

<u>Item No</u>		<u>Quantity</u>	<u>Amount</u>
	<b><u>SECTION 1</u></b>		
	<b><u>BILL 1</u></b>		
	<b><u>PRELIMINARIES</u></b>		
	<b><u>NOTES</u></b>		
i)	The <b>Agreement</b> is to be the JBCC Series 2000 Principal Building Agreement, March 2005 Edition, including all other JBCC support documentation that together form the contract between the Employer and Contractor		
ii)	The <b>Preliminaries</b> are to be the JBCC Series 2000 Preliminaries, May 2005 Edition for use with the JBCC Principal Building Agreement and shall be deemed to be incorporated herein		
iii)	The Tenderer is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause. These clauses are referred to by clause number and heading only		
iv)	Where standard clauses or options are not applicable to this contract such modifications, corrections or supplements as are necessary, are given under each relevant clause		
v)	Where any items are not used for this specific contract such items are nevertheless listed but marked NOT APPLICABLE in the amount column		
vi)	If option A as set out in clause B10.3.1 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 and entered in the spaces provided under each item		
vii)	Items not priced in these preliminaries shall be deemed to be included elsewhere		
viii)	Should there be any discrepancy between these Preliminaries and the Agreement, these Preliminaries shall take precedence		
	<b>Carried Forward</b>	R	
	Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward		R
<b><u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u></b>		
1		Item
<b><u>OBJECTIVE AND PREPARATION (A2 TO A14)</u></b>		
2	Offer, acceptance and performance (clause 2)	
	Fixed:..... Value Related:..... Time Related:.....	Item
3	Documents (clause 3)	
	Fixed:..... Value Related:..... Time Related:.....	Item
4	Design responsibility (clause 4)	
	Fixed:..... Value Related:..... Time Related:.....	Item
5	Employer's agents (clause 5)	
	Fixed:..... Value Related:..... Time Related:.....	Item
6	Site representative (clause 6)	
	Fixed:..... Value Related:..... Time Related:....	Item
7	Compliance with regulations (clause 7)	
	Occupational Health and Safety Act, 1993	
	Without limiting the generality of the provisions of clause 7.1 of the <b>Agreement</b> , the <b>Contractor's</b> attention is drawn to the provisions of the Construction Regulations, 2003 issued in terms of the Occupational Health and Safety Act, 1993 in which it is specifically stated that the <b>Employer</b> shall prepare a documented health and safety specification for the <b>Works</b> and that the <b>Employer</b> shall ensure that the <b>Contractor</b> has made provision for the cost of health and safety measures during the execution of the Works	
	Fixed:..... Value Related:..... Time Related:.....	Item
Carried Forward		R
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

	Brought Forward	R	
8	Works risk (clause 8) Fixed:..... Value Related:..... Time Related:.....	Item	
9	Indemnities (clause 9) Fixed:..... Value Related:..... Time Related:.....	Item	
10	Works insurances (clause 10) Fixed:..... Value Related:..... Time Related:.....	Item	
11	Liability insurances (clause 11) Fixed:..... Value Related:..... Time Related:.....	Item	
12	Effecting insurances (clause 12) Fixed:..... Value Related:..... Time Related:.....	Item	
13	Security (clause 14) Fixed:..... Value Related:..... Time Related:.....	Item	
14	No clause (clause 13)	Item	
	<b><u>EXECUTION (A15 TO A23)</u></b>		
15	Preparation for and execution of the Works (clause 15) Fixed:..... Value Related:..... Time Related:.....	Item	
16	Access to the Works (clause 16) Fixed:..... Value Related:..... Time Related:.....	Item	
	<b>Carried Forward</b>	R	
	Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

	Brought Forward	R	
17	<p>Contract instructions (clause 17)</p> <p>In addition to the provisions of sub-clause 17.3, contract instructions are to be recorded in triplicate in a contract instruction book, which is to be supplied and maintained on site by the <b>Contractor</b></p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
18	<p>Setting out of the Works (clause 18)</p> <p>The <b>Contractor</b> shall notify the <b>Project Manager</b> if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order to make the necessary arrangements for the rectification of any such encroachments</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
19	<p>Assignment (clause 19)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
20	<p>Nominated Subcontractors (clause 20)</p> <p>In addition to the provisions of sub-clause 20.1.2, the <b>Contractor</b> shall, at any time on being requested to do so by the <b>Project Manager</b>, furnish a copy of the JBCC Nominated/Selected Subcontract Agreement to the <b>Employer</b>, within five (5) working days of such request</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
21	<p>Selected Subcontractors (clause 21)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
22	<p>Employer's Direct Contractors (clause 22)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
	Carried Forward	R	
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries</p> <p><b>Construction of Lugangeni Feedlot Phase 01</b></p>		

	Brought Forward	R	
23	<p>Contractor's Domestic Subcontractors (Clause 23)</p> <p>In addition to the provisions of sub-clause 23.1, the <b>Contractor</b> shall, at any time on being requested to do so by the <b>Project Manager</b>, furnish a copy of the Domestic Subcontract Agreement to the <b>Employer</b>, within five (5) working days of such request</p> <p>Fixed:..... Value Related:..... Time Related:.....</p> <p><b><u>COMPLETION (A24 TO A30)</u></b></p>		
		Item	
24	<p>Practical completion (clause 24)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
25	<p>Works completion (clause 25)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
26	<p>Final completion (clause 26)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
27	<p>Latent defects liability period (clause 27)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
28	<p>Sectional completion (clause 28)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
29	<p>Revision of date for practical completion (clause 29)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
30	<p>Penalty for non completion (clause 30)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
	Carried Forward	R	
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries</p> <p><b>Construction of Lugangeni Feedlot Phase 01</b></p>		

Brought Forward		R	
<b><u>PAYMENT (A31 TO A35)</u></b>			
31	Interim payment to the contractor (clause 31)  Clause 31.4.2 is amended by adding the following:  Materials and goods stored off site shall not be included in the amount authorised for payment  Fixed:..... Value Related:..... Time Related:.....	Item	
32	Adjustment to the contract value (clause 32)  Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:  "due to no fault of the <b>contractor</b> "  Fixed:..... Value Related:..... Time Related:.....	Item	
33	Recovery of expense and loss (clause 33)  Fixed:..... Value Related:..... Time Related:.....	Item	
34	Final account and final payment (clause 34)  Fixed:..... Value Related:..... Time Related:.....	Item	
35	Payment to other parties (clause 35)  Fixed:..... Value Related:..... Time Related:.....	Item	
<b><u>CANCELLATION (A36 TO A39)</u></b>			
36	Cancellation by Employer - Contractor's default (clause 36)  Fixed:..... Value Related:..... Time Related:.....	Item	
Carried Forward		R	
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	Brought Forward	R
37 Cancellation by Employer - Loss and damage (clause 37) Fixed:..... Value Related:..... Time Related:.....	Item	
38 Cancellation by Contractor - Employer's default (clause 38) Fixed:..... Value Related:..... Time Related:.....	Item	
39 Cancellation - Cessation of the Works (clause 39) Fixed:..... Value Related:..... Time Related:..... <b><u>DISPUTE (A40)</u></b>	Item	
40 Dispute settlement (clause 40) Fixed:..... Value Related:..... Time Related:.....	Item	
<b>Carried Forward</b>		R
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward

R

**SUBSTITUTE PROVISIONS (A41)**

41 State clauses (clause 41)

The following standard clauses to be marked with a # or the # deleted as indicated:

Clause 3.5 - Add #  
 Clause 10.3 - Delete #  
 Clause 19.2 - Add #  
 Clause 21.1/10 - Add #  
 Clause 26.1.2 - Add #  
 Clause 31.12 - Add #  
 Clause 31.16 - Delete #  
 Clause 34.1 - Delete #  
 Clause 34.2 - Add #

The following state clause references are to be amended as indicated:

Clause 10.2/4 - Amend to 10.2 and 10.4, both marked "no clause"

The following state clauses are to be expanded as indicated:

Clause 34.1.2 - Add the wording "of the date of practical completion" after the words "working days"

The following additional state clauses are to be substituted for the standard clauses printed in the body of the text:

Clause 3.5 - See 5.1.2 below  
 Clause 21.1/10 - No clause

Fixed:..... Value Related:..... Time  
 Related:.....

Item

**CONTRACT VARIABLES (A42)****THE SCHEDULE**

42 Pre-tender information (clause 42)

Fixed:..... Value Related:..... Time  
 Related:.....

