APRONS			R

	Section No. 4			
Bill No		Page No		Amount
	SFD3 - WATERBORNE			
	<b><u>SECTION SUMMARY - SFD3 - WATERBORNE</u></b>			
1	EARTHWORKS	67		
2	CONCRETE, FORMWORK AND REINFORCEMENT	70		
3	MASONRY	74		
4	WATERPROOFING	75		
5	ROOF COVERINGS	78		
6	CARPENTRY AND JOINERY	81		
7	IRONMONGERY	84		
8	METALWORK	87		
9	IN SITU FINISHES	88		
10	PLUMBING AND DRAINAGE	97		
11	GLAZING	98		
12	PAINTWORK	99		
13	CONCRETE APRONS	100		
	<b>Carried to Final Summary</b>			R
	Section No. 4			
	SFD3 - WATERBORNE			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	128	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	128	
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	16	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
4	Soft rock	m3	2	
5	Hard rock	m3	1	
	<u>Extra over all excavations for carting away:</u>			
6	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	8	
	<u>Risk of collapse of excavations</u>			
7	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	44	
	<b>Carried to Collection</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 1 EARTHWORKS			

			Item		
	<u>Keeping excavations free of water.</u>				
8	Keeping excavations free of water other than subterranean water				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
9	Under floors, steps, pavings, etc.	m3		11	
10	Backfilling to trenches, holes, etc.	m3		7	
	<u>Compaction of surfaces</u>				
11	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 <b>AASHTO</b> density	m2		37	
	<u>Prescribed density tests on filling</u>				
12	Modified AASHTO Density tests	No		4	
	<b><u>SOIL POISONING</u></b>				
	<u>Soil insecticide</u>				
13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2		37	
14	<b>To</b> bottoms and sides of trenches, etc.	m2		66	
	<b>Carried to Collection</b>				
	Section No. 5 GRD7 - WATERBORNE Bill No. 1 EARTHWORKS				R

Section No. 5

GRD7 - WATERBORNE

Bill No. 1

EARTHWORKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

102

103

**Amount**

**Carried Forward to Summary of Section No. 5**

R

Section No. 5

GRD7 - WATERBORNE

Bill No. 1

EARTHWORKS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>UNREINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
1	Strip footings	m3	5	
2	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	31	
	<b><u>REINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
3	Surface beds cast in panels on waterproofing.	m3	4	
	<b><u>CONCRETE SUNDRIES</u></b>			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
4	Suface beds, slabs, etc.	m2	37	
	<b><u>TEST CUBES</u></b>			
5	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	3	
	<b>Carried to Collection</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 2 CONCRETE,FORMWORK AND REINFORCEMENT			

**REINFORCEMENT**

Mesh Reinforcement (measure nett)

6	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	37	
---	---	----	----	--

**Carried to Collection**

R

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 2  
 CONCRETE, FORMWORK AND REINFORCEMENT

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 2  
 CONCRETE,FORMWORK AND REINFORCEMENT  
**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

105

106

**Amount**

**Carried Forward to Summary of Section No. 5**

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 2  
 CONCRETE,FORMWORK AND REINFORCEMENT

R

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.5</u></b></p> <p><b><u>BILL NO.3</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>BRICKWORK</u></b></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixéal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><b><u>Pointing</u></b></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 5            GRD7 - WATERBORNE            Bill No. 3            MASONRY</p>			

	<b><u>SAMPLES</u></b>			
	<p>Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><b><u>FOUNDATIONS</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><u>Brickwork of NFP bricks in class II mortar</u></p>			
1	One brick walls	m2	26	
	<p><b><u>FACE BRICKWORK</u></b></p> <p><u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u></p>			
2	Extra over brickwork for face brickwork in foundation	m2	13	
	<p><b><u>SUPERSTRUCTURE</u></b></p> <p><b><u>FACE BRICKWORK</u></b></p> <p><u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u></p>			
3	One brickwork for face brick walls pointed both sides	m2	80	
4	Half brickwork for face brick walls pointed both sides	m2	32	
5	Extra over brickwork for face brickwork in beamfilling	m2	4	
	<p><u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u></p>			
6	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	1	
	<b>Carried to Collection</b>			R
	<p>Section No. 5                  GRD7 - WATERBORNE                  Bill No. 3                  MASONRY</p>			

7	Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	8	
8	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	12	
<b><u>BRICKWORK SUNDRIES</u></b>				
<u>Brick reinforcement</u>				
9	75mm Wide reinforcement built in horizontally	m	158	
10	150mm Wide reinforcement built in horizontally	m	257	
<u>Turning pieces</u>				
11	220mm Wide turning piece to lintel etc	m	4	
<u>Galvanised wire ties etc</u>				
12	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No	22	
<u>Ventillation bricks</u>				
13	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	12	
<b>Carried to Collection</b>				R
Section No. 5 GRD7 - WATERBORNE Bill No. 3 MASONRY				

Section No. 5

GRD7 - WATERBORNE

Bill No. 3

MASONRY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

108

109

110

**Carried Forward to Summary of Section No. 5**

R

Section No. 5

GRD7 - WATERBORNE

Bill No. 3

MASONRY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m	31	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	37	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u>			
3	Around steel windows and door frames.	m	44	
	<b>Carried Forward to Summary of Section No. 5</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 4 WATERPROOFING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.5</u></b>			
	<b><u>ROOF COVERINGS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u></b>			
1	Roof covering with pitch not exceeding 25 degrees	m2	46	
	<u>Sundries</u>			
2	12" Thermal resistance sisalition laid on purlins	m2	46	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>			
3	125 x 100mm Seamless eaves gutters with beaded front edge	m	10	
4	Extra over eaves gutter for stopped end	No	2	
5	Extra over eaves gutter for angle	No	2	
6	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2	
7	100mm Diameter rainwater pipes	m	5	
	<b>Carried to Collection</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 5 ROOF COVERINGS			

8	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	2		
9	Extra over rainwater pipe for shoe	No	2		

**Carried to Collection**

R

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 5  
 ROOF COVERINGS

Section No. 5

GRD7 - WATERBORNE

Bill No. 5

ROOF COVERINGS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

113

114

**Amount**

**Carried Forward to Summary of Section No. 5**

R

Section No. 5

GRD7 - WATERBORNE

Bill No. 5

ROOF COVERINGS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.6</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ROOFS, ETC.</u></b>			
	<u>Sawn softwood</u>			
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	47	
2	76 x 38mm Wall plates	m	19	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	43	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	15	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	22	
6	Hurricane clips	No	90	
	<b><u>EAVES, VERGES, ETC.</u></b>			
	<u>Pressed fibre-cement</u>			
7	15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	29	
	<b><u>DOORS, ETC.</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY			

	<u>Wrought meranti doors hung to steel frames</u>			
8	44mm Framed batten door 914 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	2	
9	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	1	
10	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	7	
	<b>Carried to Collection</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY			

Section No. 5  GRD7 - WATERBORNE  Bill No. 6  CARPENTRY AND JOINERY  <b><u>COLLECTION</u></b>   Total Brought Forward from Page No.	<b>Page No</b>		<b>Amount</b>
	116		
	117		
<b>Carried Forward to Summary of Section No. 5</b>			
Section No. 5 GRD7 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY			

R

Item No			Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>				
	<b><u>BILL NO.7</u></b>				
	<b><u>IRONMONGERY</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	For preambles see "Specifications of materials and methods to be used - PW 371"				
	<b><u>CATCHES, CABIN, HOOKS, ETC</u></b>				
	<u>Approved</u>				
1	150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	4		
	<b><u>LOCKS</u></b>				
	<u>Approved</u>				
2	"Code 630" padlock	No	2		
3	Three lever mortice lockset	No	1		
4	Indicator lockset	No	7		
5	Disabled toilet handle facility indicator bolt set for sliding or hinged door lock	No	1		
	<b><u>DOOR CLOSERS</u></b>				
	<u>Approved</u>				
6	DORMA TS90 cam action slide channel door closer	No	1		
	<b><u>DOORSTOPS</u></b>				
	<b>Carried to Collection</b>				
					R
	Section No. 5 GRD7 - WATERBORNE Bill No. 7 IRONMONGERY				

	<u>Approved</u>				
7	38mm Diameter rubber door stop plugged	No	11		
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>				
	<u>"Union" or similar approved</u>				
8	75 x 150mm Natural anodised aluminium plate with male or female symbol	No	2		
	<b><u>BATHROOM FITTINGS</u></b>				
	<b><u>"Kimberley-Clark" or Simlilar</u></b>				
9	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	8		
	<b><u>"Franke" or Equally approved</u></b>				
10	"Franke" CHRH41 stainless steel mirror	No	5		
	<u>"Vaal Paragon"</u>				
11	32mm Type 9 back grab rail 800mm long plugged	No	1		
12	32mm Type 8 side grab rail 900mm girth plugged	No	1		
	<b>Carried to Collection</b>				
	Section No. 5 GRD7 - WATERBORNE Bill No. 7 IRONMONGERY				R



Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.8</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<u>1,2mm Single rebated frames suitable for half brick walls</u>			
1	Frame for door 813 x 2032mm high	No	7	
	<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No	1	
	<b><u>PRESSED STEEL COMBINATION DOORS AND FRAMES</u></b>			
	<u>"Nty" doors</u>			
3	"Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame	No	2	
	<b>Carried to Collection</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 8 METALWORK			

<b><u>STEEL WINDOWS, DOORS, ETC</u></b>					
4	Window type NE1, 533 x 654mm high including burglar bars	No	8		
5	Window type NE 7,1022 x 654mm high including burglar bars	No	4		
<b><u>WELDED SCREENS, GATES, ETC</u></b>					
<u>Steel gates and frames</u>					
6	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1		
<b>Carried to Collection</b>					R
Section No. 5 GRD7 - WATERBORNE Bill No. 8 METALWORK					

Section No. 5

GRD7 - WATERBORNE

Bill No. 8

METALWORK

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

122

123

**Amount**

**Carried Forward to Summary of Section No. 5**

R

Section No. 5

GRD7 - WATERBORNE

Bill No. 8

METALWORK

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CEMENT SCREEDS TO CONCRETE</u></b>			
	<u>Screeds to steel trowelled, on concrete:</u>			
1	30mm thick on floors	m2	37	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>Minimum two coats approved epoxy coat:</u>			
2	On screed	m2	37	
	<b>Carried Forward to Summary of Section No. 5</b>			R
	Section No. 5			
	GRD7 - WATERBORNE			
	Bill No. 9			
	IN SITU FINISHES			

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.5</u></b></p> <p><b><u>BILL NO. 10</u></b></p> <p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>"Polycop" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><b><u>"Polylink" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p>			
	<b>Carried to Collection</b>			
	<p>Section No. 5            GRD7 - WATERBORNE            Bill No. 10            PLUMBING AND DRAINAGE</p>		R	

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

**Concrete pipes:**

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

**Vitrified clay pipes:**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

**uPVC pipes and fittings:**

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings:**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

