

**BID NUMBER: LDPWRI-B/20346**

**CONSTRUCTION OF NEW LIMPOPO PROVINCIAL THEATRE AT  
BAKONE-MALAPA IN CAPRICORN DISTRICT**

For the

**DEPARTMENT OF SPORTS, ART AND CULTURE (DSAC)  
LIMPOPO PROVINCE**

**VOLUME 2 of 3: PRICING DATA  
(CONTRACTOR TO RETURN)**

**Issued by:**

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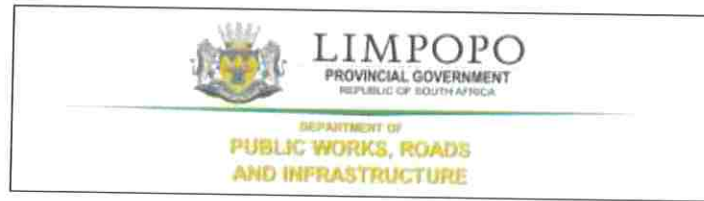
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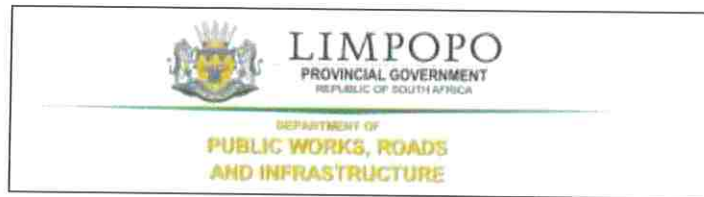
Name of the Bidder : .....



## CONTENTS

### VOLUME 2 - Part C2: PRICING DATA

- C2.1 Part 1 - Pricing Instructions  
& Contract Participation Goal (CPG)
- C2.3 Part 2 - Bills of Quantities



## PART C2: PRICING DATA

Bidder's initials

## PART C2.1: PRICING INSTRUCTIONS

- The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work in accordance with the provisions of the Model Bills of Quantities or Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- The agreement is under the JBCC N/S Subcontractor Agreement for use with the JBCC PBA (Edition 4.1 code 2101 March 2005) form of contract with Preliminaries (Code 2103 May 2005) incorporating the State Provisions of cl 41.0.
- It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.
- The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
- An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Bills of Quantities.
- The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
- The shall set a minimum of 5 % of the project value for sub-contractor determine the amount to be paid for the Contract Participation Goal (CPG).

Bidder's initials

**CONSTRUCTION OF NEW LIMPOPO PROVINCIAL THEATRE AT BAKONE MALAPA, POLOKWANE IN  
CAPRICORN DISTRICT - LDPWRI-B/20346**

**Pricing Assumptions:**

Provides the criteria and assumptions which it will be assumed (in the contract) that the tenderer has taken into account when developing his/her prices.

- The Employer shall determine the amount to be paid for the Contract Participation Goal (CPG) on the contract and this amount shall be stated under the section Enterprise Development as a **Provisional Sum** in the Preliminaries and Generals (P&Gs).

**CONTRACT PARTICIPATION GOAL (CPG)**

The rates given in **Table 1**. are the recommended rates to guide the Employer to determine the amount for Enterprise Development per targeted enterprise. The Employer may adjust these rates which may be affected by factors such as location of the project. The Employer must include this amount as a **Provisional Sum** in the Preliminary and General (P&G) section as illustrated in **Table 1**. **Note: This item should not be a determinant in the competitiveness of the bid.**

**Preliminary and General (Extract Indicating Provisional Sum from P&Gs)**

*Table 1. Breakdown of the items per Targeted Enterprise to be included in the tender data*

Item	Description	Unit	Rate	Quantity	Amount (R)
15	Health and Safety				
16	<b>Enterprise Development</b>				
16.1	Enterprise Development of Targeted Enterprise or JV partners				
16.1.1	Needs Analysis and Enterprise Development Plan per Targeted Enterprise (at a rate of R5000 per enterprise for 5 enterprises)	Item.	5000	5	25000
16.1.2	Monitoring and Interim reporting per targeted enterprise (at a rate of R20,000.00 per quarter over 4 quarters)	Item.	20000	4	80000
16.1.3	Project Completion report per Targeted Enterprise(at a rate of R5000 per enterprise for 5 enterprises)	Item.	5000	5	25000

Item 16.1.1 refers to the Needs Analysis the contractor shall perform on the targeted enterprise and / or JV partner to identify the developmental goals at a rate of R5000.00 (five thousand Rands) per targeted enterprise.

Item 16.1.2 refers to the Monitoring and Interim reporting to be performed by the contractor as per the Standard at a rate of R20 000.00 (twenty thousand Rands) per quarter.

Item 16.1.3 refers to the Completion report, the contractor shall submit the Completion report to the Employer's representative as per the Standard at a rate of R5000.00 (five thousand Rands) per targeted enterprise.

The contractor shall be paid as follows:

1. Needs analysis and enterprise development plan per Targeted Enterprise
2. Mentoring and interim reporting per Targeted Enterprise; and
3. Project completion report per Targeted Enterprise.

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## PART C2.2: BILLS OF QUANTITIES

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LIMPOPO DEPARTMENT OF PUBLIC WORKS, ROADS  
AND INFRASTRUCTURE

**CONSTRUCTION OF NEW LIMPOPO PROVINCIAL  
THEATRE**

AT BAKONE MALAPA

POLOKWANE

TENDER DOCUMENTS

**BILLS OF QUANTITIES**



August 2023

**INDEX TO BILLS OF QUANTITIES**

<u>Bill No</u>	<u>Page No</u>
SECTION NO. 1: PRELIMINARIES .....	1
SECTION SUMMARY .....	29
SECTION NO. 2: BUILDINGS .....	30
1 FOUNDATIONS (PROVISIONAL) .....	31
2 EARTHWORKS .....	38
3 CONCRETE, FORMWORK & REINFORCEMENT .....	41
4 MASONRY .....	48
5 WATERPROOFING .....	54
6 ROOF COVERINGS .....	59
7 CARPENTRY AND JOINERY .....	62
8 CEILINGS, PARTITIONS & ACCESS FLOORING .....	72
9 FLOOR COVERINGS .....	84
10 IRONMONGERY .....	88
11 STRUCTURAL STEELWORK (PROVISIONAL) .....	89
12 METALWORK .....	99
13 PLASTERING .....	117
14 TILING .....	121
15 PLUMBING AND DRAINAGE .....	125
16 GLAZING .....	134
17 PAINTWORK .....	137
SECTION SUMMARY .....	141
SECTION NO. 3: EXTERNAL WORKS .....	142
1 EARTHWORKS, ROADS, STORMWATER .....	143
2 BOREHOLE AND RISING MAIN .....	168
3 SEWER INSTALLATION .....	171
SECTION SUMMARY .....	172



<b>SECTION NO. 4: ELECTRICAL INSTALLATION</b>	173
1 SUPPLEMENTARY PREAMBLES	174
2 SITEWORKS	178
3 LEVEL 1	185
4 LEVEL 2	190
5 LEVEL 3	196
6 LEVEL 4	201
7 LEVEL 5	205
8 GUARD HOUSE	209
9 ELECTRICAL PROVISIONAL SUMS	213
10 ELECTRONICS	214
SECTION SUMMARY	231
<b>SECTION NO. 5: MECHANICAL INSTALLATION</b>	232
1 PRELIMINARIES	233
2 HEATING, VENTILATION AND AIR-CONDITIONING	237
3 FIRE SYSTEMS	259
4 KITCHEN EQUIPMENT	266
5 ELEVATORS	276
6 WET SERVICES	281
SECTION SUMMARY	285
<b>SECTION NO. 6: PROVISIONAL SUMS</b>	286
1 PROVISIONAL SUMS	287
2 BUILDERS WORK I.C.W. SPECIALIST SUBCONTRACTORS	291
SECTION SUMMARY	294
<b>SECTION NO. 7: CONTRACT PRICE ADJUSTMENT PROVISIONS</b>	295
1 CPAP PROVISION	296
SECTION SUMMARY	297

**SECTION NO. 1**  
**PRELIMINARIES**

Amount

**SECTION NO. 1**

**PRELIMINARIES**

**(CPAP WORK GROUP NO. 190 UNLESS OTHERWISE STATED)**

**PRICING OF PRELIMINARIES**

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

Items not priced in these Preliminaries shall be deemed to be included elsewhere in these bills of quantities

**SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT**

**DEFINITIONS**

**A1.0 DEFINITIONS AND INTERPRETATION**

Clause 1.0

Clause 1.1 Definition of "Commencement Date" is added:

"COMMENCEMENT DATE" means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect

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

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

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

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

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

Clause 1.1 Definition of "Corrupt Practice" is added:

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

Clause 1.1 Definition of "Fraudulent Practice" is added:

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

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

Carried To Section Summary

Item

R

Section No. 1  
 Bill No. 1  
 Preliminaries

Amount

"INTEREST" means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999)

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

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

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

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

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

Clause 1.6.4 is amended by replacing it with the following:

2 No clause

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related:

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

**OBJECTIVE AND PREPARATION**

**A2.0 OFFER, ACCEPTANCE AND PERFORMANCE**

3 Clause 2.0

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

**A3.0 DOCUMENTS**

Clause 3.0

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

Clause 3.7 is amended by the addition of the following:

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

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

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

**A4.0 DESIGN RESPONSIBILITY**

Clause 4.0

Clause 4.3 is amended by replacing it with the following:

Carried To Section Summary

Section No. 1  
Bill No. 1  
Preliminaries

Item

Item

Item

R

Amount

	No clause		
	<b>A5.0 EMPLOYER'S AGENTS</b>		
5	Clause 5.0		
	Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8 F: ..... V: ..... T: .....	Item	
	<b>A6.0 SITE REPRESENTATIVE</b>		
6	Clause 6.0 F: ..... V: ..... T: .....	Item	
	<b>A7.0 COMPLIANCE WITH REGULATIONS</b>		
7	Clause 7.0		
	Note: A separate clause has been included in Section C : Specific Preliminaries of the bills of quantities / lump sum document for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety specification F: ..... V: ..... T: .....	Item	
	<b>A8.0 WORKS RISK</b>		
8	Clause 8.0 F: ..... V: ..... T: .....	Item	
	<b>A9.0 INDEMNITIES</b>		
9	Clause 9.0 F: ..... V: ..... T: .....	Item	
	<b>A10.0 WORKS INSURANCES</b>		
10	Clause 10.0 is amended by the addition of the following clauses: F: ..... V: ..... T: .....	Item	
	<b>10.5 Damage to the Works</b>		
	(a) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary		
	(b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace or repair the works		
	(c) The employer shall carry the risk of damage to or destruction of the works and materials paid for by the employer that is the result of the excepted risks as set out in 10.6		
	Carried To Section Summary	R	
Section No. 1 Bill No. 1 Preliminaries			

Amount

11 (d) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof

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

**10.6 Injury to Persons or loss of or damage to Properties**

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

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

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

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

(e) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the contractor shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the works has been completed