Item

Carried Forward

R

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<p style="text-align: right;"><b>Brought Forward</b></p> <p><b>42.1 CONTRACTING AND OTHER PARTIES</b></p> <p>42.1.1 <b>Employer:</b> Umzimvubu Local Municipality</p> <p style="padding-left: 40px;">Postal address: Private bag X9020 Mount Frere</p> <p style="padding-left: 40px;">Street Address: 67 Church Street, Mount Aylif,5090</p> <p>Tel (039) 254 9000</p> <p>Fax (039) 255 0167</p> <p>Email:</p> <p>42.1.2 <b>Project Manager:</b>Ugqoloma Consulting</p> <p style="padding-left: 40px;">Postal Address: Private bag X2054 Kokstad,4700/KZN</p> <p style="padding-left: 80px;">Cell: (071) 875 8952</p> <p style="padding-left: 80px;">Email: munthalis@ugqoloma.co.za</p> <p>42.1.3 <b>Architects:</b>EMKAY Architecture &amp; Project Management Interior</p> <p>[5.1]</p> <p style="padding-left: 40px;">Postal Address: P. O Box 38810 Matatiele,4730</p> <p style="padding-left: 40px;">Street Address: 33 Crieff Place Point, Durban</p> <p>Cell: (071) 405 9625</p> <p>Tel: (087) 265 0710</p> <p>Email: info@emkayarchitecture.co.za</p> <p style="text-align: right;"><b>Carried Forward</b></p> <p>Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b></p>	<p style="text-align: center;">R</p>
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Brought Forward	R	
<p>42.1.4 <b>Quantity Surveyors:</b> Tswana Quantity Surveyors [5.1] Postal Address: P.O Box 3406, Pinegowire,2123</p> <p>Cell: (078) 164 4924</p> <p>Fax: (086) 566 4154</p> <p>Email: Wezziewpmqs@gmail.com/Corebotse@webmail.co.za</p>		
<p>42.1.5 <b>Civil &amp; Structural Engineer:</b>Ugqoloma Consulting</p> <p>Postal Address: Private bag X2054 Kokstad,4700/KZN</p> <p>Cell: (071) 875 8952</p> <p>Email: munthalis@ugqoloma.co.za</p>		
<p>42.1.6 <b>Electrical Engineers:</b>MXN ElectroCON Projects [5.1] Postal Address: Private bag X3 Beacon Bay East London,5205</p> <p>Tel: (087) 702 4198</p> <p>Fax: (086) 263 8671</p> <p>Email: mxm@mxnep.com</p>		
<p><b>Carried Forward</b></p> <p>Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b></p>	R	

Brought Forward		R
<b>42.2</b>	<b><u>CONTRACT DETAILS</u></b>	
42.2.1	<b>Works description:</b>  See Notice to Tenderer s	
42.2.2	<b>Site description:</b>  See Notice to Tenderer s	
42.2.3 [22.2#]	Work or installations by <b>direct contractors:</b>  No clause	
42.2.4 organ only	Specific options that are applicable to a <b>State</b>	
[41.0]	Where so:	
[31.11.2#]	(1) Interest rate legislation: <b>As determined by the Minister of Justice in</b> <b>Section 1(2) of the Prescribed Rate of Interest</b> <b>1975 (Act no. 55 of 1975) from time to time</b>	
[11.2#] <b>Contractor:</b>	(2) Lateral support insurance to be effected by the <b>No</b>	
[31.4.2#]	(3) Payment will be made for <b>materials and goods:</b> <b>Yes</b>	
[40.2.2#]	(4) Dispute resolution by litigation:  <b>Yes</b>	
[26.1.2#] following	(5) Extended <b>defects</b> liability period applicable to the elements: <b>Structural steel</b>	
Carried Forward		R
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Brought Forward		R
42.2.5	Possession of the <b>site</b> is to be given:	
[15.2.1#]	<b>On the date to be notified by the Project Manager but after the contractor providing the employer with the construction guarantees in accordance with the provisions of 14.0</b>	
42.2.6	Period for the commencement of the <b>Works</b> after the <b>Contractor</b> takes possession of the <b>site</b> :	
[15.3]	<b>Five (5) working days</b>	
42.2.7	Intended date of <b>practical completion</b> and the <b>penalty</b>	
per	<b>calendar day</b> for the <b>works</b> as a whole:	
[24.3.1]	Six months from Site Handover Date	
[30.1]	and the <b>penalty</b> per <b>calendar day</b>	
	<b>An amount equal to one fourteenth percent of the contract sum (exclusive of VAT) per calendar day</b>	
42.2.8	Intended date of <b>practical completion</b> and the <b>penalty</b>	
per	<b>calendar day</b> for the <b>works</b> in <b>sections</b> :	
No clause		
42.2.9	The <b>law</b> applicable to this <b>agreement</b> shall be that of:	
[1.2]	<b>Republic of South Africa</b>	
<b>42.3</b>	<b><u>INSURANCES</u></b>	
42.3.1	Contract Works insurance to be effected by:	
[10.1#, 10.2#, 12.1#]		
	<b>Contractor:</b>	
	<b>For a sum equal to the Contract Sum plus 20%</b>	
	<b>With a deductible equal to 0,1% of the above insured amount</b>	
Carried Forward		R
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward		R
42.3.2	Supplementary insurance is required: [10.1#, 10.2#, 12.1#]	
	<b>No</b>	
42.3.3	Public liability insurance to be effected by: [11.1#, 12.1#]	
	<b>Contractor:</b>	
	<b>For the Sum of R 5 000 000.00....</b>	
	<b>With a deductible of R 5 000.00</b>	
42.3.4	Support insurance to be effected by: [11.2#, 12.1#]	
	<b>No applicable</b>	
<b>42.4</b>	<b><u>DOCUMENTS</u></b>	
42.4.1	Waiver of the <b>Contractor's</b> lien or right of continuing possession is required: [3.3#, 15.1.3#, 31.16.2#]	
	<b>Yes</b>	
42.4.2	Construction document copies to be supplied to the <b>Contractor</b> free of charge:	
[3.7]	<b>Two (2)</b>	
42.4.3	<b>Firm Bills of Quantities</b> drawn up in accordance with:	
	<b>Standard System of Measuring Building Work 1999,</b>	
<b>Sixth</b>	<b>Edition (Revised)</b>	
42.4.4	On acceptance of the tender the <b>bills of quantities</b> is to be submitted within <b>working days:</b> (N/A)	
[15.1.1]	<b>Priced bills of quantities to be submitted on close of tender</b>	
Carried Forward		R
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Brought Forward		R
42.4.5	<b>JBCC</b> Engineering General Conditions are to be included in the <b>contract documents:</b>	
[3.4]	<b>No</b>	
42.4.6	The <b>contract value</b> is to be adjusted using <b>CPAP</b> indices:	
[31.5.3]	<b>Yes</b>	
[32.13]	Where <b>CPAP</b> is to be used the base month is <b>as defined in the CPAP Indices Application Manual</b>	
	Alternative indices (if applicable):	
	<b>Not applicable</b>	
42.4.7	Details of changes made to the provision of <b>JBCC</b> standard documentation:	
[3.10]	<b>Section A</b>	
	Clause 7      Note added	
	Clause 14     Note added/amended	
	Clause 17     Note added	
	Clause 18     Note added	
	Clause 20     Note added	
	Clause 21     Note added	
	Clause 23     Note added	
	Clause 31     Amended	
	Clause 41     Amended	
Carried Forward		R
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward		R	
<b>Section B</b>			
Clause 2.5	Note added		
Clause 2.6	Amended		
Clause 4.1	Note added		
Clause 6.3	Note added		
Clause 6.4	Note added		
Clause 9.1	Note added		
Clause 10.1	Note added		
Clause 10.3	Note added/amended		
<b>Carried Forward</b>		R	
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward		R	
<b><u>SECTION B: PRELIMINARIES</u></b>			
<b><u>DEFINITIONS AND INTERPRETATION (B1)</u></b>			
43	Definitions and interpretation (B1.1 to B1.4.6)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
<b><u>DOCUMENTS (B2)</u></b>			
44	Checking of documents (B2.1)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
45	Provisional bills of quantities (B2.2)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
46	Availability of construction documentation (B2.3)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
47	Interests of agents (B2.4)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
Carried Forward		R	
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	Brought Forward	R	
48	<p>Priced documents (B2.5)</p> <p>Notwithstanding the provisions of this clause, the contractor shall submit the priced documents within the time as stated in A42.4.4 of the <b>Schedule of Contract Variables</b></p> <p>Rates (items)</p> <p>Where appropriate, rates for similar items in the various sections of these bills of quantities should be the same</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
49	<p>Tender submission (B2.6)</p> <p>This clause is amended by substituting "JBCC Form of Tender" with "<b>Official</b> Form of Tender":</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
	<b><u>THE SITE (B3)</u></b>		
50	<p>Defined works area (B3.1)</p> <p>See Schedule of Variables (B12)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
51	<p>Geotechnical investigation (B3.2)</p> <p>See Schedule of Variables (B12)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
52	<p>Inspection of the site (B3.3)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>		
		Item	
	<b>Carried Forward</b>	R	
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries</p> <p><b>Construction of Lugangeni Feedlot Phase 01</b></p>		