**Carried to Collection**

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

R

**Copper pipes:**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

**Fixing of pipes**

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

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Wire gratings**

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

**Septic tanks**

Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions

**Carried to Collection**

R

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

**Exposed concrete surfaces**

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

**Excavations**

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

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

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

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

**Flush pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Carried to Collection**

R

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

	<b><u>Waste unions</u></b>				
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings				
	<b><u>Steel sectional water tanks</u></b>				
	Tanks shall comply with SABS CKS 114				
	<b><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></b>				
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described				
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	<b><u>SOIL DRAINAGE</u></b>				
	<u>uPVC pipes</u>				
1	110mm Pipes laid in and including trenches not exceeding 1m deep	m		6	
	<u>Extra over uPVC pipes for fittings</u>				
2	110mm Bend	No		8	
3	110mm Junction	No		8	
4	110 x 50mm Reducing junction	No		8	
5	110mm Double junction	No		8	
	<u>Pre-cast concrete gulleys</u>				
6	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No		3	
	<b>Carried to Collection</b>				R
	Section No. 5 GRD7 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE				

	<u>Sundries</u>			
7	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	4	
8	100mm Cast iron "ABC" cleaning eye	No	1	
9	Testing drainage pipe system		Item	
	<b><u>SANITARY FITTINGS</u></b>			
	<u>"Vaal"</u>			
10	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	5	
11	Vaal Sanitaryware vitreous china "Protea Paraplegic" 90° outlet pan (code 750200) and matching 9 litre cistern (code 7116LP) complete with lid, fitments, and purpose-made C.P. side-flush lever (left or right) or a back inlet exposed flushvalve. Bottom inlet water supply must be on same side as flush lever. The suite is designed to flush effectively on 6 litres with Buxton Statite seat ( code 85152100)	No	2	
	<u>"Betta or equally approved"</u>			
12	Junior cistern, pan and seat (white) product ID 606938	No	7	
	<b><u>WASTE UNIONS ETC</u></b>			
	<u>"Cobra Watertech"</u>			
13	38mm "Cobra 316" unslotted waste and plug with chain	No	5	
	<b><u>TRAPS ETC</u></b>			
	<u>"Cobra Watertech"</u>			
14	"Cobra Ref. 365/40" CP bottle trap	No	5	
	<b><u>TAPS, VALVES, ETC</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE			

	<u>"Cobra Watertech"</u>				
15	15mm CP connectors	No	5		
16	25mm 1001/125RB fullway gate valve	No	13		
17	"Cobra ref. 206-20" bib tap	No	2		
18	Ref. 232-10 Angle regulating valve with connection pipes etc.	No	15		
19	"Cobra Ref. 111-15" pillar tap	No	2		
20	"Cobra Ref. 232/350" Angle regulating valve	No	13		
21	COB-503-21B/N Elbow action. With 1/4 turn ceramic disc headpart, flanged backnut and blue indice for cold water application. 1/2BSP male iron connection end.	No	1		
	<b><u>SANITARY PLUMBING</u></b>				
	<u>uPVC pipes</u>				
22	110mm Pipes laid in and including trenches not exceeding 1m deep	m	10		
	<u>Extra over uPVC pipes for fittings</u>				
23	110mm Junction	No	5		
24	110mm Reducing junction	No	5		
25	110mm Pan connector	No	8		
26	110mm Double junction	No	5		
27	110mm "GI Two-way" vent valve	No	5		
	<u>Sundries</u>				
28	Testing waste pipe system		Item		
	<b>Carried to Collection</b>				R
	Section No. 5 GRD7 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE				

**WATER SUPPLIES**

Class 0 copper pipes

29	15mm Pipes	m	30	
----	------------	---	----	--

Extra over class 0 copper pipes for capillary fittings

30	15mm Fittings	No	30	
----	---------------	----	----	--

**Carried to Collection**

R

Section No. 5  
 GRD7 - WATERBORNE  
 Bill No. 10  
 PLUMBING AND DRAINAGE

Section No. 5

GRD7 - WATERBORNE

Bill No. 10

PLUMBING AND DRAINAGE

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

126

127

128

129

130

131

132

133

**Carried Forward to Summary of Section No. 5**

R

Section No. 5

GRD7 - WATERBORNE

Bill No. 10

PLUMBING AND DRAINAGE

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.5</u></b></p> <p><b><u>BILL NO. 11</u></b></p> <p><b><u>GLAZING</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>GLAZING TO STEEL WITH PUTTY</u></b></p> <p><u>6.38mm Obscure safety glass</u></p>			
1	Panes not exceeding 0,1 m2	m2	5	
	<b>Carried Forward to Summary of Section No. 5</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 11 GLAZING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ON FIBRE-CEMENT</u></b>			
	<u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u>			
1	On fascias and barge boards	m2	7	
	<b><u>ON WOOD</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
2	On doors (Internal)	m2	21	
3	On doors (External)	m2	7	
	<b><u>ON METAL</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
4	On door frames	m2	10	
5	On gates (Measured over the full flat area of both sides)	m2	7	
	<u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u>			
6	On windows with burglar bars	m2	11	
	<b>Carried Forward to Summary of Section No. 5</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 12 PAINTWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.13</u></b>			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	35	
	<u>15 MPa/20 mm concrete</u>			
2	Aprons cast in panels to falls	m3	4	
3	Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc.	m	35	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Aprons to falls	m2	35	
	<u>Smooth formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	35	
	<b>Carried Forward to Summary of Section No. 5</b>			R
	Section No. 5 GRD7 - WATERBORNE Bill No. 13 CONCRETE APRONS			

	Section No. 5 GRD7 - WATERBORNE			
Bill No	<u>SECTION SUMMARY - GRD7 - WATERBORNE</u>	Page No	Amount	
1	EARTHWORKS	104		
2	CONCRETE, FORMWORK AND REINFORCEMENT	107		
3	MASONRY	111		
4	WATERPROOFING	112		
5	ROOF COVERINGS	115		
6	CARPENTRY AND JOINERY	118		
7	IRONMONGERY	121		
8	METALWORK	124		
9	IN SITU FINISHES	125		
10	PLUMBING AND DRAINAGE	134		
11	GLAZING	135		
12	PAINTWORK	136		
13	CONCRETE APRONS	137		
	<b>Carried to Final Summary</b>		R	
	Section No. 5 GRD7 - WATERBORNE			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	150	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	150	
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	12	
4	Pit	m3	28	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
5	Soft rock	m3	4	
6	Hard rock	m3	2	
	<u>Extra over all excavations for carting away:</u>			
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	34	
	<b>Carried to Collection</b>			R
	Section No. 6 M8 - ENVIRO LOO Bill No. 1 EARTHWORKS			

	<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	64		
	<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water		Item		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	8		
11	Backfilling to trenches, holes, etc.	m3	5		
	<u>Compaction of surfaces</u>				
12	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 <b>AASHTO</b> density	m2	40		
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod <b>AASHTO</b> density	m2	20		
	<u>Prescribed density tests on filling</u>				
14	Modified AASHTO Density tests	No	4		
	<b><u>SOIL POISONING</u></b>				
	<u>Soil insecticide</u>				
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	60		
16	<b>To</b> bottoms and sides of trenches, etc.	m2	49		
	<b>Carried to Collection</b>				
	Section No. 6 M8 - ENVIRO LOO Bill No. 1 EARTHWORKS				R

Section No. 6

M8 - ENVIRO LOO

Bill No. 1

EARTHWORKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

139

140

**Amount**

**Carried Forward to Summary of Section No. 6**

R

Section No. 6  
 M8 - ENVIRO LOO  
 Bill No. 1  
 EARTHWORKS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>UNREINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
1	Strip footings	m3	4	
2	Ditto, but surface bed in pit	m3	3	
3	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	9	
	<b><u>REINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
4	Slabs	m3	2	
5	Surface beds cast in panels on waterproofing.	m3	4	
	<b><u>CONCRETE SUNDRIES</u></b>			
	<b><u>TEST CUBES</u></b>			
6	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4	
	<b>Carried to Collection</b>			R
	Section No. 6 M8 - ENVIRO LOO Bill No. 2 CONCRETE, FORMWORK AND REINFORCEMENT			

	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
7	Surface beds, slabs, etc.	m2	58		
	<b><u>FORMWORK</u></b>				
	<u>Rough formwork to sides:</u>				
8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	12		
	<u>Permanent formwork to soffits:</u>				
9	Slabs propped up not exceeding 1.5m high	m2	20		
10	Leave or form 500mm diameter opening in top of floor slab	No	8		
	<b><u>REINFORCEMENT</u></b>				
	<u>Mesh Reinforcement (measure nett)</u>				
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	46		
	<b>Carried to Collection</b>				R
	Section No. 6				
	M8 - ENVIRO LOO				
	Bill No. 2				
	CONCRETE, FORMWORK AND REINFORCEMENT				

Section No. 6

M8 - ENVIRO LOO

Bill No. 2

CONCRETE, FORMWORK AND REINFORCEMENT

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

142

143

**Amount**

**Carried Forward to Summary of Section No. 6**

R

Section No. 6

M8 - ENVIRO LOO

Bill No. 2

CONCRETE, FORMWORK AND REINFORCEMENT

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.6</u></b></p> <p><b><u>BILL NO.3</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>BRICKWORK</u></b></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixéal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><b><u>Pointing</u></b></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 6            M8 - ENVIRO LOO            Bill No. 3            MASONRY</p>			

**SAMPLES**

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

**FOUNDATIONS**

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

1	One brick walls	m2	11
2	One brick walls in pit	m2	42
3	4Half brick corbelling in pit	m	6

**FACE BRICKWORK**

Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

4	Extra over brickwork for face brickwork in foundation	m2	6
---	---	----	---

**SUPERSTRUCTURE**

**FACE BRICKWORK**

Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

5	One brickwork for face brick walls pointed both sides	m2	95
6	Half brickwork for face brick walls pointed both sides	m2	36
7	Extra over brickwork for face brickwork in beamfilling	m2	5
8	Fair raking and cutting	m	11

**Carried to Collection**

R

Section No. 6  
 M8 - ENVIRO LOO  
 Bill No. 3  
 MASONRY

	<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	9		
10	Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	8		
11	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	8		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<u>Brick reinforcement</u>				
12	75mm Wide reinforcement built in horizontally	m	120		
13	150mm Wide reinforcement built in horizontally	m	599		
	<u>Turning pieces</u>				
14	220mm Wide turning piece to lintel etc	m	10		
	<u>Galvanised wire ties etc</u>				
15	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No	26		
	<u>Prestressed fabricated lintels</u>				
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	8		
	<u>Ventillation bricks</u>				
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	15		
	<b>Carried to Collection</b>				
	Section No. 6 M8 - ENVIRO LOO Bill No. 3 MASONRY				R