12 (f) The contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace or repair such property and to execute the works

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

Item

Item

Carried To Section Summary

R

Section No. 1  
 Bill No. 1  
 Preliminaries

Amount

**10.7 High risk insurance**

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

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

**10.7.1 Damage to the works**

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

Item

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

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

**10.7.2 Injury to persons or loss of or damage to property**

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

Item

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

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

Carried To Section Summary

R

Section No. 1  
 Bill No. 1  
 Preliminaries

Amount

15 10.7.4 The employer shall be entitled to recover any and all losses or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole

Item

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

**A11.0 LIABILITY INSURANCES**

16 Clause 11.0

Item

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

**A12.0 EFFECTING INSURANCES**

17 Clause 12.0

Item

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

18 A13.0 No clause

Item

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

**A14.0 SECURITY**

Clause 14.0

Clauses 14.1 – 14.8 are amended by replacing them with the following:

14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)

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

14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor

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

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

Carried To Section Summary

R

Section No. 1  
Bill No. 1  
Preliminaries



Amount

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

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

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

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

14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor

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

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

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

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

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

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

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

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

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

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

Carried To Section Summary

R

Section No. 1  
 Bill No. 1  
 Preliminaries

Amount

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

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

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

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

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

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

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

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

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

14.7.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the contractor

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

19 14.9 Should the contractor fail to furnish the security in terms of 14.2, the employer, in his sole discretion and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT), whereafter 14.7 shall be applicable

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

**EXECUTION**

**A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS**

Clause 15.0

Clause 15.1.1 is amended by replacing it with:

Carried To Section Summary

Item

R

Section No. 1  
 Bill No. 1  
 Preliminaries

Amount

	<p>No clause</p> <p>Clause 15.1.2 is amended by replacing it with: The security selected in terms of 14.0</p> <p>Clause 15.1 is amended by the addition of the following clause: 15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) calendar days of commencement date</p> <p>20 Clause 15.2.1 is amended by replacing it with the following clause: Give the contractor possession of the site within ten (10) working days of the contractor complying with the terms of 15.1.4 F: ..... V: ..... T: .....</p> <p><b>A16.0 ACCESS TO THE WORKS</b></p> <p>21 Clause 16.0 F: ..... V: ..... T: .....</p> <p><b>A17.0 CONTRACT INSTRUCTIONS</b></p> <p>22 Clause 17.0 Clause 17.1.11 is amended by deleting the words "and the appointment of nominated and selected subcontractors" F: ..... V: ..... T: .....</p> <p><b>A18.0 SETTING OUT OF THE WORKS</b></p> <p>23 Clause 18.0 F: ..... V: ..... T: .....</p> <p><b>A19.0 ASSIGNMENT</b></p> <p>24 Clause 19.0 F: ..... V: ..... T: .....</p> <p><b>A20.0 NOMINATED SUBCONTRACTORS</b></p> <p>25 Clause 20.0 Clause 20.1.3 is amended by replacing it with the following: No clause Note: See item B9.1 hereinafter for adjustment of attendance on nominated subcontractors executing work allowed for under Provisional Sums F: ..... V: ..... T: .....</p> <p><b>A21.0 SELECTED SUBCONTRACTORS</b></p> <p>26 Clause 21.0 Clause 21 is amended by replacing it with:</p>	<p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p>	<p></p> <p></p> <p></p> <p></p> <p></p> <p></p>	<p></p> <p></p> <p></p> <p></p> <p></p> <p></p>
	<p style="text-align: right;">Carried To Section Summary</p>	<p>R</p>	<p></p>	<p></p>

Section No. 1  
Bill No. 1  
Preliminaries

		Amount
	No clause F: ..... V: ..... T: .....	Item
	<b>A22.0 EMPLOYER'S DIRECT CONTRACTORS</b>	
27	Clause 22.0 F: ..... V: ..... T: .....	Item
	<b>A23.0 CONTRACTOR'S DOMESTIC SUBCONTRACTORS</b>	
28	Clause 23.0 F: ..... V: ..... T: .....	Item
	<b><u>COMPLETION</u></b>	
	<b>A24.0 PRACTICAL COMPLETION</b>	
29	Clause 24.0 F: ..... V: ..... T: .....	Item
	<b>A25.0 WORKS COMPLETION</b>	
30	Clause 25.0 F: ..... V: ..... T: .....	Item
	<b>A26.0 FINAL COMPLETION</b>	
31	Clause 26.0 Clause 26.1.2 is amended by inserting "#" next to 26.1.2 F: ..... V: ..... T: .....	Item
	<b>A27.0 LATENT DEFECTS LIABILITY PERIOD</b>	
32	Clause 27.0 F: ..... V: ..... T: .....	Item
	<b>A28.0 SECTIONAL COMPLETION</b>	
33	Clause 28.0 F: ..... V: ..... T: .....	Item
	<b>A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION</b>	
34	Clause 29.0 Clause 29.2.5 is amended by replacing it with: No clause F: ..... V: ..... T: .....	Item
	<b>A30.0 PENALTY FOR NON-COMPLETION</b>	
35	Clause 30.0 F: ..... V: ..... T: .....	Item
	Carried To Section Summary	R
	Section No. 1	
	Bill No. 1	
	Preliminaries	

Amount

**PAYMENT**

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

Clause 31.0

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

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

**Alternative A**

31.8(A) Where a security is selected in terms of 14.1; 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

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

31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

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

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

**Alternative B**

31.8(B) Where security as a payment reduction in terms of 14.7 has been selected, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion

31.8(B).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

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

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

Clause 31.12 is amended by deleting the following:

Carried To Section Summary

R

Section No. 1  
 Bill No. 1  
 Preliminaries

Amount

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

Item

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

**A32.0 ADJUSTMENT TO THE CONTRACT VALUE**

37 Clause 32.0

Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:

"due to no fault of the contractor"

Item

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

**A33.0 RECOVERY OF EXPENSE AND LOSS**

38 Clause 33.0

Item

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

**A34.0 FINAL ACCOUNT AND FINAL PAYMENT**

Clause 34.0

Clause 34.1 is amended by removing "#" next to 34.1

Clause 34.2 is amended by inserting "#" next to 34.2

Clause 34.8 is amended by deleting the words "where security as a fixed construction guarantee in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"

39 Clause 34.13 is amended by replacing "seven (7) calendar days" with "twenty-one (21) calendar days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"

Item

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

**A35.0 PAYMENT TO OTHER PARTIES**

40 Clause 35.0

Item

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

**CANCELLATION**

**A36.0 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT**

41 Clause 36.0

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

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

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

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

Carried To Section Summary

R

Section No. 1  
Bill No. 1  
Preliminaries

Amount

	<p>Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"</p> <p>F: ..... V: ..... T: .....</p>	Item		
42	<p>36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>F: ..... V: ..... T: .....</p>	Item		
	<p><b>A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE</b></p> <p>Clause 37.0</p> <p>Clause 37.3.5 is amended by replacing "ninety (90)" with "one hundred and twenty (120)"</p>			
43	<p>37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>F: ..... V: ..... T: .....</p>	Item		
	<p><b>A38.0 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT</b></p> <p>Clause 38.0</p> <p>Clause 38.5.4 is amended by replacing "ninety (90)" with "one hundred and twenty (120)"</p> <p>Clause 38.0 is amended by the addition of the following clause:</p>			
44	<p>38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>F: ..... V: ..... T: .....</p>	Item		
	<p><b>A39.0 CANCELLATION - CESSATION OF THE WORKS</b></p> <p>Clause 39.0</p> <p>Clause 39.3.5 is amended by the addition of the following at the end of the sentence:</p> <p>"within one hundred and twenty (120) working days of completion of such a</p> <p>F: ..... V: ..... T: .....</p>			
	<p style="text-align: right;">Carried To Section Summary</p>	R		
	<p>Section No. 1 Bill No. 1 Preliminaries</p>			

Amount

**DISPUTE**

**A40.0 DISPUTE SETTLEMENT**

Clause 40.0

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

Clause 40.6 is amended by removing the reference to: No clause

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

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

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

Item

**SUBSTITUTE PROVISIONS**

**A41.0 STATE CLAUSES**

47 Clause 41.0

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

Item

**CONTRACT VARIABLES**

**A42.0 THE SCHEDULE (DPW-04EC)**

48 Clause 42.0

Tenderers are referred to the Contract Data DPW-04(EC) for variables pertaining to this contract