	<b>Brought Forward</b>	R	
53	Existing premises occupied (B3.4)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
54	Previous work - dimensional accuracy (B3.5)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
55	Previous work - defects (B3.6)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
56	Services - known (B3.7)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
57	Services - unknown (B3.8)  Fixed:..... Value Related:..... Time Related:.....	Item	
58	Protection of trees (B3.9)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
59	Articles of value (B3.10)  Fixed:..... Value Related:..... Time Related:.....	Item	
	<b>Carried Forward</b>	R	
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	Brought Forward	R	
60	<p>Inspection of adjoining properties (B3.11)</p> <p>See Schedule of Variables (B12)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
	<b><u>MANAGEMENT OF CONTRACT (B4)</u></b>		
61	<p>Management of the Works (B4.1)</p> <p>The <b>Contractor</b> shall obtain all necessary particulars of <b>Subcontractors'</b> work timeously so that provision for recesses, chases, holes, etc. can be made</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
62	<p>Programme for the Works (B4.2)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
63	<p>Progress meetings (B4.3)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
64	<p>Technical meetings (B4.4)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
65	<p>Labour and plant records (B4.5)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
	<b><u>SAMPLES, SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS (B5)</u></b>		
66	<p>Samples of materials (B5.1)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
	<b>Carried Forward</b>	R	
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries</p> <p><b>Construction of Lugangeni Feedlot Phase 01</b></p>		

	Brought Forward	R	
67	Workmanship samples (B5.2) Fixed:..... Value Related:..... Time Related:.....	Item	
68	Shop drawings (B5.3) Fixed:..... Value Related:..... Time Related:.....	Item	
69	Compliance with manufacturer's instructions (B5.4) Fixed:..... Value Related:..... Time Related:.....	Item	
	<b><u>TEMPORARY WORKS AND PLANT (B6)</u></b>		
70	Deposits and fees (B6.1) Fixed:..... Value Related:..... Time Related:.....	Item	
71	Enclosure of the works (B6.2) See Schedule of Variables (B12) Fixed:..... Value Related:..... Time Related:.....	Item	
72	Advertising (B6.3) Advertisements on the hoarding or elsewhere on the <b>site</b> will be allowed, subject to the written approval of the <b>Project Manager</b> Fixed:..... Value Related:..... Time Related:.....	Item	
73	Plant, equipment, sheds and offices (B6.4) In addition to the provisions of sub-clause B6.4.1, scaffolding shall not be permitted to be erected from buildings on <b>adjacent sites</b> See Schedule of Variables (B12) Fixed:..... Value Related:..... Time Related:.....	Item	
	<b>Carried Forward</b>	R	
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	Brought Forward	R	
74	Main noticeboard (B6.5)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
75	Subcontractors' noticeboard (B6.6)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
	<b><u>TEMPORARY SERVICES (B7)</u></b>		
76	Location (B7.1)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
77	Water (B7.2)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
78	Electricity (B7.3)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
79	Telecommunication facilities (B7.4)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
80	Ablution facilities (B7.5)		
	See Schedule of Variables (B12)		
	Fixed:..... Value Related:..... Time Related:.....	Item	
	<b>Carried Forward</b>	R	
	Section No. 1		
	Bill No. 1		
	Preliminaries		
	<b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward		R	
<b><u>PRIME COST AMOUNTS (B8)</u></b>			
81	<p>Responsibility for prime cost amounts (B8.1)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
<b><u>ATTENDANCE ON NOMINATED SUBCONTRACTORS (B9)</u></b>			
82	<p>General attendance (B9.1)</p> <p>In addition to the provisions of clause B9.1, the <b>Contractor</b> shall, at his own expense, provide the following additional general attendance:</p> <p>Make good after Nominated Subcontractors</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
83	<p>Special attendance (B9.2)</p> <p>See Schedule of Variables (B12)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
84	<p>Commissioning - fuel, water and electricity (B9.3)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
<b><u>FINANCIAL ASPECTS (B10)</u></b>			
85	<p>Statutory taxes, duties and levies (B10.1)</p> <p>In addition to the provisions of clause B10.1, all individual amounts in these bills of quantities exclude Value Added Tax (VAT) VAT is to be calculated as a lump sum and added to the total of all values in the Final Summary under the item provided for VAT</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
<b>Carried Forward</b>		R	
<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries</p> <p><b>Construction of Lugangeni Feedlot Phase 01</b></p>			

	Brought Forward	R	
86	Payment of preliminaries (B10.2)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
87	Adjustment of preliminaries (B10.3)  Notwithstanding the provisions of sub-clause B10.3.1 ( <b>Option A</b> ) and for the purpose of adjusting the Time Related amount, only revision of the date for practical completion granted by the <b>Project Manager</b> for variations, omissions, additions and substitutions referred to in sub-clauses A29.2 and A29.3 of the Principal Building Agreement, shall be taken into account  As an allowance, the first ten (10) working days of the construction period is regarded as an administration period and shall be deducted from both the initial and the revised construction periods for calculation purposes  Fixed:..... Value Related:..... Time Related:.....	Item	
88	Payment certificate cash flow (B10.4)  Fixed:..... Value Related:..... Time Related:.....	Item	
	<b><u>GENERAL (B11)</u></b>		
89	Protection of the Works (B11.1)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
90	Protection/isolation of existing/sectionally occupied Works (B11.2)  See Schedule of Variables (B12)  Fixed:..... Value Related:..... Time Related:.....	Item	
	<b>Carried Forward</b>	R	
	Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

	Brought Forward	R	
91	Security of the works (B11.3) Fixed:..... Value Related:..... Time Related:.....	Item	
92	Notice before covering work (B11.4) Fixed:..... Value Related:..... Time Related:.....	Item	
93	Disturbance (B11.5) See Schedule of Variables (B12) Fixed:..... Value Related:..... Time Related:.....	Item	
94	Environmental disturbance (B11.6) See Schedule of Variables (B12) Fixed:..... Value Related:..... Time Related:.....	Item	
95	Works cleaning and clearing (B11.7) Fixed:..... Value Related:..... Time Related:.....	Item	
96	Vermin (B11.8) Fixed:..... Value Related:..... Time Related:.....	Item	
97	Overhand work (B11.9) Fixed:..... Value Related:..... Time Related:.....	Item	
98	Instruction manuals and guarantees (B11.10) Fixed:..... Value Related:..... Time Related:.....	Item	
	Carried Forward	R	
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>			



	Brought Forward	R	
99	As built information (B11.11) Fixed:..... Value Related:..... Time Related:.....	Item	
100	Tenant installations (B11.12) Fixed:..... Value Related:..... Time Related:.....	Item	
	<b><u>SCHEDULE OF VARIABLES (B12)</u></b>		
	<b><u>PRE-TENDER INFORMATION</u></b>		
101	Pre-tender information (B12.1) Fixed:..... Value Related:..... Time Related:.....	Item	
	12.1.1 <b>Firm bills of quantities</b>		
	[2.2] The quantities are provisional: <b>No</b>		
	12.1.2 <b>Availability of construction documentation</b>		
	[2.3] Construction documentation is complete: <b>Yes</b>		
	12.1.3 <b>Interests of agents</b>		
	[2.4] <b>The agents have no interest in this project apart from their professional interest</b>		
	12.1.4 <b>Defined Works area</b>		
	[3.1] As indicated on the drawings and at the site inspection meeting		
	12.1.5 <b>Geotechnical investigation</b>		
	[3.2] <b>The Geotechnical report is available</b>		
	<b>Carried Forward</b>	R	
	Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward		R
12.1.6 Existing premises occupied		
[3.4] No		
12.1.7 Previous work - dimensional accuracy		
[3.5] .....		
.....		
.....		
12.1.8 Previous work - defects		
[3.6] .....		
.....		
.....		
Not applicable.		
12.1.9 Services - known		
[3.7] .....		
.....		
.....		
12.1.10 Protection of trees		
[3.9] .....		
.....		
.....		
Carried Forward		R
Section No. 1		
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Construction of Lugangeni Feedlot Phase 01		

Brought Forward		R
12.1.11	<b>Inspection of adjoining properties</b>	
[3.11]	.....	
	.....	
	.....	
12.1.12	<b>Enclosure of the Works</b>	
[6.2]	.....	
	.....	
	.....	
12.1.13	<b>Offices</b>	
[6.4.3]		
12.1.14	<b>Main notice board</b>	
[6.5]		
12.1.15	<b>Subcontractors notice board</b>	
[6.6]	A noticeboard is required:	
	<b>No</b>	
12.1.16	<b>Water</b>	
[7.2]	Option A (by <b>contractor</b> )	<b>Yes</b>
	Option B (by <b>employer</b> - free of charge)	<b>No</b>
	Option C (by <b>employer</b> - metered)	<b>No</b>
Carried Forward		R
Section No. 1		
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<b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward			R
12.1.17	<b>Electricity</b>		
[7.3]	Option A (by <b>contractor</b> )	<b>Yes</b>	
	Option B (by <b>employer</b> - free of charge)	<b>No</b>	
	Option C (by <b>employer</b> - metered)	<b>No</b>	
12.1.18	<b>Telecommunications</b>		
[7.4]	Telephone	<b>Yes</b>	
	Facsimile	<b>No</b>	
	E-mail	<b>No</b>	
12.1.19	<b>Ablution facilities</b>		
[7.5]	Option A (by <b>contractor</b> )	<b>Yes</b>	
	Option B (by <b>employer</b> )	<b>No</b>	
12.1.20	<b>Protection of existing/sectionally occupied works</b>		
[11.2]	Protection is required: <b>Yes</b>		
12.1.21	<b>Special attendance</b>		
[9.2]	Subcontractor (1) details:		
	.....		
	.....		
	.....		
12.1.22	<b>Protection of the works</b>		
[11.1]	The protection of existing services-Yes		
Carried Forward			R
Section No. 1			
Bill No. 1			
Preliminaries			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