Section No. 6

M8 - ENVIRO LOO

Bill No. 3

MASONRY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

145

146

147

**Amount**

**Carried Forward to Summary of Section No. 6**

R

Section No. 6  
 M8 - ENVIRO LOO  
 Bill No. 3  
 MASONRY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m	32	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	40	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u>			
3	Around steel windows and door frames.	m	39	
	<b>Carried Forward to Summary of Section No. 6</b>			R
	Section No. 6			
	M8 - ENVIRO LOO			
	Bill No. 4			
	WATERPROOFING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.5</u></b>			
	<b><u>ROOF COVERINGS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u></b>			
1	Roof covering with pitch not exceeding 25 degrees	m2	58	
	<u>Sundries</u>			
2	12" Thermal resistance sisalition laid on purlins	m2	58	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>			
3	125 x 100mm Seamless eaves gutters with beaded front edge	m	13	
4	Extra over eaves gutter for stopped end	No	2	
5	Extra over eaves gutter for angle	No	2	
6	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2	
7	100mm Diameter rainwater pipes	m	5	
	<b>Carried to Collection</b>			R
	Section No. 6 M8 - ENVIRO LOO Bill No. 5 ROOF COVERINGS			

8	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	2		
9	Extra over rainwater pipe for shoe	No	2		

**Carried to Collection**

R

Section No. 6  
 M8 - ENVIRO LOO  
 Bill No. 5  
 ROOF COVERINGS

Section No. 6

M8 - ENVIRO LOO

Bill No. 5

ROOF COVERINGS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

150

151

**Amount**

**Carried Forward to Summary of Section No. 6**

Section No. 6  
 M8 - ENVIRO LOO  
 Bill No. 5  
 ROOF COVERINGS

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.6</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ROOFS, ETC.</u></b>			
	<u>Sawn softwood</u>			
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	57	
2	76 x 38mm Wall plates	m	24	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	51	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	40	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	26	
6	Hurricane clips	No	60	
	<b><u>EAVES, VERGES, ETC.</u></b>			
	<u>Pressed fibre-cement</u>			
7	15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	34	
	<b><u>DOORS, ETC.</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 6			
	M8 - ENVIRO LOO			
	Bill No. 6			
	CARPENTRY AND JOINERY			

	<u>Wrought meranti doors hung to steel frames</u>			
8	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	1	
9	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	8	
	<b>Carried to Collection</b>			R
	Section No. 6 M8 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY			

Section No. 6

M8 - ENVIRO LOO

Bill No. 6

CARPENTRY AND JOINERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

153

154

**Amount**

**Carried Forward to Summary of Section No. 6**

R

Section No. 6

M8 - ENVIRO LOO

Bill No. 6

CARPENTRY AND JOINERY

Item No			Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>				
	<b><u>BILL NO.7</u></b>				
	<b><u>IRONMONGERY</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	For preambles see "Specifications of materials and methods to be used - PW 371"				
	<b><u>CATCHES, CABIN, HOOKS, ETC</u></b>				
	<u>Approved</u>				
1	150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	2		
	<b><u>LOCKS</u></b>				
	<u>Approved</u>				
2	"Code 630" padlock	No	2		
3	Three lever mortice lockset	No	1		
4	Indicator lockset	No	8		
	<b><u>DOORSTOPS</u></b>				
	<u>Approved</u>				
5	38mm Diameter rubber door stop plugged	No	9		
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>				
	<u>"Union" or similar approved</u>				
6	75 x 150mm Natural anodised aluminium plate with male or female symbol	No	1		
	<b><u>BATHROOM FITTINGS</u></b>				
	<b>Carried to Collection</b>				R
	Section No. 6 M8 - ENVIRO LOO Bill No. 7 IRONMONGERY				

	<b><u>"Kimberley-Clark" or Simlilar</u></b>			
7	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	8	
	<b><u>"Franke" or Equally approved</u></b>			
8	"Franke" CHRH41 stainless steel mirror	No	5	
	<b>Carried to Collection</b>			R
Section No. 6 M8 - ENVIRO LOO Bill No. 7 IRONMONGERY				

Section No. 6

M8 - ENVIRO LOO

Bill No. 7

IRONMONGERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

156

157

**Amount**

**Carried Forward to Summary of Section No. 6**

R

Section No. 6  
 M8 - ENVIRO LOO  
 Bill No. 7  
 IRONMONGERY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.8</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<u>1,2mm Single rebated frames suitable for half brick walls</u>			
1	Frame for door 813 x 2032mm high	No	8	
	<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No	1	
	<b><u>STEEL WINDOWS, DOORS, ETC</u></b>			
3	Window type NE1, 533 x 654mm high including burglar bars	No	11	
4	Window type NE 7,1022 x 654mm high including burglar bars	No	4	
	<b><u>WELDED SCREENS, GATES, ETC</u></b>			
	<u>Steel gates and frames</u>			
5	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1	
	<b>Carried Forward to Summary of Section No. 6</b>			R
	Section No. 6			
	M8 - ENVIRO LOO			
	Bill No. 8			
	METALWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CEMENT SCREEDS TO CONCRETE</u></b>			
	<u>Screeds to steel trowelled, on concrete:</u>			
1	30mm thick on floors	m2	46	
	<b><u>INTERNAL PLASTER</u></b>			
	<u>Cement plaster on brickwork or blockwork</u>			
2	On pits walls	m2	69	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>Minimum two coats approved epoxy coat:</u>			
3	On screed	m2	46	
4	On internal textured plaster walls and floors in pit	m2	84	
	<b>Carried Forward to Summary of Section No. 6</b>			
	Section No. 6			
	M8 - ENVIRO LOO			
	Bill No. 9			
	IN SITU FINISHES			
			R	

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ENVIRO-LOO TOILET SYSTEMS</u></b>			
1	Supply and installation of complete Enviroo loo System 1040 industrial STD CER/ABS-1 (CODE FG-1040 STDCA/A)	No	8	
2	Budgetary allowance to be recovered by Employer for the supply of complete Enviroo-loo System : Urinal 4 pans (ABS) (CODE FG - 862B)	No	2	
3	Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	4	
	<b><u>SUPERVISION OF INSTALLATION OF "ENVIRO LOO"</u></b>			
	<u>The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of "enviro loo":</u>			
4	Two site visits to be made by the "Enviro loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed corretly at which time a Certificate of compliance should be issued between the Department of Public Works Limpopo and Enviro Loo Options Limpopo. ( CONTRACTOR SHOULD NOT PRICE FOR THIS ITEM		Item	2 000,00
5	Profit and attendance for above		Item	
	<b>Carried to Collection</b>			R
	Section No. 6 M8 - ENVIRO LOO Bill No. 10 PLUMBING AND DRAINAGE			

**TAPS, VALVES, ETC**

6 19mm Chromium plated push-button taps to wash troughs

No

4

**Carried to Collection**

R

Section No. 6  
 M8 - ENVIRO LOO  
 Bill No. 10  
 PLUMBING AND DRAINAGE

Section No. 6

M8 - ENVIRO LOO

Bill No. 10

PLUMBING AND DRAINAGE

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

161

162

**Amount**

**Carried Forward to Summary of Section No. 6**

Section No. 6

M8 - ENVIRO LOO

Bill No. 10

PLUMBING AND DRAINAGE

R

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.6</u></b></p> <p><b><u>BILL NO. 11</u></b></p> <p><b><u>GLAZING</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>GLAZING TO STEEL WITH PUTTY</u></b></p> <p><u>6.38mm Obscure safety glass</u></p>			
1	Panes not exceeding 0,1 m2	m2	6	
	<b>Carried Forward to Summary of Section No. 6</b>			R
	Section No. 6 M8 - ENVIRO LOO Bill No. 11 GLAZING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ON FIBRE-CEMENT</u></b>			
	<u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u>			
1	On fascias and barge boards	m2	12	
	<b><u>ON WOOD</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
2	On doors (Internal)	m2	12	
3	On doors (External)	m2	4	
	<b><u>ON METAL</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
4	On door frames	m2	5	
5	On gates (Measured over the full flat area of both sides)	m2	2	
	<u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u>			
6	On windows with burglar bars	m2	6	
	<b>Carried Forward to Summary of Section No. 6</b>			R
	Section No. 6			
	M8 - ENVIRO LOO			
	Bill No. 12			
	PAINTWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.13</u></b>			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	32	
	<u>15 MPa/20 mm concrete</u>			
2	Aprons cast in panels to falls	m3	3	
3	Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc.	m	32	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Aprons to falls	m2	32	
	<u>Smooth formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	32	
	<b>Carried Forward to Summary of Section No. 6</b>			R
	Section No. 6			
	M8 - ENVIRO LOO			
	Bill No. 13			
	CONCRETE APRONS			

Bill No		Page No		Amount
	Section No. 6			
	M8 - ENVIRO LOO			
	<b><u>SECTION SUMMARY - M8 - ENVIRO LOO</u></b>			
1	EARTHWORKS	141		
2	CONCRETE, FORMWORK AND REINFORCEMENT	144		
3	MASONRY	148		
4	WATERPROOFING	149		
5	ROOF COVERINGS	152		
6	CARPENTRY AND JOINERY	155		
7	IRONMONGERY	158		
8	METALWORK	159		
9	IN SITU FINISHES	160		
10	PLUMBING AND DRAINAGE	163		
11	GLAZING	164		
12	PAINTWORK	165		
13	CONCRETE APRONS	166		
	<b>Carried to Final Summary</b>			R
	Section No. 6			
	M8 - ENVIRO LOO			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	113	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	113	
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	8	
4	Pit	m3	27	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
5	Soft rock	m3	4	
6	Hard rock	m3	2	
	<u>Extra over all excavations for carting away:</u>			
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	32	
	<b>Carried to Collection</b>			R
	Section No. 7 F8 - ENVIRO LOO Bill No. 1 EARTHWORKS			

	<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	54		
	<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water		Item		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	8		
11	Backfilling to trenches, holes, etc.	m3	4		
	<u>Compaction of surfaces</u>				
12	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 <b>AASHTO</b> density	m2	28		
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod <b>AASHTO</b> density	m2	20		
	<u>Prescribed density tests on filling</u>				
14	Modified AASHTO Density tests	No	7		
	<b><u>SOIL POISONING</u></b>				
	<u>Soil insecticide</u>				
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	28		
16	<b>To</b> bottoms and sides of trenches, etc.	m2	86		
	<b>Carried to Collection</b>				
	Section No. 7 F8 - ENVIRO LOO Bill No. 1 EARTHWORKS				R

Section No. 7

F8 - ENVIRO LOO

Bill No. 1

EARTHWORKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

168

169

**Amount**

**Carried Forward to Summary of Section No. 7**

R

Section No. 7  
 F8 - ENVIRO LOO  
 Bill No. 1  
 EARTHWORKS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>UNREINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
1	Strip footings	m3	3	
2	Ditto, but surface bed in pit	m3	3	
3	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	25	
	<b><u>REINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
4	Slabs	m3	2	
5	Surface beds cast in panels on waterproofing.	m3	3	
	<b><u>TEST CUBES</u></b>			
6	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	7	
	<b>Carried to Collection</b>			R
	Section No. 7 F8 - ENVIRO LOO Bill No. 2 CONCRETE,FORMWORK AND REINFORCEMENT			