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

Item

**SECTION 1: PRELIMINARIES**

**BILL NO. 2**

**SECTION B: JBCC PRELIMINARIES**

**B1.0 DEFINITIONS AND INTERPRETATION**

**B1.1 Definitions and interpretation**

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

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

Item

**B2.0 DOCUMENTS**

50 B2.1 Checking of documents

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

Item

51 B2.2 Provisional bills of quantities

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

Item

Carried To Section Summary

R

Section No. 1  
Bill No. 1  
Preliminaries



Amount

52 B2.3 Availability of construction documentation  
 F: ..... V: ..... T: .....

Item

53 B2.4 Interests of agents  
 F: ..... V: ..... T: .....

Item

54 B2.5 Priced documents  
 F: ..... V: ..... T: .....

Item

55 B2.6 Tender submission  
 Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance)"  
 F: ..... V: ..... T: .....

Item

**B3.0 THE SITE**

56 B3.1 Defined works area  
 F: ..... V: ..... T: .....

Item

57 B3.2 Geotechnical investigation  
 F: ..... V: ..... T: .....

Item

58 B3.3 Inspection of the site  
 F: ..... V: ..... T: .....

Item

59 B3.4 Existing premises occupied  
 F: ..... V: ..... T: .....

Item

60 B3.5 Previous work – dimensional accuracy  
 F: ..... V: ..... T: .....

Item

61 B3.6 Previous work – defects  
 F: ..... V: ..... T: .....

Item

62 B3.7 Services – known  
 F: ..... V: ..... T: .....

Item

63 B3.8 Services – unknown  
 F: ..... V: ..... T: .....

Item

64 B3.9 Protection of trees  
 F: ..... V: ..... T: .....

Item

65 B3.10 Articles of value  
 F: ..... V: ..... T: .....

Item

66 B3.11 Inspection of adjoining properties  
 F: ..... V: ..... T: .....

Item

**B4.0 MANAGEMENT OF CONTRACT**

67 B4.1 Management of the works  
 F: ..... V: ..... T: .....

Item

Carried To Section Summary

R

Section No. 1  
 Bill No. 1  
 Preliminaries

Amount

68 B4.2 Programme for the works  
F: ..... V: ..... T: .....

Item

69 B4.3 Progress meetings  
F: ..... V: ..... T: .....

Item

70 B4.4 Technical meetings  
F: ..... V: ..... T: .....

Item

71 B4.5 Labour and plant records  
F: ..... V: ..... T: .....

Item

**B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS INSTRUCTIONS**

72 B5.1 Samples of materials  
F: ..... V: ..... T: .....

Item

73 B5.2 Workmanship samples  
F: ..... V: ..... T: .....

Item

74 B5.3 Shop drawings  
F: ..... V: ..... T: .....

Item

75 B5.4 Compliance with manufacturers' instructions  
F: ..... V: ..... T: .....

Item

**B6.0 TEMPORARY WORKS AND PLANT**

76 B6.1 Deposits and fees  
F: ..... V: ..... T: .....

Item

77 B6.2 Enclosure of the works  
F: ..... V: ..... T: .....

Item

78 B6.3 Advertising  
F: ..... V: ..... T: .....

Item

79 B6.4 Plant, equipment, sheds and offices  
F: ..... V: ..... T: .....

Item

80 B6.5 Main notice board  
F: ..... V: ..... T: .....

Item

81 B6.6 Subcontractors' notice board  
F: ..... V: ..... T: .....

Item

**B7.0 TEMPORARY SERVICES**

82 B7.1 Location  
F: ..... V: ..... T: .....

Item

83 B7.2 Water  
F: ..... V: ..... T: .....

Item

84 B7.3 Electricity  
F: ..... V: ..... T: .....

Item

Carried To Section Summary

R

Section No. 1  
Bill No. 1  
Preliminaries

Amount

85 B7.4 Telecommunication facilities  
 F: ..... V: ..... T: .....

Item

86 B7.5 Ablution facilities  
 F: ..... V: ..... T: .....

Item

**B8.0 PRIME COST AMOUNTS**

87 B8.1 Responsibility for prime cost amounts  
 F: ..... V: ..... T: .....

Item

**B9.0 ATTENDANCE ON N/S SUBCONTRACTORS**

88 B9.1 General attendance  
 F: ..... V: ..... T: .....

Item

89 B9.2 Special attendance  
 F: ..... V: ..... T: .....

Item

90 B9.3 Commissioning – fuel, water and electricity  
 F: ..... V: ..... T: .....

Item

**B10.0 FINANCIAL ASPECTS**

91 B10.1 Statutory taxes, duties and levies  
 F: ..... V: ..... T: .....

Item

92 B10.2 Payment for preliminaries  
 F: ..... V: ..... T: .....

Item

93 B10.3 Adjustment of preliminaries  
 Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) working days of taking possession of the site" with "when submitting his priced bills of quantities / lump sum document"  
 F: ..... V: ..... T: .....

Item

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

Item

95 B10.4 Payment certificate cash flow  
 F: ..... V: ..... T: .....

Item

**B11.0 GENERAL**

96 B11.1 Protection of the works  
 F: ..... V: ..... T: .....

Item

97 B11.2 Protection / isolation of existing / sectionally occupied works  
 F: ..... V: ..... T: .....

Item

98 B11.3 Security of the works  
 F: ..... V: ..... T: .....

Item

Carried To Section Summary

**R**

Section No. 1  
 Bill No. 1  
 Preliminaries

		Amount
99	B11.4 Notice before covering work F: ..... V: ..... T: .....	Item
100	B11.5 Disturbance 0 0 F: ..... V: ..... T: .....	Item
101	B11.6 Environmental disturbance 0 1 F: ..... V: ..... T: .....	Item
102	B11.7 Works cleaning and clearing 0 2 F: ..... V: ..... T: .....	Item
103	B11.8 Vermin F: ..... V: ..... T: .....	Item
104	B11.9 Overhand work F: ..... V: ..... T: .....	Item
105	B11.10 Instruction manuals and guarantees 0 5 F: ..... V: ..... T: .....	Item
106	B11.11 As built information 0 6 F: ..... V: ..... T: .....	Item
107	B11.12 Tenant installations 0 7 F: ..... V: ..... T: .....	Item
<b><u>B12.0 SCHEDULE OF VARIABLES</u></b>		
108	B12.1 Schedule of variables F: ..... V: ..... T: ..... This schedule contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries	Item
<b><u>12.1 PRE-TENDER INFORMATION</u></b>		
<b>12.1.1 Provisional bills of quantities</b>		
[2.2] The quantities are provisional No		
<b>12.1.2 Availability of construction documentation</b>		
Section No. 1		
Bill No. 1		
Preliminaries		

[2.3] Construction documentation is complete NO

LIMPOPO PROVINCIAL THEATRE

**12.1.3 Interests of agents**

Amount

[2.4] Details: NIL

**12.1.4 Defined works area**

[3.1] Details:

The site is in Bakone Malapa, Polokwane, Capricorn District Municipality, Limpopo Province

Carried To Section Summary

R

Amount

**12.1.5 Geotechnical investigation**

[3.2] Details:

Available on request from Consulting Engineers

**12.1.6 Existing premises occupied**

[3.4] Specific requirements: Not applicable

**12.1.7 Previous work - dimensional accuracy**

[3.5] Details:

Building platforms, retaining walls and bulk infrastructure by others

**12.1.8 Previous work - defects**

[3.6] Details: As above item

**12.1.9 Services - known**

[3.7] Details:

Details available on request from Consulting engineers

**12.1.10 Protection of trees**

[3.9] Specific requirements: Not applicable

**12.1.11 Inspection of adjoining properties**

[3.11] Specific requirements:

Contractor to carry out their own inspection and report if they identify any concerns

**12.1.12 Enclosure of the works**

[6.2] Specific requirements:

**12.1.13 Offices**

[6.4.3] Specific requirements:

**A contractors camp is to be created with the following temporary structures to be provided:**

The contractor shall provide, maintain and remove on completion of the works offices as listed below and are to be suitably insulated, ventilated and airconditioned, provided with electric lighting and power socket outlets and fitted with boarded floors. Wi-Fi facilities are to be provided with access to Internet. The offices shall be kept clean and fit for use at all times.

NOTE: The offices, rooms and toilets described here are to be separate structures. The contractor will NOT be permitted to use rooms in the buildings for this purpose. Separate, sturdily built, fully maintained and regularly cleaned buildings are to be provided for this use through out the duration of the contract.

Contractor's site office

Carried To Section Summary

R

Section No. 1

Bill No. 1

Preliminaries

Amount

Meeting room for the use of the principal agent and project team with tables and chairs suitable to seat 20 people. Room to be provided with electrical power for the duration of the contract

Office for use of the principal agent, Clerk of Works and consultant team, size 5 x 4 x 3m high with two desks, four chairs, lockable filing cabinet and constant electrical power and with shelving and tables suitable to hold material samples for the duration of the contract

Male and female flushing toilets for the exclusive use of the client, user client and consultant team including the Clerk of Works, kept thoroughly clean at all times

Staff and labour sheltered eating areas complying with the requirements of the OHS Act and as directed by the Health and Safety agent

**12.1.14 Main notice board**

[6.5] Specific requirements:

The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 2.4 x 2.4m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering

**12.1.15 Subcontractors' notice board**

[6.6] A subcontractor's notice board is required NO

Specific requirements:

**12.1.16 Water**

[7.2] Option A (by contractor) YES

Option B (by employer – free of charge) NO

Option C (by employer – metered) NO

**12.1.17 Electricity**

[7.3] Option A (by contractor) YES

Option B (by employer – free of charge) NO

Option C (by employer – metered) NO

**12.1.18 Telecommunications**

[7.4] Telephone – (by contractor) YES

Facsimile – By contractor NO

Email – By contractor YES

Carried To Section Summary

R

Section No. 1

Bill No. 1

Preliminaries

Amount

The contractor shall provide Wi-Fi facilities on site for the use of consultants and client representatives. These are to cover the consultant's offices and the boardroom on site for the duration of the project

**12.1.19 Ablution facilities**

[7.5] Option A (by contractor)

Option A – by contractor YES

Option B – by employer NO

**12.1.22 Protection of the works**

[11.1] Specific requirements:

All precautions are to be taken to prevent damage or harm to the works. The client is to be indemnified against any and all eventualities. The existing buildings are to be insured against damage by the employer. However the contractor is to take all necessary precautions to prevent damage to existing buildings and property whilst he is in possession of the site

**12.1.23 Disturbance**

[11.5] Specific requirements:

The contractor shall keep the site, structures, etc. well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent

**12.1.24 Environmental disturbance [11.6] Specific requirements:**

The contractor is to ensure that no environmental damage occurs on or over the site during the execution of the works and whilst he is in possession of the site. All precautions are to be taken to ensure that the water, soil, vegetation and air on and over the site are not contaminated whilst the contractor is in possession of the

**12.1.24 Environmental disturbance**

[11.6] Specific requirements:

The contractor is to ensure that no environmental damage occurs on or over the site during the execution of the works and whilst he is in possession of the site. All precautions are to be taken to ensure that the water, soil, vegetation and air on and over the site are not contaminated whilst the contractor is in possession of the

**12.2 POST-TENDER INFORMATION**

**12.2.1 Payment of Preliminaries**

Option to be selected by the contractor:

[10.2] Option A (Prorated) \_\_\_\_\_

Option B (Calculated) \_\_\_\_\_

**12.2.2 Adjustment of Preliminaries**

10.3] Option A (Three categories) \_\_\_\_\_

Option B (Detailed breakdown) \_\_\_\_\_

Carried To Section Summary

R

Section No. 1  
Bill No. 1  
Preliminaries



Amount

**12.2.3 Additional agreed preliminaries items:**

Details:

**SECTION C: SPECIFIC PRELIMINARIES**

**Section C: Specific Preliminaries:**

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

**C1 CONTRACT DRAWINGS**

109 The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent

Item

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

**C2 GENERAL PREAMBLES**

1101 Where not described differently the document 'Specification of Materials and Methods to be used (PW371)' is obtainable on the Department of Public Work's website ([www. publicworks.gov.za/](http://www.publicworks.gov.za/) under 'Consultants Guidelines) and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work methods and materials to be used

Item

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

**C3 TRADE NAMES**

1111 Wherever a trade name for any product has been described in the bills of quantities, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for

Item

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

Carried To Section Summary

R

Section No. 1  
Bill No. 1  
Preliminaries

Amount

**C4 IMPORTED MATERIALS AND EQUIPMENT**

1121 Where imported items are listed in the tender documents, the tenderer shall  
 1 provide all the information called for, failing which the price of any such item,  
 2 materials or equipment shall be excluded from currency fluctuations. (refer to  
 Schedule of Imported Materials and Equipment DPW-23(EC) to be completed by  
 tenderer) Notwithstanding any provisions elsewhere regarding the adjustment of  
 contract prices, the price of any item, material or equipment listed in terms of this  
 clause shall be excluded from the Contract Price Adjustment Provisions (if  
 applicable)

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

**C5 HIV/AIDS AWARENESS**

It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW  
 1544) of the Department of Public Works that must be read together with and is  
 deemed to be incorporated under this Section of the bills of quantities / lump sum  
 document. Provision for pricing of HIV/AIDS awareness is made under items C10.1  
 to C10.5 hereafter and it is explicitly pointed out that all requirements of the  
 aforementioned specification are deemed to be priced hereunder, as the said items  
 represent the only method of measurement and no additional items or extras to  
 the contract in this regard shall be entertained