	Brought Forward	R
12.1.23 <b>Disturbance</b>		
[11.5] .....		
.....		
.....		
<i><b>Disturbance level should be regulated in terms of SANS 10103 2003: The measurement and rating of environmental noise with respect to land use, health annoyance and speech communication: Table 2: Acceptable rating levels for noise in districts</b></i>		
12.1.24 <b>Environmental disturbance</b>		
[11.6] .....		
.....		
.....		
<b><u>POST-TENDER INFORMATION</u></b>		
102      Post-tender information (B12.2)		
Fixed:..... Value Related:..... Time Related:.....		Item
12.2.1 <b>Payment of preliminaries</b>		
[10.2]      Option A (prorated) <b>Yes</b> Option B (calculated)      Yes/No		
12.2.2 <b>Adjustment of preliminaries</b>		
[10.3]      Option A (three categories) <b>Yes</b> Option B (detailed breakdown)      Yes/No		
	<b>Carried Forward</b>	R
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward

R

## 12.2.3 Additional agreed preliminaries items:

.....

.....

.....

**Not applicable****SECTION C: SPECIFIC PRELIMINARIES**

103 Documentation (C3)

Fixed:..... Value Related:..... Time  
Related:.....

Item

104 General Preambles (C4)

Fixed:..... Value Related:..... Time  
Related:.....

Item

105 Drawings issued with tender documents (C5)

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

Should any part of the drawings not be clearly intelligible to the Tenderer, he shall, before submitting his tender, obtain clarification in writing from the **Project Manager**

Fixed:..... Value Related:..... Time  
Related:.....

Item

Carried Forward

R

Section No. 1

Bill No. 1

Preliminaries

**Construction of Lugangeni Feedlot Phase 01**

	<b>Brought Forward</b>	R	
106	<p>Pricing and rates (C6)</p> <p>All prices or rates inserted in these bills of quantities shall, unless otherwise stated, include for materials, duty, taxes other than Value Added Tax (VAT), making, conveyance and delivery, unloading, storing, unpacking, hoisting, labour setting, fitting and fixing in position, cutting and waste, patterns, models and templates, plant, temporary works, return of packings, establishment charges, profit and all other obligations arising from the Principal Building Agreement</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
107	<p>Submission of priced bills of quantities <b>(Also see A15)</b> (C7)</p> <p>Notwithstanding the provisions of sub-clause A15.1.1 of the Principal Building Agreement, <b>it is an express requirement</b> that the Tenderer shall submit, together with his tender, his priced bills of quantities with all items properly priced, extended and cast in ink</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
108	<p>Commencement and completion (C8)</p> <p>Notwithstanding compliance with the provisions of sub-clauses A15.1.1, A15.1.2 and A15.2.1 of the Principal Building Agreement, which may result in a period of less than ten (10) working days for administrative functions from the date of acceptance of the Tender until the date of handing over the site, the <b>Contractor</b> shall have no right to demand the handing over of the site before ten (10) working days from the date of acceptance of the Tender has elapsed</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
109	<p>Detail drawings (C9)</p> <p>Upon receipt of detail drawings for any work, the <b>Contractor</b> shall, before putting that work in hand, ascertain that the dimensions given on the detail drawings correspond with the dimensions of any work already built. In the event of the detail drawings not agreeing with work already built, the drawings shall immediately be returned for alteration, as no claim for extra work in this regard will be entertained</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
	<b>Carried Forward</b>	R	
	<p>Section No. 1  Bill No. 1  Preliminaries  <b>Construction of Lugangeni Feedlot Phase 01</b></p>		

	<b>Brought Forward</b>	R
110	Ordering of materials (C10)  The <b>Contractor</b> shall place orders timeously for materials or special articles that are required. Should these bills of quantities be used for ordering materials, this shall be entirely at the <b>Contractor's</b> risk  Fixed:..... Value Related:..... Time Related:.....	Item
111	Jobbing (C11)  Each trade shall perform all necessary jobbing and attendance and shall make good after all other trades  Fixed:..... Value Related:..... Time Related:.....	Item
112	Damage to existing buildings and/or structures, etc. (C12)  Any damage whatsoever to the existing buildings and/or structures, etc. from building operations during the construction period shall be rectified to the approval of the <b>Project Manager</b> at the <b>Contractor's</b> expense  Fixed:..... Value Related:..... Time Related:.....	Item
	<b>Carried Forward</b>	R
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>		



	Brought Forward	R
113	<p><u>EMPLOYER'S MANAGED DIRECT CONTRACTORS (C13)</u></p> <p><u>Requirements to be met by the managed direct contractors (13.1)</u></p> <p>The Contractor's attention is drawn to the fact that the Employer shall enter into managed direct agreements with other contractors. Although these Managed Direct Contractors shall enter into separate individual agreement with the Employer, the following stipulations shall apply:</p> <p>a) The Managed Direct Contractor shall clear away all rubbish, debris and excess materials resulting from the execution of the Managed Direct Contractor's portion of the Works as the Works proceed and upon Practical Completion of the Managed Direct Contractor's works to the reasonable satisfaction of the Principal Agent/Project Manager</p> <p>b) The Managed Direct Contractor shall insure and shall remain insured in respect of Public Liability, Works Risks, Common Law Liability and Workmen's Compensation or any other statute in force for the time being, in respect of injuries to persons and damage to property, until the Certificate of Practical Completion has been issued. The value of the insurance must be as stated in the Managed Direct Contractor's agreement. The Public Liability, Common Law Liability or other policies shall contain clauses indemnify the Client against risks arising out of the execution of the Managed Direct Contractor's Works</p> <p>c) The Managed Direct Contractor shall provide the Principal Agent/Project Manager with proof in the form of written statement from the insurance company concerned that the insurances required by the respective agreements have been effected</p> <p>d) The Managed Direct Contractor shall indemnify the Client against the same obligations in respect of the managed direct agreement.</p> <p>e) The Managed Direct Contractor shall indemnify the Client in respect of any negligence by the Managed Direct Contractor, his workmen and or his agents</p> <p>Fixed ..... Value Related .....Time Related .....</p>	Item
114	<p>Local subcontractors (C14)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item
	Carried Forward	R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries</p> <p><b>Construction of Lugangeni Feedlot Phase 01</b></p>	

	Brought Forward	R
115	<p>Empowerment of HDE and SME entities (C15)</p> <p>Fixed:..... Value Related:..... Time Related:.....</p> <p><b>EMPLOYER'S MANAGED DIRECT CONTRACTORS (C16)</b></p> <p><i>Compiler note: Delete above heading and following five items in whole if not applicable</i></p>	Item
116	<p>Requirements to be met by the managed direct contractors (C16.1)</p> <p>The Contractor's attention is drawn to the fact that the Employer will enter into managed direct agreements with other contractors. Although these Managed Direct Contractors will enter into an agreement with the Employer the following stipulations will apply:</p> <p>(a) The Managed Direct Contractor shall clear away all rubbish and excess material resulting from the execution of the Managed Direct Contractor's portion of the Works as the Works proceed and upon Practical Completion of the Managed Direct Contractor's works to the reasonable satisfaction of the Management Contractor</p> <p>(b) The Managed Direct Contractor shall insure and shall remain insured in respect of public liability, works risks, common law liability and Workmen's Compensation or any other statute in force for the time being, in respect of injuries to persons and damage to property, until the Certificate of Practical Completion has been issued. The value of the insurance must be as stated in the Managed Direct Contractor's agreement. The public liability, common law liability or other policies shall contain clauses indemnifying the Management Contractor against risks arising out of the execution of the Managed Direct Contractor's works</p> <p>(c) The Management Contractor and Managed Direct Contractor shall provide one another with proof in the form of a written statement from the insurance company concerned that the insurances required by the respective agreements have been effected</p> <p>(d) The Managed Direct Contractor shall indemnify the Management Contractor against the same obligations in respect of the managed direct agreement, as the Management Contractor is liable for in respect of the management agreement</p> <p>(e) The Managed Direct Contractor shall indemnify the Management Contractor in respect of any negligence by the Managed Direct</p>	
	Carried Forward	R
	<p>Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b></p>	