	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
7	Surface beds, slabs, etc.	m2	46		
	<b><u>FORMWORK</u></b>				
	<u>Rough formwork to sides:</u>				
8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	9		
	<u>Permanent formwork to soffits:</u>				
9	Slabs propped up not exceeding 1.5m high	m2	20		
10	Leave or form 500mm diameter opening in top of floor slab	No	8		
	<b><u>REINFORCEMENT</u></b>				
	<u>Mesh Reinforcement (measure nett)</u>				
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	46		
	<b>Carried to Collection</b>				R
	Section No. 7				
	F8 - ENVIRO LOO				
	Bill No. 2				
	CONCRETE, FORMWORK AND REINFORCEMENT				

Section No. 7

F8 - ENVIRO LOO

Bill No. 2

CONCRETE, FORMWORK AND REINFORCEMENT

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

171

172

**Amount**

**Carried Forward to Summary of Section No. 7**

Section No. 7

F8 - ENVIRO LOO

Bill No. 2

CONCRETE, FORMWORK AND REINFORCEMENT

R

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.7</u></b></p> <p><b><u>BILL NO.3</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>BRICKWORK</u></b></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixéal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 7            F8 - ENVIRO LOO            Bill No. 3            MASONRY</p>			

	<b><u>SAMPLES</u></b>			
	<p>Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><b><u>FOUNDATIONS</u></b></p> <p><b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b></p>			
1	One brick walls	m2	8	
2	One brick walls in pit	m2	53	
3	Half brick corbelling in pit	m	50	
	<b><u>FACE BRICKWORK</u></b>			
	<p>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</p>			
4	Extra over brickwork for face brickwork in foundation	m2	4	
	<b><u>SUPERSTRUCTURE</u></b>			
	<b><u>FACE BRICKWORK</u></b>			
	<p>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</p>			
5	One brickwork for face brick walls pointed both sides	m2	76	
6	Half brickwork for face brick walls pointed both sides	m2	32	
7	Extra over brickwork for face brickwork in beamfilling	m2	4	
8	Fair raking and cutting	m	6	
	<b>Carried to Collection</b>			R
	<p>Section No. 7                      F8 - ENVIRO LOO                      Bill No. 3                      MASONRY</p>			

	<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	8		
10	Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	7		
11	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	8		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<u>Brick reinforcement</u>				
12	75mm Wide reinforcement built in horizontally	m	105		
13	150mm Wide reinforcement built in horizontally	m	501		
	<u>Turning pieces</u>				
14	220mm Wide turning piece to lintel etc	m	7		
	<u>Galvanised wire ties etc</u>				
15	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No	20		
	<u>Prestressed fabricated lintels</u>				
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	9		
	<b><u>Ventillation bricks</u></b>				
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	11		
	<b>Carried to Collection</b>				
	Section No. 7 F8 - ENVIRO LOO Bill No. 3 MASONRY				R

Section No. 7

F8 - ENVIRO LOO

Bill No. 3

MASONRY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

174

175

176

**Amount**

**Carried Forward to Summary of Section No. 7**

R

Section No. 7  
 F8 - ENVIRO LOO  
 Bill No. 3  
 MASONRY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m	25	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	34	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<b><u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u></b>			
3	Around steel windows and door frames.	m	29	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7			
	F8 - ENVIRO LOO			
	Bill No. 4			
	WATERPROOFING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.5</u></b>			
	<b><u>ROOF COVERINGS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u></b>			
1	Roof covering with pitch not exceeding 25 degrees	m2	43	
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<u>Sundries</u>			
	<b><u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u></b>			
2	Insulation laid taut over purlins (at approximately 1 000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	43	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>			
3	125 x 100mm Seamless eaves gutters with beaded front edge	m	9	
4	Extra over eaves gutter for stopped end	No	2	
5	Extra over eaves gutter for angle	No	2	
6	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2	
	<b>Carried to Collection</b>			R
	Section No. 7 F8 - ENVIRO LOO Bill No. 5 ROOF COVERINGS			

7	100mm Diameter rainwater pipes	m	5		
8	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	2		
9	Extra over rainwater pipe for shoe	No	2		
<b>Carried to Collection</b>				R	
Section No. 7 F8 - ENVIRO LOO Bill No. 5 ROOF COVERINGS					

Section No. 7

F8 - ENVIRO LOO

Bill No. 5

ROOF COVERINGS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

179

180

**Amount**

**Carried Forward to Summary of Section No. 7**

R

Section No. 7

F8 - ENVIRO LOO

Bill No. 5

ROOF COVERINGS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.6</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ROOFS, ETC.</u></b>			
	<u>Sawn softwood</u>			
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	41	
2	76 x 38mm Wall plates	m	17	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	40	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	13	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	20	
6	Hurricane clips	No	72	
	<b><u>EAVES, VERGES, ETC.</u></b>			
	<u>Pressed fibre-cement</u>			
7	15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	19	
	<b><u>DOORS, ETC.</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 7 F8 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY			

	<u>Wrought meranti doors hung to steel frames</u>			
8	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	1	
9	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	8	
	<b>Carried to Collection</b>			R
	Section No. 7 F8 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY			

Section No. 7

F8 - ENVIRO LOO

Bill No. 6

CARPENTRY AND JOINERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

182

183

**Amount**

**Carried Forward to Summary of Section No. 7**

Section No. 7

F8 - ENVIRO LOO

Bill No. 6

CARPENTRY AND JOINERY

R

Item No			Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>				
	<b><u>BILL NO.7</u></b>				
	<b><u>IRONMONGERY</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	For preambles see "Specifications of materials and methods to be used - PW 371"				
	<b><u>CATCHES, CABIN, HOOKS, ETC</u></b>				
	<u>Approved</u>				
1	150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	1		
	<b><u>LOCKS</u></b>				
	<u>Approved</u>				
2	"Code 630" padlock	No	2		
3	Three lever mortice lockset	No	1		
4	Indicator lockset	No	8		
	<b><u>DOORSTOPS</u></b>				
	<u>Approved</u>				
5	38mm Diameter rubber door stop plugged	No	9		
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>				
	<u>"Union" or similar approved</u>				
6	75 x 150mm Natural anodised aluminium plate with female symbol	No	1		
	<b><u>BATHROOM FITTINGS</u></b>				
	<b>Carried to Collection</b>				R
	Section No. 7 F8 - ENVIRO LOO Bill No. 7 IRONMONGERY				

	<b><u>"Kimberley-Clark" or Simlilar</u></b>				
7	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	8		
	<b><u>"Franke" or Equally approved</u></b>				
8	"Franke" CHRH41 stainless steel mirror	No	5		
	<b><u>Sundries</u></b>				
9	Female she-bins	No	8		
<b>Carried to Collection</b>					R
Section No. 7 F8 - ENVIRO LOO Bill No. 7 IRONMONGERY					

Section No. 7

F8 - ENVIRO LOO

Bill No. 7

IRONMONGERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

185

186

**Amount**

**Carried Forward to Summary of Section No. 7**

R

Section No. 7  
 F8 - ENVIRO LOO  
 Bill No. 7  
 IRONMONGERY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.8</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<u>1,2mm Single rebated frames suitable for half brick walls</u>			
1	Frame for door 813 x 2032mm high	No	8	
	<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No	1	
	<b><u>STEEL WINDOWS, DOORS, ETC</u></b>			
	<b><u>Standard industrial windows with type "B1" burglar bars to opening sashes</u></b>			
3	Window type NE1, 533 x 654mm high	No	8	
4	Window type NE 7,1022 x 654mm high	No	3	
	<b><u>WELDED SCREENS, GATES, ETC</u></b>			
	<u>Steel gates and frames</u>			
5	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7			
	F8 - ENVIRO LOO			
	Bill No. 8			
	METALWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CEMENT SCREEDS TO CONCRETE</u></b>			
	<u>Screeds to steel trowelled, on concrete:</u>			
1	30mm thick on floors	m2	34	
	<b><u>INTERNAL PLASTER</u></b>			
	<u>Cement plaster on brickwork or blockwork</u>			
2	On pits walls	m2	69	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>Minimum two coats approved epoxy coat:</u>			
3	On screed	m2	34	
4	On internal textured plaster walls and floors in pit	m2	84	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7			
	F8 - ENVIRO LOO			
	Bill No. 9			
	IN SITU FINISHES			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.10</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ENVIRO-LOO TOILET SYSTEMS</u></b>			
1	Supply and installation of complete Enviroo loo System 1040 industrial STD CER/ABS-1 (CODE FG-1040 STDCA/A)	No	8	
	<b><u>SUPERVISION OF INSTALLATION OF "ENVIRO LOO"</u></b>			
	<u>The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of "enviro loo":</u>			
2	Two site visits to be made by the "Enviro loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed corretly at which time a Certificate of compliance should be issued between the Department of Public Works Limpopo and Enviro Loo Options Limpopo. ( CONTRACTOR SHOULD NOT PRICE FOR THIS ITEM		Item	2 000,00
3	Profit and attendance for above		Item	
	<b><u>TAPS, VALVES, ETC</u></b>			
4	19mm Chromium plated push-buton taps to wash troughs	No	4	
	<b><u>Sundires</u></b>			
5	Stainless-steel SHE-BIN protection cage plugged to walls	No	8	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7 F8 - ENVIRO LOO Bill No. 10 PLUMBING AND DRAINAGE			

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.7</u></b></p> <p><b><u>BILL NO. 11</u></b></p> <p><b><u>GLAZING</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>GLAZING TO STEEL WITH PUTTY</u></b></p> <p><u>6.38mm Obscure safety glass</u></p>			
1	Panes not exceeding 0,1 m2	m2	5	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7 F8 - ENVIRO LOO Bill No. 11 GLAZING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ON FIBRE-CEMENT</u></b>			
	<u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u>			
1	On fascias and barge boards	m2	6	
	<b><u>ON WOOD</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
2	On doors (Internal)	m2	24	
3	On doors (External)	m2	4	
	<b><u>ON METAL</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
4	On door frames	m2	5	
5	On gates (Measured over the full flat area of both sides)	m2	4	
	<u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u>			
6	On windows with burglar bars	m2	5	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7			
	F8 - ENVIRO LOO			
	Bill No. 12			
	PAINTWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.7</u></b>			
	<b><u>BILL NO.13</u></b>			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	36	
	<u>15 MPa/20 mm concrete</u>			
2	Aprons cast in panels to falls	m3	4	
3	Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc.	m	36	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Aprons to falls	m2	36	
	<u>Smooth formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	36	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7			
	F8 - ENVIRO LOO			
	Bill No. 13			
	CONCRETE APRONS			