The contractor must take note that compliance with the HIV/AIDS Specification is  
 compulsory. In the event of partial or total non-compliance, the principal agent,  
 notwithstanding the provisions of clause A 31.0 of Section A or any other clause to  
 the contrary, reserves the right to delay issuing any progress payment certificate  
 until the contractor provides satisfactory proof of compliance. The contractor shall  
 not be entitled to any compensation of whatsoever nature, including interest, due  
 to such delay of payment

**C5.1 AWARENESS CHAMPION**

1131 Selection, appointment, briefing and making available of an Awareness Champion  
 1 including provision of all relevant services, all in accordance with the HIV/AIDS  
 3 Specification

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

**C5.2 AWARENESS WORKSHOPS**

1141 Selection and appointment of a competent Service Provider approved by the  
 1 principal agent, provision of a Service Provider Workshop Plan and a suitable venue,  
 4 conducting of awareness workshops by means of traditional and/or modern multi-  
 media techniques, including follow-up courses, making available all tuition material  
 and performing assessment procedures, all in accordance with the HIV/AIDS  
 Specification

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

Carried To Section Summary

Section No. 1  
 Bill No. 1  
 Preliminaries

Item

Item

Item

R

		Amount
<b><u>C5.3 POSTERS, BOOKLETS, VIDEOS, ETC.</u></b>		
1151	Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification  F: ..... V: ..... T: .....	Item
<b><u>C5.4 ACCESS TO CONDOMS</u></b>		
1161	Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification  F: ..... V: ..... T: .....	Item
<b><u>C5.5 MONITORING</u></b>		
1171	Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification  F: ..... V: ..... T: .....	Item
<b><u>C6 OCCUPATIONAL HEALTH AND SAFETY ACT</u></b>		
The contractor shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993). It is required of the contractor to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the bills of quantities. The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory.		
1181	In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment. Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.  F: ..... V: ..... T: .....	Item
<b><u>C6.1 Training (Construction Regulation 8c)</u></b>		
1191	The contractor and sub-contractors shall, before commencing any construction work, submit his training program of all his employees. This program shall form part of the health and safety plan  F: ..... V: ..... T: .....	Item
Carried To Section Summary		<b>R</b>
Section No. 1 Bill No. 1 Preliminaries		

Amount

**C7 TRAINING**

**Provision of Training Allowance in terms of EPWP prescripts**

1201 Training allowance paid to targeted labour in terms of formal training days  
 2  
 0  
 Item

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

1211 Extra for administration payment of training allowances to targeted labour (25% of  
 2 training allowance)  
 1  
 Item

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

1221 Transport and accommodation of workers for training where it is not possible to  
 2 undertake the training in close proximity to the site (Provisional Sum)  
 2  
 Item

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

123 The unit of measurement shall be the cost per km based on the total km travelled  
 during the month for the CLO from his home to the construction site  
 Item

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

**C7.1 Payment for Employment and Training of Local Unskilled Workers**

1241 Orientation and Life Skills development training for local unskilled workers for an  
 2 average of 10 days per worker  
 4  
 Item

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

**Technical skills training for local unskilled workers for an average of 20 days per  
 worker**

125 The tendered sum shall include full compensation for identification of  
 prequalification criteria and training needs, staff assessment and evaluation prior to  
 training, all technical research, development and compilation of an accredited  
 training course and course material, and all other actions necessary for  
 commencement of official training sessions in accordance with the specification.  
 The tendered sum shall also include full compensation for the compilation of a draft  
 syllabus and for incorporation of all the Engineer's comments and corrective  
 requirements  
 Item

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

25 000 00

**C8 TARGETED ENTERPRISES**

**Enterprise Development**

126 Needs Analysis and Enterprise Development Plan per Targeted Enterprise (at a rate  
 of R5000.00 per enterprise for 5 enterprises).  
 Sum

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

127 Add for contractor's mark-up and attendance  
 Item

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

Section No. 1  
 Bill No. 1  
 Preliminaries

LIMPOPO PROVINCIAL THEATRE  
Amount

Carried To Section Summary

**R**

		Amount
128	Monitoring and Interim reporting per targeted enterprise (at a rate of R20 000.00 per quarter over 4 quarters)  F: ..... V: ..... T: .....	Per Quarte
1291	Add for contractor's mark-up and attendance 2 9  F: ..... V: ..... T: .....	Item
1301	Project Completion report per Targeted Enterprise 3 0  F: ..... V: ..... T: .....	Sum
131	Add for contractor's mark-up and attendance  F: ..... V: ..... T: .....	Item
		25 000 00

Section No. 1  
 Bill No. 1  
 Preliminaries

LIMPOPO PROVINCIAL THEATRE  
Amount

Carried To Section Summary

R

Amount

**SECTION NO. 1**

**PRELIMINARIES**

**SECTION SUMMARY**

Page

Brought forward from page	2
Brought forward from page	3
Brought forward from page	4
Brought forward from page	5
Brought forward from page	6
Brought forward from page	7
Brought forward from page	8
Brought forward from page	9
Brought forward from page	10
Brought forward from page	11
Brought forward from page	12
Brought forward from page	13
Brought forward from page	14
Brought forward from page	15
Brought forward from page	16
Brought forward from page	17
Brought forward from page	18
Brought forward from page	19
Brought forward from page	20
Brought forward from page	21
Brought forward from page	22
Brought forward from page	23
Brought forward from page	24
Brought forward from page	25

Carried to Next

R

Section No. 1  
SECTION SUMMARY



LIMPOPO PROVINCIAL THEATRE

Amount

Brought from Previous

R

Brought forward from page

26

Brought forward from page

27

Carried to Final Summary

R

Section No. 1  
SECTION SUMMARY

## **SECTION NO. 2**

### **BUILDINGS**

Unit    Quantity    Rate    Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 1**

**FOUNDATIONS (PROVISIONAL)**

**(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles will apply equally to all buildings under construction on this project.

**Over excavation:**

Any excavation below that indicated on drawings, or required by the principal agent in order to obtain a solid foundation, or for other reasons, shall be filled in by the contractor at his own expense with 10Mpa concrete

**Density tests:**

Density tests measured below are those specifically instructed by the engineer to be taken on filling material. All control tests to ensure layerworks are compacted to the required density are to be allowed for by the contractor in scheduled rates.

**Bulk earthworks compaction tests:**

- 1 x test per 1500 m2 – OMC, Indicator, CBR
- 1 x test per 1500 m2 of G7 per 300 mm layer

**Restricted backfill compaction tests:**

- 1 x test per 5 m2 of selected backfill per 300 mm layer

**Under floors compaction tests:**

- 1 x test per 1500 m2 of G5 per 150 mm layer

Testing: The following tests will be required by the consulting engineers in all trades:

Carried to Collection

Section No. 2  
 Bill No. 1  
 Foundations (provisional)

R

	Unit	Quantity	Rate	Amount
<p><b>Concrete Testing:</b></p>				
<p>At least one set of cubes per day of casting (i.e.150 x 150 x 150mm)</p>				
<p><b>Crushing tests:</b></p>				
<p>Foundations: 12 cubes fore every 50 m3.</p>				
<p>Floor slabs: 12 cubes fore every 50 m3</p>				
<p><b>Columns and beams:</b></p>				
<p>6 cubes fore every 6 m3. Slump tests: 1 per 6 m3</p>				
<p><b>Nature of ground:</b></p>				
<p>Earth is regarded as loose, hard gravel interspersed with stones not exceeding 100mm in diameter. 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 or pieces of concrete not exceeding 0,03 m3 in volume.</p>				
<p>Hard rock shall mean granite, quartzite sandstone or other rock of similar hardness, the removal of which requires drilling, wedging and splitting or the use of explosives</p>				
<p>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</p>				
<p>Rock is to be recorded by photograph and not covered until the consultant engineer and quantity surveyor have had access to view</p>				
<p>If the contractor considers that any of the excavations are more difficult in nature than excavations in "earth", he shall immediately notify the principal agent and quantity surveyor in writing. If the contractor fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly</p>				
<p>The contractor may, with the prior written permission of the principal agent and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but his chosen method of excavation shall not determine the classification of the materials excavated</p>				
<p><b>Risk of collapse:</b></p>				
<p>The contractor shall be responsible for the risk of collapse of all excavated faces</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 2 Bill No. 1 Foundations (provisional)</p>				

	Unit	Quantity	Rate	Amount
<p>Where excavations do not exceed 1.5m deep, the nature of the precautions to be taken shall be entirely at the contractor's discretion. The contractor shall either provide temporary support to the excavated faces, or carry the risk of collapse of the faces, with all its implications and possible consequential costs</p> <p>Where excavations exceed 1.5m deep, the contractor shall maintain all excavated faces, in accordance with Statutory and local Authority Regulations, and be responsible for the resultant, and consequential, costs</p> <p>Excavations for working space shall include any additional risk of collapse so incurred</p> <p><b>Carting away of excavated material:</b></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><b>Filling:</b></p> <p>Prices for filling and backfilling shall include for all selection and any multiple handling of material</p> <p><b>Compaction of all "filling" and "backfilling":</b></p> <p>Unless otherwise described, all "filling" and "backfilling" is hereby deemed to be compacted to 98%Mod.AASHTO dry density</p> <p><b><u>EXCAVATIONS etc.</u></b></p> <p><b>Excavate in earth not exceeding 2m deep:</b></p>				
1	Trenches	m <sup>3</sup>	135	
	Core 135			
2	Holes	m <sup>3</sup>	3 106	
	Core 1314          Nor 870          Sou 922			
3	Lift Pits	m <sup>3</sup>	228	
	Core 228			
<p><b>Excavate in earth not exceeding 2m and not exceeding 4m deep:</b></p>				
4	Lift Pits	m <sup>3</sup>	114	
	Core 114			
<p><b>Extra over trench and hole excavations in earth for excavation in:</b></p>				
5	Soft rock	m <sup>3</sup>	1 067	
	Core 474          Nor 286          Sou 307			
Carried to Collection				R
<p>Section No. 2                  Bill No. 1                  Foundations (provisional)</p>				

	Unit	Quantity	Rate	Amount
6	Hard rock	m <sup>3</sup>	1 495	
	Core 1196	Nor 143	Sou 156	
	<b>Allow for risk of collapse of excavations:</b>			
7	Sides of holes and trenches excavations exceeding 1.5m deep	m <sup>2</sup>	5 374	
	Core 2452	Nor 1314	Sou 1608	
	<b>Keeping excavations free of water:</b>			
8	Allow for keeping excavations free of water	Item		
	Core 1			
	<b>FILLING</b>			
	<b>Earth filling selected from the excavated material, deposited in layers not exceeding 150mm thick, watered and consolidated to 95% modified AASHTO dry density as backfilling:</b>			
9	Backfilling to trenches, holes, etc.	m <sup>3</sup>	1 175	
	Core 570	Nor 298	Sou 307	
	<b>Earth filling supplied by the contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 95% modified AASHTO dry density as filling in foundation:</b>			
10	Filling to trenches, holes, etc.	m <sup>3</sup>	344	
	Core 187	Nor 80	Sou 77	
	<b>Prescribed density tests on filling required by the engineer:</b>			
11	Modified AASHTO Density test	No	376	
	Core 274	Nor 42	Sou 60	
	<b>CARTING AWAY</b>			
	<b>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</b>			
12	Surplus material from excavations to a dumping site to be located by the contractor	m <sup>3</sup>	3 119	
	Core 1932	Nor 572	Sou 615	
	<b>Soil poisoning:</b>			
13	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m <sup>2</sup>	450	
	Core 450			
14	TO bottoms and sides of trenches	m <sup>2</sup>	248	
	Core 248			
	Carried to Collection			R
Section No. 2				
Bill No. 1				
Foundations (provisional)				