Brought Forward	R	
<p>Contractor, his workmen and or agents of the Managed Direct Contractor</p> <p>(f) The Management Contractor shall ensure that the Managed Direct Contractor carries out and completes the works under the managed direct contract to the Employer's satisfaction</p> <p>(g) The Management Contractor must immediately notify the Employer in writing, when the Managed Direct Contractor is in default, does not keep up with the building programme or revised building programme or does not proceed with due diligence</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item	
<p>Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b></p>	R	

	Brought Forward	R
117	<p>Attendance on Managed Direct Contractors (C16.2)</p> <p>General Attendance shall, without in any way limiting the meaning and interpretation thereof, include the following services, to be rendered by the Management Contractor to the Managed Direct Contractor:</p> <p>(a) Access to the site and to places where the work is to be carried out, for the workmen, the delivery of goods for the execution, the use of ordinary scaffolding and the use of any temporary cranes and personnel hoists erected by the Management Contractor, for his own and his Subcontractors' use</p> <p>(b) The provision of water and lighting and single phase electrical power to a position within 50 meters of the place where the works is to be carried out, but excluding water, fuel and power for commissioning of any installation</p> <p>(c) The provision of an area for the Managed Direct Contractor to establish temporary office accommodation and workshops and for the storage of plant and materials</p> <p>(d) The use of erected scaffolding belonging to the Management Contractor, in common with others having the like right, whilst it so remains erected upon the site</p> <p>(e) The use of ablution facilities and the like, where provided</p> <p>(f) The use of the site telephone and facsimile machine, where provided, subject to the payment by the Managed Direct Contractor for usage thereof</p> <p>(g) Making good after Managed Direct Contractors</p> <p>(h) Co-ordinating and programming the Works including that of the Managed Direct Contractor and showing how the Managed Direct Contractor's work impacts on the critical path</p> <p>(i) Protect the Managed Direct Contractor's works from damage including casing, boarding and covers</p> <p>Note: Items are provided elsewhere for pricing attendance on Managed Direct Contractors</p> <p>Fixed:..... Value Related:..... Time Related:.....</p>	Item
	Carried Forward	R
<p>Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b></p>		

	Brought Forward	R	
118	Adjustment of attendance on Managed Direct Contractors (C16.3)  The schedule rates providing for attendance on Managed Direct Contractors, will be adjusted only if the scope of their work has changed  Fixed:..... Value Related:..... Time Related:.....	Item	
119	Management Contract (C16.4)  <i>Not applicable</i>  Fixed:..... Value Related:..... Time Related:.....	Item	
120	Managed Direct Contract (C16.5)  Fixed:..... Value Related:..... Time Related:.....	Item	
Carried to Final Summary		R	
Section No. 1 Bill No. 1 Preliminaries <b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 1</u></b>			
<b><u>FOUNDATIONS (PROVISIONAL)</u></b>			
<b><u>PREAMBLES</u></b>			
For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>Nature of ground</u>			
A soils investigation has been carried out on the site and the report is available from the principal agent. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"			
“Soft rock” shall mean hard material, the removal of which warrants the use of pneumatic tools and includes hard shale, ferricite, compact oukclip and material of similar hardness			
“Earth” shall mean all ground other than that classified as “hard rock” or “soft rock” and shall include made-up ground and any loose stones, pebbles or pieces of concrete not exceeding 0,03m3 in volume			
<b>Carried Forward</b>		R	
Section No. 2 Bill No. 1 Foundations (Provisional) <b>Construction of Lugangeni Feedlot Phase 01</b>			

<p style="text-align: center;"><b>Brought Forward</b></p> <p><u>Subterranean water</u></p> <p>No subterranean water is expected</p> <p>The water table is expected to vary between approximately 3m and 10m below natural ground level. The removal of subterranean water is given separately</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p><u>Filling and layer work materials</u></p> <p>References such as "G1", "G2", etc and "C1", "C2", etc in descriptions of filling and layer work materials refer to corresponding references in the document "Guidelines for Road Construction Materials. TRH 14 : 1985" compiled by the Committee of State Road Authorities and the properties set out therein for each kind shall be applicable to the respective materials described hereinafter</p> <p>Samples of potential fill material obtained from excavations, trench excavations, etc are to be submitted to and approved by the engineer prior the re-use thereof as "filling"</p> <p>All filling obtained from a commercial source should comply to minimum G5 standard</p> <p>Should any material be found unsuitable and the use thereof be disapproved, such material shall be disposed and approved material must be sourced and imported from an approved commercial source</p> <p>Filling in general shall be compacted to the prescribed percentage Mod AASHTO density</p>	R
<p style="text-align: center;"><b>Carried Forward</b></p> <p>Section No. 2 Bill No. 1 Foundations (Provisional) <b>Construction of Lugangeni Feedlot Phase 01</b></p>	R

Brought Forward			R
<u>Cleaning-up of disturbed areas</u>			
The contractor will be liable to, upon completion, rehabilitate all those areas of the site used for spoiling, mixing of concrete or any other disturbances caused to the site by the contractor by grading the area to follow the adjacent ground contours and afterwards compacted to 80% Mod AASHTO density, all to the full satisfaction of the principal agent			
<b><u>BULK EXCAVATION, FILLING, ETC</u></b>			
<b><u>User Note:</u></b>			
This section is given as an alternative option and in the event of it being exercised the excavation, filling, etc other than bulk is to be given under the later section			
<b><u>Open face excavation in earth over sloping site</u></b>			
1	Open face excavation	m3	73
2	For Columns not exceeding 1.5m deep	m3	19
<b><u>Excavation in earth for Raft Foundation</u></b>			
3	Not exceeding 2m deep	m3	19
<b><u>Extra over all excavations for carting away</u></b>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	12
<b><u>Risk of collapse of excavations</u></b>			
5	Sides of bulk excavations not exceeding 1,5m deep	m2	192
<b><u>Keeping excavations free of water</u></b>			
6	Keeping excavations free of all water other than subterranean water	Item	
Carried Forward			R
Section No. 2 Bill No. 1 Foundations (Provisional) <b>Construction of Lugangeni Feedlot Phase 01</b>			



Brought Forward			R
	<b><u>Earth filling obtained from the excavations (not compacted)</u></b>		
	<b><u>Earth filling obtained from the excavations including haulage approximately 20m from perimeter of excavations (not compacted)</u></b>		
7	In prescribed stock piles on site	m3	18
	<b><u>Earth filling supplied by the contractor (not compacted)</u></b>		
	<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>		
8	Over site	m3	19
	<b><u>Compaction of surfaces</u></b>		
9	Compaction of ground surface under floors etc including scarifying for a depth of 75mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m2	236
	<b><u>EXCAVATIONS, ETC</u></b>		
	<b><u>Excavation in earth not exceeding 2m deep</u></b>		
10	Raft Foundation	m3	36
	<b><u>Risk of collapse of excavations</u></b>		
11	Sides of trench and hole excavations not exceeding 1,5m deep	m2	72
12	Sides of pit excavations not exceeding 1,5m deep	m2	72
	<b><u>Extra over all excavations for carting away</u></b>		
13	Surplus material from excavations and/or stockpiles on site to a dumping site to be located by the contractor	m3	6
Carried Forward			R
Section No. 2 Bill No. 1 Foundations (Provisional) <b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward			R
	<u>Keeping excavations free of water</u>		
14	Keeping excavations free of all water other than subterranean water	Item	
	<b><u>FILLING, ETC</u></b>		
	<u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site, including haulage approximately 100m from the perimeter of the excavations or stock piles, compacted to 95% Mod. AASHTO density</u>		
15	Under floors, steps, pavings, etc	m3	19
16	Backfilling to trenches, holes, etc	m3	6
	<u>Filling of natural gravel material (G5) supplied by the contractor, compacted to 95% Mod AASHTO density</u>		
17	Under floors, steps, pavings etc.	m3	86
	<u>Filling of coarse river sand supplied by the contractor, consolidated</u>		
18	Under floors etc	m3	79
	<u>Compaction of ground surfaces</u>		
19	Compaction of natural or excavated 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	308
	<b><u>WEED KILLERS, INSECTICIDES, ETC</u></b>		
	<u>Soil insecticide in accordance with SANS 5859</u>		
20	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	308
21	To bottoms and sides of trenches etc	m2	69
	<b>Carried Forward</b>		R
	Section No. 2		
	Bill No. 1		
	Foundations (Provisional)		
	<b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward			R
<b><u>TESTS</u></b>			
<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>			
22	"Modified AASHTO Density" test	No	26
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
<u>25MPa/19mm concrete</u>			
23	Strip footings	m3	8
<b><u>TEST CUBES</u></b>			
<u>Concrete strength test cubes</u>			
24	Making and testing a set of three 150 x 150 x 150mm concrete strength test cubes	Sets	10
<b><u>MOVEMENT JOINTS ETC</u></b>			
<u>Expansion joints with 10mm bitumen impregnated softboard between vertical concrete surfaces, including necessary formwork</u>			
25	Not exceeding 300mm high through foundations	m	96
<b><u>REINFORCEMENT</u></b>			
<u>Mild steel reinforcement to structural concrete work</u>			
26	8mm Diameter bars	t	1.00
<u>High tensile steel reinforcement to structural concrete work</u>			
27	10mm Diameter bars	t	1.00
28	12mm Diameter bars	t	1.00
Carried Forward			R
Section No. 2			
Bill No. 1			
Foundations (Provisional)			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward			R
	<u>Fabric reinforcement</u>		
29	Type 193 fabric reinforcement in pit surface beds etc	m2	192
	<b><u>BRICKWORK IN FOUNDATIONS</u></b>		
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar</u>		
30	One brick walls	m2	72
31	375mm brick walls (Retaining Wall)	m2	117
	<b><u>BRICKWORK SUNDRIES</u></b>		
	<u>Joint forming material in movement joints</u>		
32	10mm Bitumen impregnated softboard built in vertically between brick skins	m2	18
	<u>2,5mm Brickwork reinforcement</u>		
33	75mm Wide reinforcement built in horizontally	m	68
34	150mm Wide reinforcement built in horizontally	m	321
	<b><u>FACE BRICKWORK</u></b>		
	<u>"Corobrik Terracotta Travertine" face bricks pointed with recessed horizontal and vertical joints</u>		
35	Extra over brickwork for face brickwork	m2	5
36	Extra over brickwork for face brickwork (Retaining Wall)	m2	36
	<u>"Corobrik Terracotta Travertine" brick-on-edge header course copings, sills, etc pointed with recessed joints on all exposed faces</u>		
37	220mm Wide copings on top of one brick wall	m	12
	<b><u>WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC</u></b>		
	<b>Carried Forward</b>		R
	Section No. 2		
	Bill No. 1		
	Foundations (Provisional)		
	<b>Construction of Lugangeni Feedlot Phase 01</b>		