	Section No. 7			
Bill No		Page No		Amount
	F8 - ENVIRO LOO			
	<b><u>SECTION SUMMARY - F8 - ENVIRO LOO</u></b>			
1	EARTHWORKS	170		
2	CONCRETE, FORMWORK AND REINFORCEMENT	173		
3	MASONRY	177		
4	WATERPROOFING	178		
5	ROOF COVERINGS	181		
6	CARPENTRY AND JOINERY	184		
7	IRONMONGERY	187		
8	METALWORK	188		
9	IN SITU FINISHES	189		
10	PLUMBING AND DRAINAGE	190		
11	GLAZING	191		
12	PAINTWORK	192		
13	CONCRETE APRONS	193		
	<b>Carried to Final Summary</b>			R
	Section No. 7			
	F8 - ENVIRO LOO			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	151	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	151	
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	11	
4	Pit	m3	31	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
5	Soft rock	m3	4	
6	Hard rock	m3	2	
	<u>Extra over all excavations for carting away:</u>			
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	36	
	<b>Carried to Collection</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 1 EARTHWORKS			

	<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	54		
	<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water		Item		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	8		
11	Backfilling to trenches, holes, etc.	m3	4		
	<u>Compaction of surfaces</u>				
12	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 <b>AASHTO</b> density	m2	28		
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod <b>AASHTO</b> density	m2	20		
	<u>Prescribed density tests on filling</u>				
14	Modified AASHTO Density tests	No	7		
	<b><u>SOIL POISONING</u></b>				
	<u>Soil insecticide</u>				
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	28		
16	<b>To</b> bottoms and sides of trenches, etc.	m2	86		
	<b>Carried to Collection</b>				R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 1 EARTHWORKS				

Section No. 8

FD7 - ENVIRO LOO

Bill No. 1

EARTHWORKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

195

196

**Amount**

**Carried Forward to Summary of Section No. 8**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 1  
 EARTHWORKS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>UNREINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
1	Strip footings	m3	3	
2	Ditto, but surface bed in pit	m3	3	
3	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	25	
	<b><u>REINFORCED CONCRETE, ETC</u></b>			
	<u>25Mpa/19mm Concrete</u>			
4	Slabs	m3	2	
5	Surface beds cast in panels on waterproofing.	m3	3	
	<b><u>TEST CUBES</u></b>			
6	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	7	
	<b>Carried to Collection</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 2 CONCRETE, FORMWORK AND REINFORCEMENT			

	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
7	Surface beds, slabs, etc.	m2	46		
	<b><u>FORMWORK</u></b>				
	<u>Rough formwork to sides:</u>				
8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	9		
	<u>Permanent formwork to soffits:</u>				
9	Slabs propped up not exceeding 1.5m high	m2	20		
10	Leave or form 500mm diameter opening in top of floor slab	No	8		
	<b><u>REINFORCEMENT</u></b>				
	<u>Mesh Reinforcement (measure nett)</u>				
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	46		
	<b>Carried to Collection</b>				R
	Section No. 8				
	FD7 - ENVIRO LOO				
	Bill No. 2				
	CONCRETE, FORMWORK AND REINFORCEMENT				

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 2  
 CONCRETE,FORMWORK AND REINFORCEMENT  
**COLLECTION**

Total Brought Forward from Page No.

**Page  
 No**

198

199

**Amount**

**Carried Forward to Summary of Section No. 8**

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 2  
 CONCRETE,FORMWORK AND REINFORCEMENT

R

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.8</u></b></p> <p><b><u>BILL NO.3</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>BRICKWORK</u></b></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixéal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 8            FD7 - ENVIRO LOO            Bill No. 3            MASONRY</p>			

**SAMPLES**

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

**FOUNDATIONS**

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

1	One brick walls	m2	8
2	One brick walls in pit	m2	53
3	Half brick corbelling in pit	m	50

**FACE BRICKWORK**

Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

4	Extra over brickwork for face brickwork in foundation	m2	4
---	---	----	---

**SUPERSTRUCTURE**

**FACE BRICKWORK**

Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

5	One brickwork for face brick walls pointed both sides	m2	76
6	Half brickwork for face brick walls pointed both sides	m2	32
7	Extra over brickwork for face brickwork in beamfilling	m2	4
8	Fair raking and cutting	m	6

**Carried to Collection**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 3  
 MASONRY

	<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	8		
10	Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	7		
11	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	8		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<u>Brick reinforcement</u>				
12	75mm Wide reinforcement built in horizontally	m	105		
13	150mm Wide reinforcement built in horizontally	m	501		
	<u>Turning pieces</u>				
14	220mm Wide turning piece to lintel etc	m	7		
	<u>Galvanised wire ties etc</u>				
15	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No	20		
	<u>Prestressed fabricated lintels</u>				
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10		
	<b><u>Ventillation bricks</u></b>				
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	11		
	<b>Carried to Collection</b>				
	Section No. 8 FD7 - ENVIRO LOO Bill No. 3 MASONRY				R

Section No. 8

FD7 - ENVIRO LOO

Bill No. 3

MASONRY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

201

202

203

**Carried Forward to Summary of Section No. 8**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 3  
 MASONRY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m	31	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	34	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<b><u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u></b>			
3	Around steel windows and door frames.	m	29	
	<b>Carried Forward to Summary of Section No. 8</b>			
	Section No. 8			
	FD7 - ENVIRO LOO			
	Bill No. 4			
	WATERPROOFING			
			R	

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.5</u></b>			
	<b><u>ROOF COVERINGS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u></b>			
1	Roof covering with pitch not exceeding 25 degrees	m2	47	
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<u>Sundries</u>			
	<b><u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u></b>			
2	Insulation laid taut over purlins (at approximately 1 000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	47	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>			
3	125 x 100mm Seamless eaves gutters with beaded front edge	m	10	
4	Extra over eaves gutter for stopped end	No	2	
5	Extra over eaves gutter for angle	No	2	
6	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2	
	<b>Carried to Collection</b>			R
	Section No. 8			
	FD7 - ENVIRO LOO			
	Bill No. 5			
	ROOF COVERINGS			

7	100mm Diameter rainwater pipes	m	5		
8	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	2		
9	Extra over rainwater pipe for shoe	No	2		

**Carried to Collection**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 5  
 ROOF COVERINGS

Section No. 8

FD7 - ENVIRO LOO

Bill No. 5

ROOF COVERINGS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

206

207

**Amount**

**Carried Forward to Summary of Section No. 8**

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 5  
 ROOF COVERINGS

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.6</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ROOFS, ETC.</u></b>			
	<u>Sawn softwood</u>			
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	46	
2	76 x 38mm Wall plates	m	19	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	50	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	13	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	26	
6	Hurricane clips	No	75	
	<b><u>EAVES, VERGES, ETC.</u></b>			
	<u>Pressed fibre-cement</u>			
7	15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	31	
	<b><u>DOORS, ETC.</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY			

<u>Wrought meranti doors hung to steel frames</u>					
8	44mm Framed batten door 914 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	2		
9	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	1		
10	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	7		
<b>Carried to Collection</b>					R
Section No. 8 FD7 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY					

Section No. 8

FD7 - ENVIRO LOO

Bill No. 6

CARPENTRY AND JOINERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

209

210

**Amount**

**Carried Forward to Summary of Section No. 8**

Section No. 8

FD7 - ENVIRO LOO

Bill No. 6

CARPENTRY AND JOINERY

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.7</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CATCHES, CABIN, HOOKS, ETC</u></b>			
	<u>Approved</u>			
1	150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	2	
	<b><u>LOCKS</u></b>			
	<u>Approved</u>			
2	"Code 630" padlock	No	2	
3	Three lever mortice lockset	No	2	
4	Indicator lockset	No	7	
5	Indicator lockset	No	8	
	<b><u>DOOR CLOSERS</u></b>			
	<u>Approved</u>			
6	DORMA TS90 cam action slide channel door closer	No	1	
	<b><u>DOORSTOPS</u></b>			
	<u>Approved</u>			
7	38mm Diameter rubber door stop plugged	No	9	
	<b>Carried to Collection</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 7 IRONMONGERY			

<b><u>LETTERS, NAMEPLATES, ETC.</u></b>					
	<u>"Union" or similar approved</u>				
8	75 x 150mm Natural anodised aluminium plate with female symbol	No	2		
<b><u>BATHROOM FITTINGS</u></b>					
	<b><u>"Kimberley-Clark" or Simlilar</u></b>				
9	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	8		
	<b><u>"Franke" or Equally approved</u></b>				
10	"Franke" CHRH41 stainless steel mirror	No	5		
	<u>Sundries</u>				
11	Female she-bins	No	8		
	<u>"Vaal Paragon"</u>				
12	32mm Type 9 back grab rail 800mm long plugged	No	1		
13	32mm Type 8 side grab rail 900mm girth plugged	No	1		
<b>Carried to Collection</b>					R
Section No. 8					
FD7 - ENVIRO LOO					
Bill No. 7					
IRONMONGERY					

Section No. 8

FD7 - ENVIRO LOO

Bill No. 7

IRONMONGERY

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

212

213

**Amount**

**Carried Forward to Summary of Section No. 8**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 7  
 IRONMONGERY

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.8</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<u>1,2mm Single rebated frames suitable for half brick walls</u>			
1	Frame for door 813 x 2032mm high	No	7	
	<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No	1	
	<b><u>PRESSED STEEL COMBINATION DOORS AND FRAMES</u></b>			
	<u>"Nty" doors</u>			
3	"Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame	No	1	
	<b><u>STEEL WINDOWS, DOORS, ETC</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 8 METALWORK			

<b><u>Standard industrial windows with type "B1" burglar bars to opening sashes</u></b>				
4	Window type NE1, 533 x 654mm high	No	7	
5	Window type NE 7,1022 x 654mm high	No	3	
<b><u>WELDED SCREENS, GATES, ETC</u></b>				
<u>Steel gates and frames</u>				
6	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1	
<b>Carried to Collection</b>				R
Section No. 8 FD7 - ENVIRO LOO Bill No. 8 METALWORK				

Section No. 8

FD7 - ENVIRO LOO

Bill No. 8

METALWORK

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

215

216

**Amount**

**Carried Forward to Summary of Section No. 8**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 8  
 METALWORK

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>CEMENT SCREEDS TO CONCRETE</u></b>			
	<u>Screeds to steel trowelled, on concrete:</u>			
1	30mm thick on floors	m2	38	
	<b><u>INTERNAL PLASTER</u></b>			
	<u>Cement plaster on brickwork or blockwork</u>			
2	On pits walls	m2	60	
	<b><u>FLOOR AND WALLS SEALERS</u></b>			
	<u>Minimum two coats approved epoxy coat:</u>			
3	On screed	m2	38	
4	On internal textured plaster walls and floors in pit	m2	73	
	<b>Carried Forward to Summary of Section No. 8</b>			R
	Section No. 8			
	FD7 - ENVIRO LOO			
	Bill No. 9			
	IN SITU FINISHES			

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.8</u></b></p> <p><b><u>BILL NO. 10</u></b></p> <p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>"Polycop" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><b><u>"Polylink" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p>			
	<b>Carried to Collection</b>			R
	<p>Section No. 8            FD7 - ENVIRO LOO            Bill No. 10            PLUMBING AND DRAINAGE</p>			

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

**Concrete pipes:**

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

**Vitrified clay pipes:**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

**uPVC pipes and fittings:**

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings:**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