		Unit	Quantity	Rate	Amount
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
<b>20Mpa/19mm Unreinforced concrete cast against excavated surfaces:</b>					
15	Surface blinding under footings and bases	m <sup>3</sup>	132		
	Core 71                      Nor 30                      Sou 31				
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
<b>25Mpa/19mm Reinforced concrete:</b>					
16	Footings	m <sup>3</sup>	17		
	Core 17				
17	Column bases	m <sup>3</sup>	583		
	Core 308                      Nor 135                      Sou 140				
<b><u>REINFORCED CONCRETE IN/ON FORMWORK</u></b>					
<b>30Mpa/19mm Reinforced concrete:</b>					
18	Columns in foundations	m <sup>3</sup>	473		
	Core 447                      Nor 10                      Sou 16				
19	Circular columns in foundations	m <sup>3</sup>	45		
	Core 17                      Sou 28				
20	Concrete wall in foundations	m <sup>3</sup>	149		
	Core 149				
21	Lift pit surface bed	m <sup>3</sup>	2		
	Core 2				
<b><u>ROUGH FORMWORK</u></b>					
<b>Rough formwork to sides:</b>					
22	Of concrete walls in foundations	m <sup>2</sup>	344		
	Core 344				
23	Of rectangular stub columns in foundations	m <sup>2</sup>	782		
	Core 435                      Nor 137                      Sou 210				
24	Of 600mm diameter circular column 2m high	No	24		
	Core 9                      Sou 15				
<b><u>REINFORCEMENT</u></b>					
<b>Mild steel reinforcement to structural concrete work:</b>					
25	10mm Diameter bars	Tonnes	2		
	Core 1                      Sou 1				
26	12mm Diameter bars	Tonnes	1		
	Core 1				
Carried to Collection					R
Section No. 2					
Bill No. 1					
Foundations (provisional)					

		Unit	Quantity	Rate	Amount
<b>High tensile steel reinforcement to structural concrete work:</b>					
27	10mm Diameter bars	Tonnes	3		
	Core 1		Nor 1		Sou 1
28	12mm Diameter bars	Tonnes	20		
	Core 8		Nor 6		Sou 6
29	16mm Diameter bars	Tonnes	29		
	Core 14		Nor 8		Sou 7
30	20mm Diameter bars	Tonnes	35		
	Core 20		Nor 8		Sou 7
31	25mm Diameter bars	Tonnes	7		
	Core 5		Nor 1		Sou 1
32	32mm Diameter bars	Tonnes	23		
	Core 17		Nor 2		Sou 4
<b>BRICKWORK IN FOUNDATIONS</b>					
<b>Brickwork of NFX bricks (14Mpa nominal compressive strength) in class I mortar:</b>					
33	230mm brick walls	m <sup>2</sup>	184		
	Core 184				
<b>Brickwork reinforcement:</b>					
34	150mm Wide reinforcement built in horizontally	m	1 103		
	Core 1103				
<b>Insulation:</b>					
35	30mm Thick high density 32-36kg/m <sup>3</sup> rigid extruded polystyrene 100% closed cell insulation board in 600mm widths with tongue and groove joints fixed vertically to perimeter concrete and brickwork in foundations all as per manufacturers specifications.	m <sup>2</sup>	3		
	Core 3				
				<b>R</b>	
Carried to Collection					
Section No. 2					
Bill No. 1					
Foundations (provisional)					



Amount

**BILL NO. 1**

**FOUNDATIONS (PROVISIONAL)**

**COLLECTION**

Page No

Brought Forward from Page

31

32

33

34

35

36

Carried To Section Summary

R

Section No. 2  
Bill No. 1  
Foundations (provisional)

Unit    Quantity    Rate    Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 2**

**EARTHWORKS**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles will apply equally to all buildings under construction on this project.

**Earthworks:**

Supplementary preambles in Foundations section shall apply equally to this section

**SITE CLEARANCE ETC**

**Site clearance:**

1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc. and trees not exceeding 200mm girth  
 m<sup>2</sup>    250 000  
 Core    250000

2 Stripping average 150mm thick layer of top soil and depositing material in prescribed stock piles on site  
 m<sup>2</sup>    15 000  
 Core    15000

**REMOVAL OF TREES ETC**

**Taking out and removing, grubbing up roots and filling in holes:**

3 Tree of girth exceeding 200mm and not exceeding 500mm girth  
 No    60  
 Core    60

4 Tree of girth exceeding 500mm and not exceeding 100mm girth  
 No    30  
 Core    30

Carried to Collection

R

Section No. 2  
 Bill No. 2  
 Earthworks

	Unit	Quantity	Rate	Amount
5 Multi-stemmed tree exceeding 1000mm and not exceeding 1500mm girth	No	10		
Core 10				
<b>Coarse river sand filling supplied by the contractor:</b>				
6 Under floors, etc.	m <sup>3</sup>	23		
Core 23				
Carried to Collection			R	

Section No. 2  
 Bill No. 2  
 Earthworks

Amount

**BILL NO. 2**  
**EARTHWORKS**  
**COLLECTION**

Page No

Brought Forward from Page

38

39

Carried To Section Summary

R

Section No. 2  
Bill No. 2  
Earthworks

Unit	Quantity	Rate	Amount
			<b>R</b>

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 3**

**CONCRETE, FORMWORK & REINFORCEMENT**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles will apply equally to all buildings under construction on this project.

**SANS Specifications:**

Specific SANS Specifications to apply to this trade include SANS 1200G; SANS 1200GE AND SANS 1200GF,

**Concrete finish:**

All exposed concrete is to have a smooth off-shutter finish.

All exposed concrete edges are to have 25 x 25mm chamfers. These chamfers are not measured separately and the contractor is to include the cost of this work into rates submitted for formwork.

All exposed concrete slab edges are to have 10 x 10mm rainwater drip around the soffit of the edge. These drips are not measured separately and the contractor is to include the cost of this work into rates submitted for formwork.

**Concrete cube tests:**

Testing by crushing concrete cubes is to be performed by a SANS accredited laboratory and results are to be submitted to the consulting engineer. At least one set of six (6) cubes shall be taken for each day of casting and from at least every 50 cubic metres of concrete placed. Three (3) cubes are to be crushed at 7 days, three (3) cubes at 14 days and four (4) cubes at 28 days. The results submitted to the engineer must contain the date of obtaining the samples and identification of the section of work to which the tests pertain.

Carried to Collection

Section No. 2  
Bill No. 3  
Concrete, Formwork & Reinforcement

	Unit	Quantity	Rate	Amount
<p>The costs of making, storing and testing of concrete test cubes as required under clause 7, Tests of SABS 1200 G, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by a SANS accredited independent laboratory nominated by the contractor to the approval of the consulting engineer. (Test cubes are measured separately).</p> <p><b>Formwork:</b></p> <p>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.</p> <p>Formwork to soffits of solid slabs, etc., shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described. Formwork to sides of bases, pile caps, ground beams, etc., will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p> <p><b>Waterproofing admixtures:</b></p> <p>Tenderer to include in pricing of exposed cantilever slabs for a crystalline waterproofing admixture such as Xypex or other approved.</p> <p><b><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></b></p> <p><b>25MPa/19mm concrete:</b></p>				
1		Plinths and pads	m <sup>3</sup>	10
		Un/A 10		
<p><b>30MPa/19mm concrete:</b></p>				
2		Slabs including beams and inverted beams	m <sup>3</sup>	3 095
		Un/A 3095		
3		Walls	m <sup>3</sup>	319
		Un/A 319		
4		Columns	m <sup>3</sup>	331
		Un/A 331		
5		Circular columns	m <sup>3</sup>	91
		Un/A 91		
Carried to Collection			R	
<p>Section No. 2  Bill No. 3  Concrete, Formwork &amp; Reinforcement</p>				

	Unit	Quantity	Rate	Amount
6 Stairs including landings, beams and inverted beams Un/A 83	m <sup>3</sup>	83		
7 Isolated beams Un/A 11	m <sup>3</sup>	11		
<b>SUNDRIES</b>				
<b>Sleeves exceeding 250mm not exceeding 500mm long cast into concrete (Provisional):</b>				
8 50mm Diameter uPVC Un/A 44	No	44		
9 75mm Diameter uPVC Un/A 25	No	25		
10 110mm Diameter uPVC Un/A 38	No	38		
11 160mm Diameter uPVC Un/A 22	No	22		
<b>Core drilling (Provisional):</b>				
12 Not exceeding 50mm diameter through 250mm thick concrete Un/A 40	No	40		
13 Not exceeding 100mm diameter through 250mm thick concrete Un/A 30	No	30		
<b>35MPa non-shrink grout:</b>				
14 Bedding approximately 30mm thick under base plates, including chamfered edges all round Un/A 1	m <sup>2</sup>	1		
<b>ROUGH FORMWORK (DEGREE OF ACCURACY II)</b>				
For the purposes of this Contract smooth formwork shall be deemed to as follows: The inner faces shall be such as will impart to the resultant concrete face a finish equivalent to one coat plaster and that would be obtained from the use of plywood faced shuttering board or special steel forms which are new when concreting commences and are thoroughly cleaned after each use. Where necessary concrete shall be rubbed down with a carborundum stone				
<b>Rough formwork to soffits</b>				
15 Landings Un/A 72	m <sup>2</sup>	72		
Carried to Collection			R	

Section No. 2  
 Bill No. 3  
 Concrete, Formwork & Reinforcement

		Unit	Quantity	Rate	Amount
16	Stairs with sloping soffits Un/A 48 <b>Boxing in rough formwork to form:</b>	m <sup>2</sup>	48		
17	Opening for lift door 2080 x 1200mm high through wall not exceeding 300mm thick Un/A 3 <b>Smooth formwork to sides</b>	m <sup>2</sup>	3		
18	Rectangular columns Un/A 2330	m <sup>2</sup>	2 330		
19	Of 400mm diameter circular columns (b) Un/A 11	m <sup>2</sup>	11		
20	Of 500mm diameter circular columns (b) Un/A 18	m <sup>2</sup>	18		
21	Of 600mm diameter circular columns Un/A 48	m <sup>2</sup>	48		
22	Inner face of shaft walls Un/A 213	m <sup>2</sup>	213		
23	Walls with total height exceeding 9,5m and not exceeding 11m above bearing level Un/A 213	m <sup>2</sup>	213		
24	Plinths and pads Un/A 20 <b>Finishing top surfaces of concrete smooth with a wood float including filling on holes with cement slurry:</b>	m <sup>3</sup>	20		
25	Surface beds and slabs, etc. Un/A 9813	m <sup>2</sup>	9 813		
26	Rub down soffits of slabs Un/A 180 <b><u>CONCRETE SUNDRIES</u></b>	m <sup>2</sup>	180		
	<b>Test cubes:</b>				
27	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional) Un/A 160	No	160		
28	Provide the sum of R10 000.00 (Ten Thousand Rand) for ad-hoc testing by Consulting Engineer Core 1	Prov Sum			
				<b>R</b>	
Carried to Collection					
Section No. 2					
Bill No. 3					
Concrete, Formwork & Reinforcement					