Brought Forward				R
38	<u>Two part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc</u>			
	10 x 20mm In expansion joints in walls including raking out expansion joint filler as necessary	m	24	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 1				
Foundations (Provisional)				
Construction of Lugangeni Feedlot Phase 01				

<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 2</u></b>			
<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
<b><u>PREAMBLES</u></b>			
For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>Concrete general</u>			
Surface beds cast in panels shall be cast in panels not exceeding 20m <sup>2</sup>			
All reinforced concrete is to be compacted with a mechanical vibrator			
<u>Cost of tests</u>			
The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)			
<u>Formwork</u>			
Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use			
<b>Carried Forward</b>			R
Section No. 2			
Bill No. 2			
Concrete, Formwork and Reinforcement			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward			R
<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself</p> <p>Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described</p> <p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p> <p><u>Fabric reinforcement</u></p> <p>Standard welded steel fabric reinforcement shall be as included in Table 1 of SANS 1024 and shall have 300mm wide laps</p> <p><b><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></b></p> <p><u>25MPa/19mm concrete</u></p>			
1	Floor Slabs	m3	44
2	Vertical Slabs	m3	11
3	Column Stub (450 X 450 X 450mm)	m3	5
4	Drinking Troughs R1,328	m3	2
5	Steps	m3	5
<b><u>TEST CUBES</u></b>			
Carried Forward			R
<p>Section No. 2</p> <p>Bill No. 2</p> <p>Concrete, Formwork and Reinforcement</p> <p><b>Construction of Lugangeni Feedlot Phase 01</b></p>			

R

**Brought Forward**Concrete strength test cubes

6	Making and testing a set of three 150 x 150 x 150mm concrete strength test cubes	Sets	10
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**CONCRETE SUNDRIES**Finishing top surfaces of concrete smooth with a wood float

7	Floor Slabs	m2	236
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Mesh reinforcement

8	Type 193 fabric reinforcement in vertical concrete surface beds, etc	m2	36
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**FORMWORK**

**NOTE:** All items in this section shall be deemed to fall into Work Group No 111 for Haylett formula purposes

**ROUGH FORMWORK (DEGREE OF ACCURACY II)**Rough formwork to sides

9	Pit sides vertically (Dipping Tank)	m2	48
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Rough formwork to soffits

10	Slabs exceeding 250mm and not exceeding 500mm thick propped up exceeding 5m and not exceeding 6.5m high	m2	38
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Boxing in rough formwork to form

11	450 x 450 x 300mm Deep sump in top of concrete	No	6
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**Carried Forward to Summary of Section No. 2**

R

Section No. 2

Bill No. 2

Concrete, Formwork and Reinforcement

**Construction of Lugangeni Feedlot Phase 01**



<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 3</u></b>			
<b><u>MASONRY</u></b>			
<b><u>PREAMBLES</u></b>			
For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>Sizes in descriptions</u>			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
<u>Brickwork</u>			
Brickwork shall be carried up in a uniform manner, no part being raised more than 1.2m above adjoining work			
<u>Face bricks</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
All cutting to face bricks must be done by cutting saw and prices to include for the use of mechanical cutting saws			
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<b>Carried Forward</b>		R	
Section No. 2 Bill No. 3 Masonry <b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward			R
<u>Precast concrete paving</u>			
Paving is to be laid in accordance with SABS 1200 MJ, SABS 1058 and the Concrete Masonry Association's specifications			
Paving is to be laid to herringbone pattern on and including 25mm (thickness after final compaction) clean river sand (preparation of ground or filling elsewhere)			
Clean sand is to be swept into joints between roadstones			
<b><u>SUPERSTRUCTURE</u></b>			
1	Extra over brickwork for face brickwork	m2	48
2	Extra over brickwork for brick-on-edge header course lintels pointed on all exposed faces	m	40
3	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	4
<b><u>CLADDING</u></b>			
<u>Himalayan Cedar Bamboo-PVC composite Apex Fascia Boards with 50mm gaps fixed to steel columns according to manufacturer's specifications by specialist or similarly approved.</u>			
4	<u>2200 X 150 X 12mm Himalayan Cedar Bamboo or similarly approved</u>	m2	107
<b>Carried Forward to Summary of Section No. 2</b>			R
Section No. 2			
Bill No. 3			
Masonry			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Item No</u>		<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Waterproofing</u>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<u>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape</u>			
1	Under surface beds	m2	236	
	<b><u>WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC</u></b>			
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>			
2	5 x 30mm In saw-cut joints in floors	m	24	
	<u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc</u>			
3	10 x 20mm In expansion joints in floors, including raking out expansion joint filler as necessary	m	48	
	<b>Carried Forward to Summary of Section No. 2</b>			
	Section No. 2			
	Bill No. 4			
	Waterproofing			
	<b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 5</u></b>			
<b><u>ROOF COVERINGS ETC</u></b>			
<b><u>(CPAP WORK GROUP NO. 124 UNLESS OTHERWISE STATED)</u></b>			
<b><u>PREAMBLES</u></b>			
For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>Profiled metal sheeting and accessories</u>			
Roof sheets shall be fixed to every purlin by means of patented KL700 clips and Class 3 fasteners. Flashings shall be fixed by way of patented S10 brackets (sliding brackets where roof sheets are 30m or longer), in strict accordance with the manufacturer's specifications by an approved sub-contractor. A written and approved five-year guarantee of water-tightness shall be issued after approval of the roofs by the manufacturer			
Prices to include for all cutting and waste and relevant fixing material, unless otherwise described			
Sheet metal flashings shall have minimum 100mm laps and linings to valleys, etc minimum 225mm laps			
All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable			
<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
<b>Carried Forward</b>			
Section No. 2 Bill No. 5 Roof Coverings <b>Construction of Lugangeni Feedlot Phase 01</b>			
		R	

Brought Forward			R
<u>Safintra, 0.50mm thick SAFLOK 410 Colorplus</u> <u>AZ150 interlocking roof sheeting fixed to 127 x</u> <u>63.5 x 2mm Steel C-Section purlins at 900mm,</u> <u>and 25 x 146 x 31 UB steel Rafter at 5000mm</u>			
1	Roof covering with pitch not exceeding 22 degrees pitch (Dipping)	m2	72
2	Roof covering with pitch not exceeding 8 degrees pitch (Cattle Kraal)	m2	216
<b>Carried Forward to Summary of Section No. 2</b>  Section No. 2 Bill No. 5 Roof Coverings <b>Construction of Lugangeni Feedlot Phase 01</b>			R

[illegible]

**Brought Forward**

R

**DESCRIPTIONS**

The term "planted on" shall mean the nailing of one timber member to another

The term "screwed on" shall mean the countersunk screwing of one timber member to another

The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screws sunk and pelleted

The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete

The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screws sunk and pelleted

Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing

Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting

Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.

Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.