**Carried to Collection**

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 10  
 PLUMBING AND DRAINAGE

R

**Copper pipes:**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

**Fixing of pipes**

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

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Wire gratings**

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

**Septic tanks**

Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions

**Carried to Collection**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 10  
 PLUMBING AND DRAINAGE

**Exposed concrete surfaces**

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

**Excavations**

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

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

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

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

**Flush pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Carried to Collection**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 10  
 PLUMBING AND DRAINAGE

**Waste unions**

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

**Steel sectional water tanks**

Tanks shall comply with SABS CKS 114

**"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.**

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc

**SOIL DRAINAGE**

uPVC pipes

1	110mm Pipes laid in and including trenches not exceeding 1m deep	m	6	
---	--	---	---	--

Extra over uPVC pipes for fittings

2	110mm Bend	No	2	
3	110mm Junction	No	2	
4	110 x 50mm Reducing junction	No	2	
5	110mm Double junction	No	2	

Pre-cast concrete gulleys

6	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	1	
---	--	----	---	--

**Carried to Collection**

R

Section No. 8  
 FD7 - ENVIRO LOO  
 Bill No. 10  
 PLUMBING AND DRAINAGE

	<u>Sundries</u>				
7	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	4		
8	100mm Cast iron "ABC" cleaning eye	No	1		
9	Testing drainage pipe system		Item		
	<b><u>SANITARY FITTINGS</u></b>				
	<u>"Vaal"</u>				
10	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	1		
	<b><u>WASTE UNIONS ETC</u></b>				
	<u>"Cobra Watertech"</u>				
11	38mm "Cobra 316" unslotted waste and plug with chain	No	1		
	<b><u>TRAPS ETC</u></b>				
	<u>"Cobra Watertech"</u>				
12	"Cobra Ref. 365/40" CP bottle trap	No	1		
	<b><u>TAPS, VALVES, ETC</u></b>				
	<u>"Cobra Watertech"</u>				
13	15mm CP connectors	No	2		
14	25mm 1001/125RB fullway gate valve	No	2		
15	Ref. 232-10 Angle regulating valve with connection pipes etc.	No	2		
16	"Cobra Ref. 232/350" Angle regulating valve	No	1		
	<b>Carried to Collection</b>				
	Section No. 8				
	FD7 - ENVIRO LOO				
	Bill No. 10				
	PLUMBING AND DRAINAGE				

R

17	COB-503-21B/N Elbow action. With 1/4 turn ceramic disc headpart, flanged backnut and blue indice for cold water application. 1/2BSP male iron connection end.	No	1	
	<b><u>SANITARY PLUMBING</u></b>			
	<u>uPVC pipes</u>			
18	110mm Pipes laid in and including trenches not exceeding 1m deep	m	10	
	<u>Extra over uPVC pipes for fittings</u>			
19	110mm Junction	No	2	
20	110mm Reducing junction	No	2	
21	110mm Double junction	No	2	
22	110mm "GI Two-way" vent valve	No	2	
	<u>Sundries</u>			
23	Testing waste pipe system		Item	
	<b><u>WATER SUPPLIES</u></b>			
	<u>Class 0 copper pipes</u>			
24	15mm Pipes	m	30	
	<u>Extra over class 0 copper pipes for capillary fittings</u>			
25	15mm Fittings	No	30	
	<b><u>ENVIRO-LOO TOILET SYSTEMS</u></b>			
26	Supply and installation of complete Enviroo loo System 1040 industrial STD CER/ABS-1 (CODE FG-1040 STDCA/A)	No	8	
27	Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	4	
	<b>Carried to Collection</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 10 PLUMBING AND DRAINAGE			

	<b><u>SUPERVISION OF INSTALLATION OF "ENVIRO LOO"</u></b>			
	<u>The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of "enviro loo":</u>			
28	Two site visits to be made by the "Enviro loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed corretly at which time a Certificate of compliance should be issued between the Department of Public Works Limpopo and Enviro Loo Options Limpopo. ( CONTRACTOR SHOULD NOT PRICE FOR THIS ITEM		Item	2 000,00
29	Profit and attendance for above		Item	
	<b><u>TAPS, VALVES, ETC</u></b>			
30	19mm Chromium plated push-buton taps to wash troughs	No	4	
	<u>Sundires</u>			
31	Stainless-steel SHE-BIN protection cage plugged to walls	No	8	
	<b>Carried to Collection</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 10 PLUMBING AND DRAINAGE			

Section No. 8

FD7 - ENVIRO LOO

Bill No. 10

PLUMBING AND DRAINAGE

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

219

220

221

222

223

224

225

226

**Carried Forward to Summary of Section No. 8**

R

Section No. 8

FD7 - ENVIRO LOO

Bill No. 10

PLUMBING AND DRAINAGE

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.8</u></b></p> <p><b><u>BILL NO. 11</u></b></p> <p><b><u>GLAZING</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><b><u>GLAZING TO STEEL WITH PUTTY</u></b></p> <p><u>6.38mm Obscure safety glass</u></p>			
1	Panes not exceeding 0,1 m2	m2	4	
	<b>Carried Forward to Summary of Section No. 8</b>			R
	Section No. 8 FD7 - ENVIRO LOO Bill No. 11 GLAZING			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>ON FIBRE-CEMENT</u></b>			
	<u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u>			
1	On fascias and barge boards	m2	6	
	<b><u>ON WOOD</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
2	On doors (Internal)	m2	21	
3	On doors (External)	m2	7	
	<b><u>ON METAL</u></b>			
	<u>Undercoat and minimum 2 coat gloss enamel</u>			
4	On door frames	m2	6	
5	On gates (Measured over the full flat area of both sides)	m2	7	
	<u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u>			
6	On windows with burglar bars	m2	5	
	<b>Carried Forward to Summary of Section No. 8</b>			R
	Section No. 8			
	FD7 - ENVIRO LOO			
	Bill No. 12			
	PAINTWORK			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.8</u></b>			
	<b><u>BILL NO.13</u></b>			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	38	
	<u>15 MPa/20 mm concrete</u>			
2	Aprons cast in panels to falls	m3	4	
3	Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc.	m	38	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Aprons to falls	m2	38	
	<u>Smooth formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	38	
	<b>Carried Forward to Summary of Section No. 8</b>			R
	Section No. 8			
	FD7 - ENVIRO LOO			
	Bill No. 13			
	CONCRETE APRONS			

	Section No. 8			
	FD7 - ENVIRO LOO			
	<b><u>SECTION SUMMARY - FD7 - ENVIRO LOO</u></b>			
Bill No		Page No		Amount
1	EARTHWORKS	197		
2	CONCRETE, FORMWORK AND REINFORCEMENT	200		
3	MASONRY	204		
4	WATERPROOFING	205		
5	ROOF COVERINGS	208		
6	CARPENTRY AND JOINERY	211		
7	IRONMONGERY	214		
8	METALWORK	217		
9	IN SITU FINISHES	218		
10	PLUMBING AND DRAINAGE	227		
11	GLAZING	228		
12	PAINTWORK	229		
13	CONCRETE APRONS	230		
	<b>Carried to Final Summary</b>			R
	Section No. 8			
	FD7 - ENVIRO LOO			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.9</u></b>			
	<b><u>BILL NO. 1</u></b>			
	<b><u>WATER SUPPLIES</u></b>			
	<u>Class 10 HDPe type IV pipes</u>			
1	40mm Pipes laid in and including trenches not exceeding 1m deep	m	5	
2	50mm Pipes laid in and including trenches not exceeding 1m deep	m	43	
	<u>Extra over Class 10 HDPE type IV pipes for fittings</u>			
3	40mm Fittings	No	5	
4	40mm Reducer	No	1	
5	40mm Bend	No	2	
6	50mm Reducer	No	1	
7	50mm Bend	No	2	
8	50mm Threaded adaptor	No	2	
	<u>Galvanised medium steel pipes with screwed and socket</u>			
9	50mm Pipes	m	4	
	<b>Carried to Collection</b>			R
	Section No. 9 EXTERNAL WORKS Bill No. 1 WATER SUPPLIES			

<u>Extra over galvanised medium steel pipes with screwed and socketed joints for steel fittings</u>			
10	50mm Fittings	No	2
11	50mm Bush	No	2
12	50mm Elbow	No	2
<u>Galvanised medium normalized mild steel piping</u>			
13	25mm Standpipes	m	1
<u>Extra over galvanised piping for galvanized mild steel fittings</u>			
14	25mm Fittings	No	2
<u>Valve boxes</u>			
15	600 x 600mm Stopcock box complete as per detail drawing "Valve chamber" including 400 x 400 cast iron cover and frame depth not exceeding 750mm internally	No	1
<u>Cover, etc</u>			
16	300 x 300 x 50mm Precast concrete pipeline marker Slab set in Ground	No	1
17	Cutting into existing water pipe	No	1
<b>Carried to Collection</b>			R
Section No. 9 EXTERNAL WORKS Bill No. 1 WATER SUPPLIES			

Section No. 9

EXTERNAL WORKS

Bill No. 1

WATER SUPPLIES

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

232

233

**Amount**

**Carried Forward to Summary of Section No. 9**

R

Section No. 9  
 EXTERNAL WORKS  
 Bill No. 1  
 WATER SUPPLIES

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.9</u></b>			
	<b><u>BILL NO. 2</u></b>			
	<b><u>ELEVATED WATER TANKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>EXCAVATIONS</u></b>			
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Holes	m3	3	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
2	Soft rock	m3	0,3	
3	Hard rock	m3	0,1	
	<u>Extra over all excavations for carting away:</u>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	2	
	<u>Risk of collapse of excavations</u>			
5	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	11	
	<u>Keeping excavations free of water.</u>			
6	Keeping excavations free of water other than subterranean water		Item	
	<b>Carried to Collection</b>			R
	Section No. 9 EXTERNAL WORKS Bill No. 2 WATER TANKS			

	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
7	Backfilling to trenches, holes, etc. <u>15Mpa/19mm Concrete</u>	m3	1		
8	Blinding <u>25Mpa/19mm Concrete</u>	m3	1		
9	Bases	m3	2		
	<b><u>TEST CUBES</u></b>				
10	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. <u>Finishing top surfaces of concrete smooth with a wood float</u>	No	2		
11	On top of bases <u>"Jojo" or equal approved SANS PVC water tanks</u>	m2	6		
12	10 000 Litre plastic water tank fitted onto and secured to tank platforms <u>Galvanized medium normalized mild steel piping</u>	No	1		
13	25mm Pipes	m	18		
14	50mm Pipes	m	43		
	<u>Extra over galvanised mild steel water supply pipes for fittings</u>				
15	25mm Fittings	No	4		
	<b>Carried to Collection</b>				
	Section No. 9 EXTERNAL WORKS Bill No. 2 WATER TANKS				R