		Unit	Quantity	Rate	Amount
	<b>Surveys:</b>				
29	Provide the sum of R10 000.00 (Ten Thousand Rand) for ad-hoc surveys by Consulting Engineer	Prov Sum			
	Core 1				
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<b>Smooth formwork to soffits</b>				
30	Slabs propped up exceeding 3m and not exceeding 3.5m high	m <sup>2</sup>	8 077		
	Un/A 8077				
	<b>Smooth formwork to sides and soffits</b>				
31	Beams propped up exceeding 3m and not exceeding 3.5m high	m <sup>2</sup>	6 116		
	Un/A 6116				
	<b>Boxing in smooth formwork to form</b>				
32	Recess in side not exceeding 2m girth	No	40		
	Un/A 40				
33	Recess in soffit not exceeding 2m girth	No	50		
	Un/A 50				
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u></b>				
	<b>Smooth formwork to soffits</b>				
34	Landings	m <sup>2</sup>	74		
	Un/A 74				
35	Stairs with sloping soffits propped of stairs below	m <sup>2</sup>	137		
	Un/A 137				
36	Stairs propped up exceeding 1.5m and not exceeding 3.5m high	m <sup>2</sup>	32		
	Un/A 32				
37	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	80		
	Un/A 80				
	<b><u>REINFORCEMENT (PROVISIONAL)</u></b>				
	<b>Mild steel reinforcement to structural concrete work</b>				
38	10mm Diameter bars	Tonnes	16.11		
	Un/A 16.11				
	Carried to Collection			R	
	Section No. 2				
	Bill No. 3				
	Concrete, Formwork & Reinforcement				

	Unit	Quantity	Rate	Amount
<b>High tensile steel reinforcement to structural concrete work</b>				
39	10mm Diameter bars	Tonnes	9.20	
	Un/A 9.2			
40	12mm Diameter bars	Tonnes	307.86	
	Un/A 307.86			
41	16mm Diameter bars	Tonnes	93	
	Un/A 93			
42	20mm Diameter bars	Tonnes	241	
	Un/A 241			
43	25mm Diameter bars	Tonnes	34	
	Un/A 34			
44	32mm Diameter bars	Tonnes	264	
	Un/A 264			
<b>Fabric reinforcement:</b>				
45	Type 193 fabric reinforcement in concrete slabs etc.	m <sup>2</sup>	2 192	
	Un/A 2192			
46	Type 245 fabric reinforcement in concrete slabs etc.	m <sup>2</sup>	1 316	
	Un/A 1316			
47	Type 395 fabric reinforcement in concrete slabs etc.	m <sup>2</sup>	308	
	Un/A 308			
48	Type 617 fabric reinforcement in concrete surface beds etc.	m <sup>2</sup>	50	
	Un/A 50			
<b>Expansion joints with 10mm closed cell expanded polyethylene between vertical concrete and brick surfaces:</b>				
49	Not exceeding 300mm high to edges of surface beds.	m	395	
	Un/A 395			
<b><u>MOVEMENT JOINTS ETC</u></b>				
<b>Saw-cut joints:</b>				
50	6 x 30mm Saw-cut joints in top of concrete (provisional)	m	1 853	
	Un/A 1853			
<b>Horizontal joggle construction joints through concrete including debonding agent applied to one face and including reaming out 6 x 30mm joint in top surface:</b>				
51	Surface beds not exceeding 300mm thick (provisional)	m	2 815	
	Un/A 2815			
Carried to Collection				
Section No. 2				
Bill No. 3				
Concrete, Formwork & Reinforcement				
			R	

Amount

**BILL NO. 3**

**CONCRETE, FORMWORK & REINFORCEMENT**

**COLLECTION**

Page No

Brought Forward from Page

41

42

43

44

45

46

Carried To Section Summary

R

Section No. 2

Bill No. 3

Concrete, Formwork & Reinforcement



	Unit	Quantity	Rate	Amount
<p>Loadbearing brickwork to be in accordance with SANS 0164.  Bricks to have a minimum crushing strength of 15MPa.  All masonry walls to be laid to standards and tolerances in compliance with SANS 10164 and SANS 10145</p> <p><b>Mortar:</b>  Mortar to be Class II to SANS 10164, U.O.N  Masonry cement to comply with requirements of SANS 50413-1 type MC5</p> <p><b>Samples:</b>  Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 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</p> <p><b><u>BRICKWORK IN SUPERSTRUCTURE</u></b></p> <p><b>Brickwork of NFP bricks in class II mortar:</b></p>				
1	Half brick walls	m <sup>2</sup>	279	
	Core 58	Nor 147	Sou 74	
2	230mm brick walls	m <sup>2</sup>	1 421	
	Core 1421			
3	230mm brick walls circular on plan	m <sup>2</sup>	569	
	Core 460	Sou 109		
4	250mm brick walls	m <sup>2</sup>	1 028	
	Core 1028			
5	320mm brick walls	m <sup>2</sup>	9 879	
	Core 7229	Nor 754	Sou 1896	
<b>Bagging of 1:3 cement and sand mixture:</b>				
6	On brick walls	m <sup>2</sup>	154	
	Core 154			
7	On concrete walls including removing fins, irregularities, etc.	m <sup>2</sup>	105	
	Core 105			
<b><u>BRICKWORK COPINGS, SILLS, ETC:</u></b>				
<b>Brick-on-edge header course copings, sills, etc:</b>				
8	Brick coping 320mm wide.	m	226	
	Core 226			
Carried to Collection				
Section No. 2				
Bill No. 4				
Masonry				
				R

		Unit	Quantity	Rate	Amount
<b><u>BRICKWORK SUNDRIES</u></b>					
<b>Brickwork reinforcement:</b>					
9	75mm Wide reinforcement built in horizontally.	m	169		
	Core 169				
10	150mm Wide reinforcement built in horizontally.	m	7 202		
	Core 7202				
11	230mm Wide reinforcement built in horizontally.	m	26 401		
	Core 26401				
<b>Prestressed fabricated lintels:</b>					
12	100 x 70mm Lintels in lengths not exceeding 3m	m	1 238		
	Core 1238				
13	38 x 1,6mm Cramp 500mm long with one end fixed to timber and other end built into brickwork.	No	120		
	Core 120				
<b>Galvanised hoop iron cramps, ties, etc:</b>					
14	30 x 1,6mm Wall tie 500mm long with one end shot pinned to concrete and other end built into brickwork	No	1 356		
	Core 1356				
<b><u>BRICKWORK SUNDRIES</u></b>					
<b>Turning pieces to lintels etc:</b>					
15	230mm Wide turning pieces	m	91		
	Core 91				
16	320mm Wide turning pieces	m	106		
	Core 106				
<b><u>MOVEMENT JOINTS</u></b>					
<b>10mm bitumen impregnated softboard between concrete and brick surfaces:</b>					
17	Not exceeding 300mm wide, horizontally	m	443		
	Core 443				
18	Not exceeding 300mm wide, vertically	m	107		
	Core 107				
Carried to Collection					
				R	

Section No. 2  
Bill No. 4  
Masonry



	Unit	Quantity	Rate	Amount
28 Form hole not exceeding 250mm diameter in 320mm brick walls Un/A 20	No	20		
29 Form opening not exceeding 1m in girth in half brick walls Un/A 10	No	10		
30 Form opening not exceeding 1m in girth in one brick walls Un/A 5	No	5		
31 Form opening not exceeding 1m in girth in 320mm brick walls Un/A 4	No	4		
32 Form opening not exceeding 2m in girth in half brick walls Un/A 2	No	2		
33 Form opening not exceeding 2m in girth in one brick walls Un/A 2	No	2		
34 Form opening not exceeding 2m in girth in 320mm brick walls Un/A 2	No	2		
<b>Sleeves:</b>				
35 1mm Thick galvanised mild steel sleeve for 250mm diameter hole in one brick wall Un/A 20	No	20		
36 1mm Thick galvanised mild steel sleeve for 250mm diameter hole in 320mm brick wall Un/A 10	No	10		
37 1mm Thick galvanised mild steel sleeve for hole not exceeding 1m in diameter through one brick wall Un/A 5	No	5		
38 1mm Thick galvanised mild steel sleeve for hole not exceeding 1m in diameter through 320mm brick wall Un/A 5	No	5		
Carried to Collection			R	

Section No. 2  
Bill No. 4  
Masonry



**BILL NO. 4**  
**MASONRY**  
**COLLECTION**

Amount

Page No

Brought Forward from Page

48

49

50

51

52

Carried To Section Summary

R

Section No. 2  
Bill No. 4  
Masonry

Unit	Quantity	Rate	Amount
<p><b>SECTION NO. 2</b></p> <p><b>BUILDINGS</b></p> <p><b>BILL NO. 5</b></p> <p><b>WATERPROOFING</b></p> <p><b>(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)</b></p>			
<p><b>Key: Location Description:</b></p> <p>Un/A Unallocated</p> <p>Core Core Bldg (Auto)</p> <p>Nor North Block</p> <p>Sou South Block</p>			
<p><b>PREAMBLES</b></p> <p>The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill</p> <p><b>SUPPLEMENTARY PREAMBLES</b></p> <p>Note: Supplementary Preambles applicable to trades in the Building section will apply equally to all buildings under construction on this project.</p> <p><b>Waterproofing:</b></p> <p>Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee unless otherwise stated. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys.</p> <p>Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs.</p> <p>Waterproofing guarantees are required. Guarantees will be for the material and for the installation. Contractors are to only use applicators approved by the manufacturers. The manufacturers are to have a quality control system in place. Responsibility to ensure that the material, application and issue of guarantees to the principal agent will remain the responsibility of the main contractor.</p> <p><b>DAMP-PROOFING OF WALLS AND FLOORS</b></p> <p>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B):</p>			
1	In walls	m <sup>2</sup>	580
	Core	580	
		Carried to Collection	R
<p>Section No. 2</p> <p>Bill No. 5</p> <p>Waterproofing</p>			