**PREAMBLES**

For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"

**Carried Forward**

R

Section No. 2

Bill No. 6

Carpentry and Joinery

**Construction of Lugangeni Feedlot Phase 01**

<p style="text-align: center;"><b>Brought Forward</b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at maximum 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <p><u>Decorative thermosetting plastic laminate covering</u></p> <p>Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish</p> <p>Decorative laminate finishes shall be glued under pressure</p> <p><u>Hardwoods</u></p> <p>All hardwoods shall be specially selected, well seasoned, free from sapwood and kiln dried. Meranti shall be red or medium brown meranti, even in grain and colour</p> <p><u>Sealing of all abutments</u></p> <p>All cupboards, counter tops, shelves, etc. abutting walls, tiled surfaces, etc. to be sealed watertight with an approved silicon sealant along all joints</p> <p><b><u>PLATE NAILED TIMBER ROOF TRUSS CONSTRUCTION ETC</u></b></p> <p style="text-align: center;"><b>Carried Forward</b></p> <p>Section No. 2 Bill No. 6 Carpentry and Joinery <b>Construction of Lugangeni Feedlot Phase 01</b></p>	<p style="text-align: center;">R</p> <p style="text-align: center;">R</p>
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<p style="text-align: center;"><b>Brought Forward</b></p> <p><u>Supplementary preambles for plate nailed timber roof construction</u></p> <p>The design, manufacturing and installation of the complete prefabricated timber roof construction to be executed by an approved firm of specialists, under a written guarantee, which shall lodge the design with the principal agent for approval before the work commence</p> <p>All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction</p> <p>Trusses should be handled and erected in accordance with SANS 10243</p> <p>Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SANS Specification No 563 or as defined in SANS Specification No 1460</p> <p>Bolts shall be in accordance with BS 4190 or SANS 135</p> <p>Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"</p> <p>Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel</p> <p>The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m<sup>2</sup> commercial class hot dipped galvanising as per SANS 934 before stamping</p>	R
<p style="text-align: center;"><b>Carried Forward</b></p> <p>Section No. 2 Bill No. 6 Carpentry and Joinery <b>Construction of Lugangeni Feedlot Phase 01</b></p>	R

<p style="text-align: center;"><b>Brought Forward</b></p> <p>All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report</p> <p>Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint</p> <p>Trusses shall be constructed in jigs specially designed to ensure the correct profile, overhangs and cambers</p> <p>All trusses shall be designed by a registered Professional Engineer in accordance with SANS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")</p> <p>It will be expected from the contractor to timeously prepare, submit and obtain the necessary approvals from the principal agent in respect of the required shop drawings, design and erection guarantee certificates as specified</p> <p>All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the engineer</p> <p>All purlins must be properly nailed to roof trusses and thereafter secured to rafters with 2mm thick galvanised wire ties wrapped around rafter with ends tied together and prices for trusses to include therefor</p>	R
<p style="text-align: center;"><b>Carried Forward</b></p> <p>Section No. 2 Bill No. 6 Carpentry and Joinery <b>Construction of Lugangeni Feedlot Phase 01</b></p>	R

<b>Brought Forward</b>		R
<p>Tendered rates to include for the design and manufacturing of the complete timber roof construction (including all wall plates, purlins, battens, bracing, connections, etc as may be required), transport, loading and unloading, storing under cover and protecting from the weather, hoisting and fixing in position all elements and necessary supervision</p> <p>Unless otherwise described, the following specifications will apply:</p> <p>All trusses to be with a 20° pitch at approximately 1100mm centres. Trusses shall be designed for a live load of 0.50 kN/m<sup>2</sup> and the dead load consists of 0.5mm thick "Klip-Tite" galvanised troughed sheet steel roof covering on 50 x 76mm purlins at maximum 1200mm centres, 6mm nutec-cement nailed-up ceilings on 38 x 38mm bracing at 400mm centres and 100mm thick fibre insulation blanket laid on top of ceilings</p> <p>Dimensions in descriptions of trusses are nominal and actual measurements are to be obtained from the architect/engineer and/or taken on site before design or fabrication commences</p> <p><u>Allow for the preparation and submission of the following documents in respect of all buildings</u></p>		
1	Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication	Item
2	Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc.	Item
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent	Item
<b>Carried Forward</b>		R
<p>Section No. 2 Bill No. 6 Carpentry and Joinery <b>Construction of Lugangeni Feedlot Phase 01</b></p>		

Brought Forward			R
<u>The following in pre-fabricated roof trusses manufactured from "CCA Tanalith" pre-treated wrought softwood</u>			
4	Roof construction to double pitched roof with two hipped ends for Dipping shelter (approximately 38m2 roof covering area measured on slope) supplied and erected complete in position including all necessary bracing, gangboarding, purlins, splayed eaves purlins, wall plates, trusses to be exposed and treated. etc	No	1
<u>Wrought laminated SA Pine</u>			
<b><u>Timber Poles</u></b>			
5	H5 CCA 100mm diameter treated timber cross beams	m	1 608
6	H5 CCA 150mm diameter treated timber 2000mm high	No	248
<b><u>JOINERY SUNDRIES</u></b>			
<u>Himalayan Cedar Bamboo-PVC Composite Apex fascia boards with 50mm gaps fixed to steel.</u>			
7	2200 x 2000 x 150mm high, 12mm Thick Himalayan Cedar Bamboo pvc composite Apex Fascia Board with 50mm gaps	m2	56
<b>Carried Forward to Summary of Section No. 2</b>			R
Section No. 2			
Bill No. 6			
Carpentry and Joinery			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 7</u></b>			
<b><u>STRUCTURAL STEELWORK</u></b>			
<b><u>Work group No 134 for JBCC CPAP purposes</u></b>			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<b><u>Descriptions</u></b>			
Descriptions of bolts shall be deemed to include nuts and washers			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete. Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork.			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.			
Tenderers are advised to study the Model Preambles for Trades (1999 Edition) before pricing this bill			
<b><u>NOTE:</u></b> <i>Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 134 for JBCC CPAP purposes</i>			
<b><u>STEEL COLUMNS AND BEAMS</u></b>			
<b>Carried Forward</b>			
Section No. 2 Bill No. 7 Structural Steelwork <b>Construction of Lugangeni Feedlot Phase 01</b>			

R

Brought Forward			R
<u>Welded columns and beams, etc in framing with flat section base, top, bearer and connection plates bolted to concrete</u>			
1	IPE160 160 x 82mm x 15.8kg/m Hot rolled universal beams I-Section	t	1.34
2	254 x 145mm x 31.3kg/m Hot rolled universal beams	t	4.76
<u>Bolts to columns, beams, etc</u>			
3	16mm Diameter high tensile bolts	No	76
4	20mm Diameter high tensile bolts	No	48
<b><u>PURLINS, GIRTS, BRACING, ETC</u></b>			
<u>Purlins and girts bolted to steel</u>			
5	175 x 75 x 20mm x 6.8kg/m Cold Lipped C-section members	t	1.00
6	125 x 65 x 2mm x 4.42kgm Cold Lipped C-section members	t	1.04
7	152 x 152mm x 23kg/m Hot rolled universal channels	t	1.00
8	120 x 120 x 6,0mm x 20.51kg/m Hot rolled square section members	t	1.00
<b>Carried Forward to Summary of Section No. 2</b>			R
Section No. 2			
Bill No. 7			
Structural Steelwork			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 8</u></b>			
<b><u>METALWORK</u></b>			
<b><u>PREAMBLES</u></b>			
For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>Descriptions of bolts, anchors, etc</u>			
Descriptions of bolts shall be deemed to include nuts and washers			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres			
<u>Preparation of metal surfaces</u>			
All surfaces of steelwork cleaned and prepared by wire brushing in accordance with SANS 10064 and all surfaces shall be painted with approved factory etch primer to a minimum dry film thickness of 30 micrometres before leaving the workshop of the manufacturer. All scratches, chips or blemishes to be made good on site after erection			
<b>Carried Forward</b>		R	
Section No. 2 Bill No. 8 Metalwork <b>Construction of Lugangeni Feedlot Phase 01</b>			