16	50mm Elbows	No	4		
17	50mm Union	No	8		
18	50mm Reducing bush	No	1		
	<u>"Cobra Watertech" or other equal approved</u>				
19	15mm "Cobra Ref. 108LK" brass hose biptap.	No	1		
20	50mm Fullway gate valve	No	1		
	<b><u>TESTING</u></b>				
	<u>Testing of water tanks</u>				
21	Testing for tank			Item	
	<u>The following in structural steel tank stands</u>				
	<u>Welded steel columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>				
22	40 x 40 x 3mm Hot rolled angle section bracing	kg	42		
23	40 x 40 x 6mm Hot rolled angle section horizontal struts	kg	154		
24	80 x 80 x 6mm Hot rolled angle section columns, base plates and pipe clamps	kg	404		
25	125 x 75 x 10mm Hot rolled angle section floor beams	kg	182		
26	125 x 75 x 20 x 2.5mm Cold rolled lipped channel floor joists	kg	252		
27	30 x 6mm Cold rolled flat section bracing	kg	217		
28	High strength friction grip bolts	kg	22		
	<b>Carried to Collection</b>				R
	Section No. 9 EXTERNAL WORKS Bill No. 2 WATER TANKS				

29	10mm Diameter U-shaped holding down bolt 250mm girth fixed to columns	No	33		
30	12mm Diameter L-shaped threaded anchor bolt 350mm girth embedded in top of concrete	No	11		
	<b><u>PAINTWORK ETC TO NEW WORK</u></b>				
	<b><u>ON METAL</u></b>				
	<u>Undercoat and minimum 2 coat gloss enamel</u>				
31	Paint to structural steel	m	210		
	<b><u>STEEL TANKS, ETC</u></b>				
	<u>"Abeco Tank cc" or equal approved SANS steel water tank</u>				
32	Supply and install 4.88m long x 4.88m wide X 2.44m high elevated steel tank on a 12m high stand	No	1		
	<b>Carried to Collection</b>			R	
	Section No. 9 EXTERNAL WORKS Bill No. 2 WATER TANKS				

Section No. 9

EXTERNAL WORKS

Bill No. 2

WATER TANKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

235

236

237

238

**Carried Forward to Summary of Section No. 9**

R

Section No. 9  
 EXTERNAL WORKS  
 Bill No. 2  
 WATER TANKS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.9</u></b>			
	<b><u>BILL NO 3</u></b>			
	<b><u>WALKWAYS</u></b>			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	320	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	320	
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Excavations	m3	96	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
4	Soft rock	m3	10	
5	Hard rock	m3	5	
	<u>Extra over all excavations for carting away:</u>			
6	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	48	
	<u>Prescribed density tests on filling</u>			
7	Modified AASHTO Density tests	No	7	
	<b><u>SOIL POISONING</u></b>			
	<b>Carried to Collection</b>			R
	Section No. 9 EXTERNAL WORKS Bill No. 3 WALKWAYS			

	<u>Soil insecticide</u>				
8	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	320		
	<u>Compaction of surfaces</u>				
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	m2	320		
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, paving, etc	m3	48		
	<u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density</u>				
11	Imported natural gravel material (minimum G5 material to TRH14) supplied by the contractor and brought onto site from commercial sources in filling under paving, etc compacted in layers not exceeding 150mm thick to 90% modified AASHTO density	m3	48		
12	50mm Thick clean, dry, riversand layer treated with an approved weed killer at the rate of 50 grams per square metre, spread and levelled to receive paving blocks	m3	6		
	<b><u>PAVING</u></b>				
	<u>Paving of 200 x 100 x 60mm thick precast concrete paving blocks with butt joints on 20mm thick river sand bed with sand swept into joints including preparation of ground or filling</u>				
13	60mm Interlocking concrete paving blocks type SA Herring Bone in accordance with SABS Specification 1058 and laid to falls on sand layer(measured elsewhere) with joints filled with sand and vibrated, including all straight cutting	m2	320		
	<b>Carried to Collection</b>			R	
	Section No. 9 EXTERNAL WORKS Bill No. 3 WALKWAYS				

14	<p><u>Unmountable kerbs</u></p> <p>Unmountable kerbing to SABS 927 in 1m lengths with 10mm wide butt joints filled in with (1:3) cement/sand mortar and pointed with grooved half round joints and 10mm wide open butt joints at 3m centres including 15MPa/19mm mass concrete bedding size 30mm thick x 400mm wide and 20MPa/19mm mass concrete hunching size 112.5mm long x 112.5mm high x 85mm thick at joints and backfilling to back of kerbs, topsoiled and levelled to adjacent surfaces</p>	m	370	
<b>Carried to Collection</b>				R
<p>Section No. 9          EXTERNAL WORKS          Bill No. 3          WALKWAYS</p>				

Section No. 9

EXTERNAL WORKS

Bill No. 3

WALKWAYS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

240

241

242

**Carried Forward to Summary of Section No. 9**

R

Section No. 9  
 EXTERNAL WORKS  
 Bill No. 3  
 WALKWAYS

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.9</u></b>			
	<b><u>BILL NO. 4</u></b>			
	<b><u>SEPTIC TANKS, ETC.</u></b>			
	<b><u>SITE CLEARANCE ETC</u></b>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	42	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	42	
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Holes	m3	22	
	<u>Excavation in earth exceeding 2m and not exceeding 4m deep</u>			
4	Holes	m3	1	
	<u>Extra over all excavations for carting away</u>			
5	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	22	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	22	
7	Sides of trench and hole excavations exceeding 1,5m deep not exceeding 3m	m2	8	
	<b>Carried to Collection</b>			R
	Section No. 9 EXTERNAL WORKS Bill No. 4 SEPTIC TANK			

	<u>Keeping excavations free of water</u>				
8	Keeping excavations free of all water other than subterranean water			Item	
	<b><u>REINFORCED CONCRETE</u></b>				
	<u>25MPa/19mm concrete</u>				
9	Surface beds	m3	1		
10	Slab over septic tank	m3	1		
	<u>Permanent formwork to soffits</u>				
11	Slab over septic tank	m2	11		
	<b><u>REINFORCEMENT</u></b>				
	<u>High steel reinforcement to structural concrete work</u>				
12	Type 395 fabric reinforcement in concrete slabs etc	m2	11		
	<b><u>MASONRY</u></b>				
	<u>Brickwork of NFP bricks in class II mortar</u>				
13	One brick walls	m2	30		
14	Half brick walls	m2	2		
	<u>Brickwork reinforcement</u>				
15	150mm Wide reinforcement built in horizontally	m	117		
	<b><u>BRICKWORK SUNDRIES</u></b>				
16	Leave or form 450 x 600mm high opening through concrete slab	No	2		
17	Leave or form opening through one brickwall for pipe exceeding 100mm and not exceeding 200mm diameter	No	1		
	<b>Carried to Collection</b>				R
	Section No. 9 EXTERNAL WORKS Bill No. 4 SEPTIC TANK				

18	Leave or form opening through one brickwall for pipe exceeding 50mm and not exceeding 100mm diameter	No	2		
19	Leave or form opening through half brickwall for pipe exceeding 50mm and not exceeding 100mm diameter	No	2		
	<b><u>PLASTERING</u></b>				
	<u>Watertight cement plaster on brickwork</u>				
20	On walls	m2	31		
	<b><u>FLOOR AND WALLS SEALERS</u></b>				
	<u>Minimum two coats approved epoxy coat:</u>				
21	On internal textured plaster walls and floors in pit	m2	41		
	<b><u>PLUMBING AND DRAINAGE</u></b>				
	<u>uPVC pipes</u>				
22	110mm Pipes	m	6		
	<u>Extra over uPVC pipes for fittings</u>				
23	110mm Tee	No	1		
24	50mm Tee	No	1		
	<u>Cover, etc</u>				
25	450 x 600mm Type 2A cast iron single seal manhole cover and frame	No	2		
26	Lifting key for manhole cover	No	2		
	<b><u>FRENCH DRAINS TO GREYWATER SYSTEMS</u></b>				
	<b><u>The following in one french drain:</u></b>				
	<u>Excavation in earth or compacted platforms exceeding 2m and not exceeding 4m deep</u>				
27	Holes	m3	2		
	<b>Carried to Collection</b>				
	Section No. 9 EXTERNAL WORKS Bill No. 4 SEPTIC TANK				R

	<u>Risk of collapse of excavations</u>				
28	Sides of excavations for french drains not exceeding 1,5m deep	m2	7		
	<u>Extra over all excavations for carting away</u>				
29	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	2		
	<u>Keeping excavations free of water</u>				
30	Keeping excavations free of water		Item		
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site compacted to 93% Mod. AASHTO density</u>				
31	In backfilling to top of french drain	m3	2		
	<u>Stone pitching of approximately 20--75mm diameter river stones tightly packed</u>				
32	In french drains	m3	2		
	<u>"Bidem B3" filter fabric with 200mm laps</u>				
33	Around stone filling in sub-soil french drains	m2	2		
	<b>Carried to Collection</b>			R	
	Section No. 9 EXTERNAL WORKS Bill No. 4 SEPTIC TANK				

Section No. 9

EXTERNAL WORKS

Bill No. 4

SEPTIC TANK

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

244

245

246

247

**Carried Forward to Summary of Section No. 9**

R

Section No. 9  
 EXTERNAL WORKS  
 Bill No. 4  
 SEPTIC TANK

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.9</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>STORMWATER CONTROL</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>Earthworks</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc	m2	370	
2	Excavate in earth below natural, reduced or made up ground level , not exceeding 2m deep, to reduced levels under aprons, paving, etc	m3	111	
3	Extra over surplus material from excavations and/stock piles on site to the dumping site to be located by the Contractor	m3	56	
4	Extra over trench or hole for excavations in soft rock	m3	11	
5	Extra over trench or hole for excavations in hard rock	m3	6	
6	Re-compaction of disturbed formation levels, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	370	
7	Treat soil under concrete rain water channels, etc. with an approved insecticide solution at the rate not less than 2 litre per 1m2	m2	370	
	<b>Carried to Collection</b>			R
	Section No. 9 EXTERNAL WORKS Bill No. 5 STORMWATER CONTROL			

8	<p><u>Precast Concrete</u></p> <p>D11 Channel                  Large shallow open-ended channel section.                  Length: 500mm                  Mass: 97kg per section                  Prod. no.: P2-0609</p>	m	370	
<p>Section No. 9                  EXTERNAL WORKS                  Bill No. 5                  STORMWATER CONTROL</p>		<p><b>Carried to Collection</b></p>		<p>R</p>

Section No. 9

EXTERNAL WORKS

Bill No. 5

STORMWATER CONTROL

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

249

250

**Amount**

**Carried Forward to Summary of Section No. 9**

R

Section No. 9

EXTERNAL WORKS

Bill No. 5

STORMWATER CONTROL

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.9</u></b>			
	<b><u>BILL NO 6</u></b>			
	<b><u>FENCING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	155	
	<b><u>EXCAVATIONS</u></b>			
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Holes	m3	5	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
3	Soft rock	m3	1	
4	Hard rock	m3	0,3	
	<u>Extra over all excavations for carting away:</u>			
5	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	5	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	104	
	<b>Carried to Collection</b>			R
	Section No. 9 EXTERNAL WORKS Bill No. 6 FENCING			