	Unit	Quantity	Rate	Amount
2 In walls Core 144	m <sup>2</sup>	144		
3 In walls vertically at reveals Core 75 <b>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type A) sealed at laps with PVC self-adhesive tape:</b>	m <sup>2</sup>	75		
4 Under surface beds (Provisional) Core 450 <b>One layer 500 micron orange polyethylene waterproof sheeting (SANS 952-1985 type A) sealed at laps with PVC self-adhesive tape:</b>	m <sup>2</sup>	450		
5 Under surface beds (Provisional) Core 100 <b>Sika Sealoflex Professional waterproofing with a ten year guarantee applied by an approved installer in strict accordance with the manufacturer's specifications:</b>	m <sup>2</sup>	100		
6 On parapet walls (Provisional) Core 120 <b>One layer of Bituthene 3000 waterproofing:</b>	m <sup>2</sup>	120		
7 To vertical sides of walls and retaining walls (Provisional) Core 87 <b>Prepare and apply concrete primer and one layer Derbigum CG3 fully bonded waterproofing and one layer 4mm Derbigum CG4 fully bonded waterproofing laid with 75mm side and 100mm end laps with a ten year guarantee including 10mm thick softboard backing, all in strict accordance with the manufacturer's instructions:</b>	m <sup>2</sup>	87		
8 To vertical sides of retaining walls (Provisional) Core 87 <b><u>WATERPROOFING TO ROOFS, ETC</u></b> <b>Prepare and apply concrete primer and one layer Derbigum SP4 waterproofing modified bitumen membrane system laid with 75mm side and 100mm end laps with a ten year guarantee all in accordance with the manufacturer's instructions:</b>	m <sup>2</sup>	87		
9 On flat roofs Sou 324	m <sup>2</sup>	324		
10 120mm High upturns to concrete and sealing edges to brickwork or concrete including trowelled mastic bead Sou 146	m	146		
Carried to Collection			R	
Section No. 2				
Bill No. 5				
Waterproofing				

		Unit	Quantity	Rate	Amount
11	1000 x 1000mm Dressing around full bore outlet or roof drain Core 3	No	3		
12	Collar and sealing around pipe not exceeding 100mm internal diameter (provisional) Sou 3	No	3		
	<b><u>PROTECTIVE STONE DRESSING</u></b>				
	<b>Stone protection to waterproofed flat roofs:</b>				
13	19–25mm Clean crushed stone laid in 160mm thick later over waterproofing on flat roofs Core 324	m <sup>2</sup>	324		
	<b><u>PROTECTIVE ROOFING PAINT</u></b>				
	<b>Two coats Silvakote bituminous aluminium paint:</b>				
14	On waterproofing to roofs Core 324	m <sup>2</sup>	324		
	<b><u>SEALING STRIPS, JOINT SEALANTS, ETC (PROVISIONAL)</u></b>				
	<b>Silicone sealant:</b>				
15	5 x 5mm Joint between counter tops and wall tiling Core 90	m	90		
	<b>Sikaflex Pro3 iCure or other approved polysulphide sealing compound with a three year guarantee including polyethylene backing cord, bond breaker, primer, etc:</b>				
16	10 x 15mm In expansion joints in walls Core 60	m	60		
	<b>Pro-struct Dymonic NT Polyurethane elastomeric sealing compound including backing cord, bond breaker, primer, etc: or similar approved:</b>				
17	40 x 3mm in saw cut joints in floors Core 260	m	260		
18	10 x 10mm In expansion joints including raking out expansion joint filler as necessary Core 350	m	350		
19	10 x 15mm In expansion joints in floors Core 300	m	300		
20	15 x 15mm In expansion joints in walls Core 70	m	70		
21	15 x 20mm In expansion joints in walls Core 60	m	60		
	Carried to Collection				
	Section No. 2				
	Bill No. 5				
	Waterproofing				

	Unit	Quantity	Rate	Amount
<b>Compriband bitumen impregnated foam plastic joint sealing strips:</b>				
22	m	415		
Core 415				
<b>Sondor polycord expanded polyethylene foam sealant backing cords or equally approved, of suitable diameter, compressed and fitted into joint:</b>				
23	m	45		
In 20mm isolation joints between brickwork and concrete slab				
Core 45				
<b>Thioflex 600 two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc:</b>				
24	m	60		
10 x 10mm In isolation joints in floors				
Core 60				
25	m	487		
15 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary				
Core 487				
Carried to Collection			R	

Section No. 2  
 Bill No. 5  
 Waterproofing

Amount

**BILL NO. 5**

**WATERPROOFING**

**COLLECTION**

Page No

Brought Forward from Page

54

55

56

57

Carried To Section Summary

R

Unit	Quantity	Rate	Amount
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**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 6**

**ROOF COVERINGS**

**(CPAP WORK GROUP NO. 124 UNLESS OTHERWISE STATED)**

<u>Key:</u>	<u>Location Description:</u>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

**Straight cutting:**

Descriptions of all roof coverings are deemed to include for all straight cutting

**PROFILED METAL SHEETING AND ACCESSORIES**

Where roof coverings are fixed on top of rigid board insulation to purlins etc, descriptions of roof coverings shall include thereof Note that sheeting is also available in Corten steel, stainless steel, copper and aluminium

**Safintra 0.50mm thick SAFLOK 700 Colourplus AZ150 interlocking roof sheeting fixed to steel internal**

**purlins at 2000mm, and ridge/ eaves purlins at 1700mm centres using SAFLOK 700 clips screw fixed to steel purlins with Fixtite or Safintra approved wafer head self-tapping screws and including 125mm thick insulation bonded to underside of sheeting:**

1	Roof covering with pitches not exceeding 25 degrees.	m <sup>2</sup>	6 201	
	Core 4209      Nor 1992			
2	Roof covering with pitches not exceeding 25 degrees circular on elevation	m <sup>2</sup>	620	
	Core 620			

Carried to Collection

R

Section No. 2  
Bill No. 6  
Roof Coverings

	Unit	Quantity	Rate	Amount
<b>Accessories to roof sheeting comprising 0.6mm galvanised sheet iron with "Globalcoat" finish on one side with broad flute closures to suit roof profile where necessary, all in accordance with architects drawings and manufacturer's specifications:</b>				
3	m	50		
Side wall flashing girth 462mm				
Core 50				
4	m	50		
Counter flashing girth 185mm				
Core 50				
5	m	39		
Counter flashing girth 185mm circular on elevation				
Core 39				
6	m	220		
Head wall flashing girth 462mm				
Core 220				
7	m	39		
Head wall flashing girth 462mm circular on elevation				
Core 39				
8	m	215		
Apex flashing girth 660mm				
Core 215				
<b><u>ROOF INSULATION</u></b>				
<b>Roof insulation fixed concurrent with roof sheeting:</b>				
9	m <sup>2</sup>	6 201		
Factorylite Isover 50mm x 1200mm wide non-combustible flexible lightweight industrial roof insulation with white metalized foil facing, fixed under roof sheeting and over purlins, all in accordance with manufacturer's recommendations				
Core 6201				
Carried to Collection				R

Section No. 2  
 Bill No. 6  
 Roof Coverings



Amount

**BILL NO. 6**

**ROOF COVERINGS**

**COLLECTION**

Page No

Brought Forward from Page

59

60

Carried To Section Summary

R

Section No. 2  
Bill No. 6  
Roof Coverings

Unit	Quantity	Rate	Amount
Carried to Collection			R

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 7**

**CARPENTRY AND JOINERY**

**(CPAP WORK GROUP NO. 126 UNLESS OTHERWISE STATED)**

<u>Key:</u>	<u>Location Description:</u>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles applicable to trades in the Building section will apply equally to all buildings under construction on this project.

**Fixing:**

Items described as 'nailed' shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete.

Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as 'bolted', the bolts have been given elsewhere.

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, rails, etc.

Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts.

**Roof coverings:**

Roof coverings are mild steel sheeting on purlins.

Ceilings are suspended 135mm glasswool insulation laid on exposed T-system grid.

Section No. 2  
 Bill No. 7  
 Carpentry And Joinery

	Unit	Quantity	Rate	Amount
References given in descriptions refer to the respective types of trusses detailed on the architect's drawings included with the set of drawings issued by the architects accompanying these bills of quantities for tender purposes.				
Dimensions in descriptions of trusses are nominal and actual measurements are to be taken on site before design or fabrication commences.				
<b><u>SKIRTINGS</u></b>				
<b>Wrought Meranti:</b>				
1	m	647		
22 x 150mm Skirting with 22mm quarter round, nailed, punched and filled				
Core 647				
<b><u>DOORS</u></b>				
<b>Semi-solid flush doors with Meranti veneer both sides, hung to steel frames:</b>				
2	No	31		
40mm Door, size 850 x 2100mm high				
Core 31				
<b>Solid core door with Masonite linings both sides, hung to steel frame:</b>				
3	No	37		
40mm Door, size 813 x 2210mm high				
Core 37				
4	No	12		
40mm Door, size 915 x 2032mm high				
Core 12				
5	No	2		
40mm Door, size 1200 x 2100mm				
Core 2				
6	No	49		
Extra over for 600 x 300mm framed opening for metal louvre unit (louvre unit elsewhere)				
Core 49				
<b>Heavy duty solid laminated external quality flush doors:</b>				
7	No	21		
44mm Door, size 688 x 2032mm high				
Core 21				
<b>Solid Mahogany doors:</b>				
8	No	63		
44mm Glazed double door comprising timber stanchions, head, cill and glazing bars and with each leaf including four equally sized 6mm thick GSA Smartglass Clearvue glass panes, size 1500 x 2100mm high all as per Door Schedule D02				
Core 63				
Carried to Collection				R
Section No. 2				
Bill No. 7				
Carpentry And Joinery				

	Unit	Quantity	Rate	Amount
<p><b>"Varikus" or equally approved fire doors and frames fixed to brick walls, each leaf with three stainless steel 100 x 75 x 3mm hinges to a galvanised mild steel 2mm frame including all fixing with lined each side with 4mm veneer skin finish suitable for painting</b></p>				
9	No	6		
Core 6				
10	No	7		
Double fire door, size 1930 x 3040mm high				
Core 7				
11	No	12		
<p>Double <u>acoustic fire</u> door comprising of two equal leaves overall size 1830 x 2400mm high, each leaf with three stainless steel 100 x 75 x 3mm hinges to a galvanised mild steel 2mm frame including all fixing and lined each side with 4mm veneers skin finish suitable for painting</p>				
Core 12				
<b><u>FRAMES, ETC.</u></b>				
<b>Wrought Meranti:</b>				
12	m	49		
69 x 107mm Rebated frames				
Core 49				
13	m	196		
19 x 19mm Quarter round beads				
Core 196				
<b><u>TIMBER WALL CLADDING</u></b>				
<b>Wall cladding:</b>				
14	m <sup>2</sup>	202		
Timber panelling of 133 x 50mm UH61 Colour Walnut battens fixed at 50mm spacing to walls with 2000 x 3000mm high dance studio mirrors mounted on the walls				
Nor 202				
15	m <sup>2</sup>	624		
150 x 50mm UH61 Colour Walnut battens fixed at 50mm spacing to walls				
Core 231                      Nor 393				
<b><u>STAGE FLOORING</u></b>				
<p><b>91mm Oak wood Solid hardwood or oak engineered board with a hardwood wear layer on A 12mm thick WBP plywood followed by a 9mm thick water-proof solid hardwood panel is fixed on top of 75x20mm counter batten frame with a Triple layer of custom machined southern yellow pine mounted on Dual density shock dampening elastomer blocks at predetermined intervals installed complete:</b></p>				
16	m <sup>2</sup>	1 290		
On floors				
Core 246                      Nor 680                      Sou 364				
				R
Carried to Collection				
Section No. 2				
Bill No. 7				
Carpentry And Joinery				