<p style="text-align: center;"><b>Brought Forward</b></p> <p><u>Door frames</u></p> <p>Unless otherwise described, all frames shall be single rebated and suitable for 40mm thick doors, factory fitted with three washered butt hinges for each door and factory primed complying with SANS Specification 909. Striking plates to be of the chromium plated type</p> <p><u>Steel windows</u></p> <p>Burglar proofing to be type B20 burglar bars, unless otherwise described. All furniture to be chromium plated</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria</p> <p>Glazing shall comply with SAGGA regulations. Glass shall be type as shown on the window schedules and/or drawings appended to these bills of quantities and/or as described in the headings to window descriptions. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings</p> <p>Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed</p> <p>For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work:</p> <ol style="list-style-type: none"> <li>1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product</li> <li>2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</li> </ol> <p style="text-align: center;"><b>Carried Forward</b></p> <p>Section No. 2 Bill No. 8 Metalwork <b>Construction of Lugangeni Feedlot Phase 01</b></p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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Brought Forward		R	
3	A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process		
4	A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked		
5	A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years		
<u>Sealing of all abutments</u>			
All windows, frames, etc. abutting face brick walls, etc. to be sealed watertight with an approved silicone sealant along all joints			
<b><u>SUNDRY STEELWORK</u></b>			
<b><u>SECURITY GATES:</u></b>			
<b><u>Steel security gates, screens, etc. installed complete including all subframes, bolts, expansion bolts, etc.:</u></b>			
1	3890 X 2030 mm hinges steel gate (G02 (Double Swing)) including Ironmongery by specialist or similar approved	No	2
2	4080 X 2030 mm hinges steel gate (G03 (Double Swing)) including ironmongery by specialist or similar approved	No	1
3	1500 X 1730 mm hinges steel gate (G05 (Single Swing)) including ironmongery by specialist or similar approved	No	1
Carried Forward		R	
Section No. 2 Bill No. 8 Metalwork <b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward				R
<b><u>GALVANISED SQUARE STEEL TUBE FRAMES</u></b>				
4	50 x 50mm galvanised square steel tube frame to be done by specialist according to the manufacture's details	m2	120	
<b>Carried Forward to Summary of Section No. 2</b>				R
Section No. 2				
Bill No. 8				
Metalwork				
<b>Construction of Lugangeni Feedlot Phase 01</b>				

<b><u>Bill No</u></b>	<b><u>SECTION SUMMARY - Building</u></b>	<b><u>Page No</u></b>	<b><u>Amount</u></b>
1	Foundations (Provisional)	45	
2	Concrete, Formwork and Reinforcement	48	
3	Masonry	50	
4	Waterproofing	51	
5	Roof Coverings	53	
6	Carpentry and Joinery	60	
7	Structural Steelwork	62	
8	Metalwork	66	
<b>Carried to Final Summary</b>			R
Section No. 2			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Item No</u>		<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
	<b><u>SECTION 3</u></b>			
	<b><u>BILL NO. 1</u></b>			
	<b><u>GENERAL SITE WORKS</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Supplementary preambles and full descriptions of materials, items, work, etc. applicable to this Section</u>			
	The Contractor is referred to the previous section(s) for supplementary preambles and full descriptions of materials, items, work, etc. which shall be regarded to be equally applicable for work described in this section, unless specifically otherwise described			
	<b><u>SITE CLEARANCE</u></b>			
	<b><u>Site clearance, trees, 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	623	
	<u>Taking out and removing, grubbing up roots and filling in holes</u>			
2	Tree or stump exceeding 200mm and not exceeding 500mm girth	No	1	
3	Tree or stump exceeding 500mm and not exceeding 1000mm girth	No	1	
	<b>Carried Forward</b>		R	
	Section No. 3 Bill No. 1 General Site Work (Provisional) <b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward			R
4	Tree or stump exceeding 1000mm and not exceeding 1500mm girth	No	1
	<u>Extra over bulk excavations in earth for excavation in</u>		
5	Soft rock	m3	5
6	Hard rock	m3	5
	<u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site</u>		
7	G9 gravel-soil material under parking areas etc, compacted to 93% Mod AASHTO density	m3	38
	<u>Filling supplied by the contractor under parking areas, roadways, etc</u>		
8	G7 gravel-soil material under parking areas etc, compacted to 93% Mod AASHTO density	m3	29
9	Subbase course of G5 natural gravel material, compacted to 93% Mod AASHTO density	m3	9
10	Base course of G5 natural gravel material, compacted to 95% Mod AASHTO density	m3	8
11	Extra over subbase or base course of natural gravel material for stabilisation with 3% OPC cement	m3	38
<b>Carried Forward to Summary of Section No. 3</b>			R
Section No. 3			
Bill No. 1			
General Site Work (Provisional)			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Item No</u>		<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
	<b><u>SECTION NO. 3</u></b>			
	<b><u>BILL NO. 2</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles see "Construction Specifications - General Specification (PW371-A)" and "Construction Specifications - Particular Specification (PW371-B)"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Supplementary preambles and full descriptions of materials, items, work, etc. applicable to this Section</u>			
	The Contractor is referred to the previous section(s) for supplementary preambles and full descriptions of materials, items, work, etc. which shall be regarded to be equally applicable for work described in this section, unless specifically otherwise described			
	<u>Aprons</u>			
	Aprons to be cast into alternate sections of 1.5m to form construction joint between panels			
	<b><u>APRONS, RAMPS, STEPS, ETC</u></b>			
	<b><u>APRON</u></b>			
	<b><u>Aprons around buildings</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	204	
	<b>Carried Forward</b>		R	
	Section No. 3 Bill No. 2 Apron Ramps,Steps ETC <b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward			R
	<u>20MPa/19mm unreinforced concrete</u>		
2	Aprons cast in panels	m3	16
3	Extra over concrete aprons for thickening size 150mm deep, 200mm top and tapering to 100mm at bottom including all excavation to 100mm, backfilling, etc.	m	58
	<u>Finishing top surfaces of concrete smooth with a wood trowel</u>		
4	Aprons, etc to falls	m2	112
	<u>Rough formwork to sides</u>		
5	Edges of aprons not exceeding 300mm high or wide	m	56
<b><u>RAMPS</u></b>			
<b><u>Ramps to buildings</u></b>			
	<u>Excavation in earth or compacted platforms not exceeding 2m deep</u>		
6	Trenches	m3	10
	<u>Risk of collapse of excavations</u>		
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	76
	<u>Compaction of surfaces</u>		
8	Compaction of ground surface under ramps, 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	74
	<u>Prescribed density tests on filling</u>		
9	"Modified AASHTO Density" test	No	8
Carried Forward			R
Section No. 3 Bill No. 2 Apron Ramps, Steps ETC <b>Construction of Lugangeni Feedlot Phase 01</b>			

Brought Forward			R
	<u>Soil poisoning and insecticide</u>		
10	Under ramps, etc including forming and poisoning shallow furrows against foundation walls, etc, filling in furrows and ramming	m2	73
11	To bottoms and sides of trenches, etc	m2	62
	<u>15MPa/19mm unreinforced concrete</u>		
12	Ramps laid in panels	m3	10
13	Extra over concrete ramps for thickening size 150mm deep, 200mm top and tapering to 100mm at bottom including all excavation to 100mm, backfilling, etc.	m	60
	<u>Finishing top surfaces of concrete smooth with a wood trowel</u>		
14	Ramps to falls	m2	68
	<u>Brickwork of NFX bricks in class I mortar</u>		
15	One brick walls in foundations	m2	90
	<u>Brickwork reinforcement</u>		
16	150mm Wide reinforcement built in horizontally in foundations	m	144
	<u>Face bricks "Terracotta Travertine" or similar approved by the Principal Agent (Prime cost of R6,500.00/1000 VAT excluded, delivered to site) pointed with recessed horizontal and vertical joints</u>		
17	Extra over brickwork for face brickwork in foundations	m2	120
	<u>Brick-on-edge header course copings, sills, etc of face bricks specified and approved by the Principal Agent (Prime cost of R3,500.00/1000 VAT excluded, delivered to site) pointed with recessed joints on all exposed faces</u>		
18	Coping on top of one brick wall	m	56
Carried Forward			R
Section No. 3 Bill No. 2 Apron Ramps, Steps ETC <b>Construction of Lugangeni Feedlot Phase 01</b>			



Brought Forward			R
<b><u>STEPS</u></b>			
<b><u>Steps to buildings</u></b>			
<u>15MPa/19mm unreinforced concrete</u>			
19	Steps	m3	12
<u>Rough formwork to sides</u>			
20	Stepped outer edges of steps	m2	100
21	Edges of aprons not exceeding 300mm high or wide	m	102
<u>Untinted steel floated granolithic on concrete</u>			
22	30mm Thick to stepped outer edges of steps	m2	72
23	30mm Thick to risers of steps	m2	46
24	30mm Thick to treads of steps including reedings	m2	30
<b>Carried Forward to Summary of Section No. 3</b>			R
Section No. 3			
Bill No. 2			
Apron Ramps,Steps ETC			
<b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Bill No</u>	<u>SECTION SUMMARY - External Work</u>	<u>Page No</u>	<u>Amount</u>
1	General Site Work (Provisional)	69	
2	Apron Ramps,Steps ETC	73	
<b>Carried to Final Summary</b>			
Section No. 3 <b>Construction of Lugangeni Feedlot Phase 01</b>			

<u>Section No</u>	<u>FINAL SUMMARY</u>	<u>Page No</u>		<u>Amount</u>
1	Preliminaries	37		
2	Building	67		
3	External Work	74		
	Sub-Total A		R	
	<b><u>CONTINGENCIES</u></b>			
	Provide the sum of R50,000.00 (Fifty thousand Rand) for contingencies, to be used at the discretion of the Principal Agent and deducted in whole or in part if not required	PS		50 000.00
	Sub-Total B		R	
	Value Added Tax at the rate of 15%		R	
	<b>Carried to Form of Tender</b>		R	
	<b>Construction of Lugangeni Feedlot Phase 01</b>			