	<u>Keeping excavations free of water.</u>				
7	Keeping excavations free of water other than subterranean water		Item		
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>				
	<b><u>UNREINFORCED CONCRETE, ETC</u></b>				
	<u>25Mpa/19mm Concrete</u>				
8	Bases	m3	5		
	<b><u>FENCING</u></b>				
	<u>Steel palisade as per attached drawings complete, joined to brick columns and brickwalls, the fence painted on both sides (colour to architects)</u>				
9	Galvanised Steel palisade fence 1800mm high with pales formed of 30 x 30 x 2.0mm angle iron paling 1.8m high with devil fork effect on top and bottom with the dove tail fixed to 2,4m high posts size 76 x 76 x 2mm square tubing with closing pyramid caps on top posts at 3m centres min, with 40 x 40 x 2mm angle iron bearers placed 300mm from top paling and 300mm from bottom paling welded flash with the back of the posts as per manufacturers instructions fixed in position as indicated on the drawings	m	155		
	<b><u>GATES, ETC.</u></b>				
10	Sliding galvanised palisade gate of 75 x 75 mm mild steel framing size 5000 x 1800mm high vertically with spear head finish, each leaf with formed with bottom and top horizontal bearers of 60 x 30 x 2-2.5mm lipped and slotted channels fixed in position aligned with the brick plinth with 40 x 40 x 2.5-3mm hot rolled angles used for palisade palling slotted and welded at 100mm centres into the horizontal members with and including a mild steel locking system consisting of mild steel plate and mild steel bolt lock including padlock with keys (LI)	No	2		
	<b>Carried to Collection</b>				R
	Section No. 9 EXTERNAL WORKS Bill No. 6 FENCING				

11	<p>Pedestrain galvanised palisade gate of 60 x 60mm mild steel framing size 1500 x 1800mm high vertically with spear head finish, each leaf with formed with bottom and top horizontal bearers of 60 x 30 x 2-2.5mm C-channel and slotted channels fixed in position welded to 35 x 35mm galvanised steel post and with 40 x 40 x 2.5-3mm hot rolled angles used for palisade palling slotted and welded at 100mm centres into the horizontal members with and including a mild steel locking system consisting of mild steel plate and mild steel bolt lock including padlock with keys and gate handles fixed to rectangular 1mm plate with swivel castors on opening sections and barrel bolts into paving</p> <p style="text-align: right;">No</p> <p><b><u>PAINTWORK ETC TO NEW WORK</u></b></p> <p><b><u>ON METAL</u></b></p> <p><u>Plascon Super Universal Enamel to exterior new galvanised(NW 620).Surface to be clean and dry. Apply Plascon Galvanised Iron Cleaner (GIC 1) to all bare galvanised areas. Rinse off with tap water using bristle brush or Scotch Brite pads to remove all surface contaminants, until surface is water-free. Prime with one coat of Galvanised Iron Primer (GIP 1) and finish with two coats of Universal Enamel (NY 1/G)</u></p>	2		
12	<p>On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area ) (LI)</p> <p style="text-align: right;">m2</p>	558		
	<p><b>Carried to Collection</b></p>			R
	<p>Section No. 9                  EXTERNAL WORKS                  Bill No. 6                  FENCING</p>			

Section No. 9

EXTERNAL WORKS

Bill No. 6

FENCING

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

252

253

254

**Carried Forward to Summary of Section No. 9**

R

Section No. 9  
 EXTERNAL WORKS  
 Bill No. 6  
 FENCING

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.9</u></b>			
	<b><u>BILL NO 7</u></b>			
	<b><u>RAINWATER HARVEST TANKS,ETC</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SITE CLEARANCE</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.	m2	101	
	<b><u>EXCAVATIONS</u></b>			
	<b><u>EXCAVATION,FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Trenches	m3	12	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
3	Soft rock	m3	0,4	
4	Hard rock	m3	0,2	
	<u>Extra over all excavations for carting away:</u>			
5	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	4	
	<b>Carried to Collection</b>			R
	Section No. 9 EXTERNAL WORKS Bill No. 7 RAINWATER HARVEST TANKS			

<u>Risk of collapse of excavations</u>					
6	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	35		
<u>Keeping excavations free of water.</u>					
7	Keeping excavations free of water other than subterranean water		Item		
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>					
8	Under floors, steps, pavings, etc.	m3	3		
9	Backfilling to trenches, holes, etc.	m3	6		
<u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density</u>					
10	Under floors, steps, paving etc.	m3	3		
<u>Compaction of surfaces</u>					
11	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 <b>AASHTO</b> density	m2	11		
<u>Prescribed density tests on filling</u>					
12	Modified AASHTO Density tests	No	5		
<b><u>SOIL POISONING</u></b>					
<u>Soil insecticide</u>					
13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	11		
14	<b>To</b> bottoms and sides of trenches, etc.	m2	54		
<b>Carried to Collection</b>					R
Section No. 9 EXTERNAL WORKS Bill No. 7 RAINWATER HARVEST TANKS					

<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
<b><u>UNREINFORCED CONCRETE, ETC</u></b>			
<u>25Mpa/19mm Concrete</u>			
15	Strip footings	m3	4
<b><u>REINFORCED CONCRETE, ETC</u></b>			
<u>25Mpa/19mm Concrete</u>			
16	Slabs	m3	1
<b><u>TEST CUBES</u></b>			
17	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	5
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
18	Surface beds, slabs, etc.	m2	11
<b><u>REINFORCEMENT</u></b>			
<u>Mesh Reinforcement (measure nett)</u>			
19	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	11
<b><u>WATERPROOFING</u></b>			
<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
20	Under surface beds	m2	11
<b><u>BRICKWORK</u></b>			
<b>Carried to Collection</b>			R
Section No. 9 EXTERNAL WORKS Bill No. 7 RAINWATER HARVEST TANKS			

**SUPPLEMENTARY PREAMBLES**

For preambles see "Specifications of materials and methods to be used - PW 371"

**BRICKWORK**

Sizes in descriptions

Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick

Hollow walls etc

Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.

Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.

User note: The above preamble generally applies for works in hot and humid coastal areas

Face bricks

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

**Pointing**

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

**SAMPLES**

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

**Carried to Collection**

R

Section No. 9  
 EXTERNAL WORKS  
 Bill No. 7  
 RAINWATER HARVEST TANKS

	<b><u>FOUNDATIONS</u></b>				
	<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>				
21	One brick walls	m2	15		
	<b><u>FACE BRICKWORK</u></b>				
	<u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>				
22	Extra over brickwork for face brickwork in foundation	m2	8		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<u>Brick reinforcement</u>				
23	150mm Wide reinforcement built in horizontally	m	36		
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>				
	<u>"Jojo" or equal approved SANS PVC water tanks</u>				
24	2 500 Litre plastic water tank fitted onto and secured to tank platforms complete with all necessary plumbing fittings	No	5		
	<b><u>TESTING</u></b>				
	<u>Testing of water tanks</u>				
25	Testing for tank		Item		
	<b>Carried to Collection</b>				R
	Section No. 9				
	EXTERNAL WORKS				
	Bill No. 7				
	RAINWATER HARVEST TANKS				

Section No. 9

EXTERNAL WORKS

Bill No. 7

RAINWATER HARVEST TANKS

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

256

257

258

259

260

**Carried Forward to Summary of Section No. 9**

R

Section No. 9

EXTERNAL WORKS

Bill No. 7

RAINWATER HARVEST TANKS

	Section No. 9			
	EXTERNAL WORKS			
	<b><u>SECTION SUMMARY - EXTERNAL WORKS</u></b>			
<b>Bill No</b>		<b>Page No</b>		<b>Amount</b>
1	WATER SUPPLIES	234		
2	WATER TANKS	239		
3	WALKWAYS	243		
4	SEPTIC TANK	248		
5	STORMWATER CONTROL	251		
6	FENCING	255		
7	RAINWATER HARVEST TANKS	261		
	<b>Carried to Final Summary</b>		R	
	Section No. 9			
	EXTERNAL WORKS			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.10</u></b>			
	<b><u>BILL NO.1</u></b>			
	<b><u>PROVISIONAL SUMS</u></b>			
	All the provisional sums cover supply of material and equipment and installation where applicable by firms of specialists.			
	Provisional sums are net and do not include builder's discount, but the Tenderer may allow under "Profit" items any profit he considers necessary.			
	The Tenderer is referred to Clause 87.1 and 87.2 in the "Preliminaries" section for the definition and adjustment of "General Attendance".			
	<b><u>N.B ALL PROVISIONAL WORKS ARE SUBJECT TO RE-MEASUREMENTS. THE PROVISIONAL WORK SHALL BE PAID AS PER THE WORK DONE</u></b>			
	<u>Ground Water Treatment Package Plant</u>			
1	Provide the amount of R260 000.00 (Two hundred and sixty thousand rands) for ground water treatment plant by Specialists	Item		260 000,00
2	Profit	Item		
3	Attendance	Item		
	<u>Refurbish &amp; Equipping of Existing Borehole</u>			
4	Provide the amount of R125 000.00 (One hundred and twenty five thousand rands) for equipping existing borehole by Specialists	Item		125 000,00
5	Profit	Item		
6	Attendance	Item		
	<b>Carried to Collection</b>			R
	Section No. 10 PROVISIONAL SUMS Bill No. 1 Provisional sums			

<u>Rental of Chemical Toilets</u>				
7	Provide the amount of R50 000.00 (Fifty thousand rands) for rental of chemical toilets by Specialists	Item		50 000,00
8	Profit	Item		
9	Attendance	Item		
<u>Concrete Palisade Fence</u>				
10	Provide the amount of R450 000.00 (Four fifty thousand rands) for installation of concrete palisade by Specialists	Item		450 000,00
11	Profit	Item		
12	Attendance	Item		
<b>Carried to Collection</b>				
Section No. 10 PROVISIONAL SUMS Bill No. 1 Provisional sums			R	

Section No. 10

PROVISIONAL SUMS

Bill No. 1

Provisional sums

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

263

264

**Amount**

**Carried to Final Summary**

R

Section No. 10  
 PROVISIONAL SUMS  
 Bill No. 1  
 Provisional sums

Section No	<u>FINAL SUMMARY</u>	Page No		Amount
1	PRELIMINARIES AND GENERAL	29		
2	DEMOLITIONS	30		
3	SM2 - WATERBORNE	64		
4	SFD3 - WATERBORNE	101		
5	GRD7 - WATERBORNE	138		
6	M8 - ENVIRO LOO	167		
7	F8 - ENVIRO LOO	194		
8	FD7 - ENVIRO LOO	231		
9	EXTERNAL WORKS	262		
10	PROVISIONAL SUMS	265		
	SUB TOTAL (A)		R	
	Provide 10% (TEN PERCENT) on Sub-total (A) as contingency to be deducted in whole or in part if not required	Item		
	SUB TOTAL (B)		R	
	Add VAlue Added Tax @ 15%		R	
	<b>Carried to Final Cluster summary</b>		R	