	Unit	Quantity	Rate	Amount
17				
<p>6mm Oil tempered hardboard laid on two layers of 18mm birch plywood all glued together for installation and placed on 85 x 70mm battens and 10 x 50 x 100mm rubber pads at predetermined intervals. A layer of 90mm thick mineral wool to be placed in between battens and rubber pads. 6mm oil tempered hardboard to receive 3 coats of matt black paint:</p>				
On floors	m <sup>2</sup>	55		
Core 55				
<p>Black Harlequin Standfast vinyl performance surface laid into adhesive with seams hot welded as per manufacturer's instruction on 1089 x 2014 x 20mm Black stained birch plywood panel joined together by a special tongue and groove, which is glued together for permanent installation, supported and laid on 85 x 50 x 100mm rubber pads laid 316mm centre to centre equating to 14 per panel:</p>				
18				
On floors	m <sup>2</sup>	50		
Core 50				
<p>Multi timber flooring consisting of 24mm plywood as first layer and 22mm saligna timber as top layer laid in accordance with manufacturers instructions:</p>				
19				
On floors	m <sup>2</sup>	99		
Core 99				
20				
Edges, risers, ends and reveals exceeding 300mm high or wide and not exceeding 500mm high	m <sup>2</sup>	40		
Core 40				
<b>JOINERY FITTINGS</b>				
<b>Cupboards:</b>				
21				
Wall unit approximately 1064mm x 600mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	1		
Core 1				
22				
Wall unit approximately 2000mm x 300mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	2		
Core 2				
23				
Wall unit approximately 2120mm x 300mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	1		
Core 1				
24				
Wall unit approximately 2150mm x 600mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	1		
Core 1				
Carried to Collection				R
Section No. 2				
Bill No. 7				
Carpentry And Joinery				

	Unit	Quantity	Rate	Amount
25	Wall unit approximately 2150mm x 300mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	2	
	Core 2			
26	Wall unit approximately 3250mm x 600mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	1	
	Core 1			
27	Top hung cabinets approximately 3425mm x 300mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	1	
	Core 1			
28	Top hung cabinets approximately 4825mm x 300mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	1	
	Core 1			
29	Top hung cabinets approximately 5840mm x 300mm x 600mm high (size to be confirmed on site), all as per Architects Detail	No	1	
	Core 1			
30	Floor unit approximately 2500mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	1	
	Core 1			
31	Floor unit approximately 2550mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	1	
	Core 1			
32	Floor unit approximately 2665mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	1	
	Core 1			
33	Floor unit approximately 2700mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	2	
	Core 2			
Carried to Collection				
				R
Section No. 2				
Bill No. 7				
Carpentry And Joinery				

LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
34	Floor unit approximately 3000mm x 600mm x 900mm high (size to be confirmed on site), with 32mm thick chipboard post-formed laminated HPL counter top etc, all as per Architects Detail	No	1	
	Core 1			
35	Floor unit approximately 3000mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	2	
	Core 2			
36	Floor unit approximately 3100mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	1	
	Core 1			
37	Floor unit approximately 3250mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	1	
	Core 1			
38	Floor unit approximately 3290mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail	No	1	
	Core 1			
39	Floor unit approximately 4000mm x 600mm x 900mm high (size to be confirmed on site), with 32mm thick chipboard post-formed laminated HPL counter top etc, all as per Architects Detail	No	1	
	Core 1			
40	Floor unit approximately 4550mm x 600mm x 900mm high (size to be confirmed on site), with 32mm thick chipboard post-formed laminated HPL counter top etc, all as per Architects Detail	No	1	
	Core 1			
41	Floor unit approximately 5725mm x 600mm x 900mm high (size to be confirmed on site), with 32mm thick chipboard post-formed laminated HPL counter top etc, all as per Architects Detail	No	1	
	Core 1			
	Carried to Collection			
			R	
Section No. 2				
Bill No. 7				
Carpentry And Joinery				

LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
42				
U-shaped top counter floor unit approximately 5000mm x 600 x 365mm (size to be confirmed on site), with 32mm post-formed formica laminated worktop etc, all as per Architects Detail				
	No	1		
Core 1				
43				
U-shaped staff counter floor unit approximately 5000mm x 600mm x 775mm high (size to be confirmed on site), with 32mm post-formed formica laminated worktop, including access hatch etc, all as per Architects Detail				
	No	1		
Core 1				
<b>Worktops:</b>				
44				
32mm Thick PG Bison formica lifeseal worktop with 3mm radius square edge with 60mm round tube steel support at predetermined position including all support structures approximately 1400mm x 700mm x 720mm high (size to be confirmed on site), all as per Architects Detail				
	No	1		
Core 1				
45				
32mm Thick PG Bison formica lifeseal worktop with 3mm radius square edge with 60mm round tube steel support at predetermined position including all support structures approximately 1760mm x 700mm x 720mm high (size to be confirmed on site), all as per Architects Detail				
	No	1		
Core 1				
46				
32mm Thick PG Bison formica lifeseal worktop with 3mm radius square edge with 60mm round tube steel support at predetermined position including all support structures approximately 2079mm x 700mm x 720mm high (size to be confirmed on site), all as per Architects Detail				
	No	1		
Core 1				
<b><u>LAPTOP BOOTHS</u></b>				
<b>Booths with worktops:</b>				
47				
Laptop booth approximately 2060mm x 720mm x 1230mm high (size to be confirmed on site), with 32mm post-formed laminated worktop counter top etc, all as per Architects Details				
	No	1		
Core 1				
48				
Laptop booth approximately 2365mm x 720mm x 1230mm high (size to be confirmed on site), with 32mm post-formed laminated worktop counter top etc, all as per Architects Details				
	No	1		
Core 1				
Carried to Collection				
				R
Section No. 2				
Bill No. 7				
Carpentry And Joinery				



	Unit	Quantity	Rate	Amount
49	No	1		
Laptop booth approximately 2540mm x 750mm x 1230mm high (size to be confirmed on site), with 32mm post-formed laminated worktop counter top etc, all as per Architects Details				
Core 1				
50	No	1		
Laptop booth approximately 2860mm x 720mm x 1230mm high (size to be confirmed on site), with 32mm post-formed laminated worktop counter top etc, all as per Architects Details				
Core 1				
51	No	1		
Laptop booth approximately 3665mm x 750mm x 1230mm high (size to be confirmed on site), with 32mm post-formed laminated worktop counter top etc, all as per Architects Details				
Core 1				
<b><u>THEATRE SEATING</u></b>				
<b>Theatre seat specification: 520/540mm seat centre, 560mm seat depth, 950mm backrest height.</b>				
<b>BACKREST with cold moulded polyurethane foam (Uniblock 2 system), thickness of seat foam to be 130mm, foam test - UN-EN 1021-1:2006, upholstered in Scenic 2.1 range colour ARC - C/08, fabric to be M1/BS EN 1021-1 - Flammability, fabric 50 000 Martindale Cycles, backrest cover at the back to be varnished solid wood, 1mm, backrest to be round shaped.</b>				
<b>SEAT to have cold moulded polyurethane foam (Uniblock 2 system), thickness of seat foam to be 130mm, foam test - UN-EN 1021-1:2006, foam must have density of 65kg/m3, upholstered in Scenic 2.1 range ARC-C/08, Fabric must be M1/BS EN 1021-1 - Flammability, Fabric must be 50 000 Martindale Cycles,</b>				
<b>COVER underneath seat to varnished solid wood, 1mm , seat to have Acoustic Absorption test, seat to have automatic noiseless maintenance-free double spring tilt.</b>				
<b>LEG PANELS - Bottom of end side panel and shared armrests to be textured polypropylene 40mm, Top part of end side panels to be completely upholstered in Scenic 2.1 range ARC-C/08, Fixation to the floor must be concealed, Seats to have feet that adapts to different slopes/steps. Slope mouldings: between 0% -16%. ARMRESTS to be round-shaped capped with varnished solid wood:</b>				
52	No	692		
Theatre seat				
Core 692				
			R	

Carried to Collection

Section No. 2  
 Bill No. 7  
 Carpentry And Joinery



Amount

**BILL NO. 7**

**CARPENTRY AND JOINERY**

**COLLECTION**

Page No

Brought Forward from Page

62

63

64

65

66

67

68

69

70

Carried To Section Summary

R

Section No. 2

Bill No. 7

Carpentry And Joinery



Unit	Quantity	Rate	Amount
<p>Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)</p>			
<p><b>Suspension systems:</b></p>			
<p>Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer</p>			
<p><b>General:</b></p>			
<p>Tenderers are advised to discuss site security, access to the works, sequences of the work, programme, etc. with the Principal Contractor to ensure that no delays occur</p>			
<p>The descriptions contained in these Bills of Quantities are to be read in conjunction with the drawings and schedule of finishes as prepared by the architects, and are intended as a means of identifying the various facets of the work.</p>			
<p>Tenderers shall allow for all costs in connection with the various items taking full cognisance of drawings, schedule of finishes, and the Bills of Quantities descriptions</p>			
<p>Tenderers are advised that no site accommodation will be provided for their use. As such tenderers are to allow for this item in their submitted rates, or under the items provided for in the Preliminary &amp; General sections</p>			
<p>Furthermore, tenderers are to study and acquaint themselves with the programme regarding the phasing of the works. No additional claim for re-establishment due to phasing of the works will be entertained</p>			
<p>Final measurement of the works shall be made from either the construction drawings or from measurements taken on site to the nearest 0,01m and priced in accordance with the rates contained herein</p>			
<p>Carried to Collection</p>			
			R

Section No. 2  
 Bill No. 8  
 Ceilings, Partitions & Access Flooring

Unit    Quantity    Rate    Amount

Gyproc Control Joints may be required in certain ceilings to relieve stresses induced by expansion and contraction of the structure. Control joints shall be specified where any of the conditions listed below exist: 1. Where excessive movement is likely to occur. 2. Where a ceiling traverses movement joints within the surrounding structure. The width of the drywall control joint shall be equal to that of structure. 3. Where the building/substrate structural system/material changes. 4. Interior ceilings with perimeter relief: Control joints shall be installed so that linear dimensions between control joints shall not exceed 15m and total area between control joints does not exceed 225m<sup>2</sup>. 5. Exterior ceilings and soffit: Control joints shall be installed so that linear dimensions between control joints shall not exceed 9m and total area between control joints does not exceed 81m<sup>2</sup>. 6. A control joint is desired or incorporated as a design accent or architectural feature. Gyptone Rigitone Expansion Joints: 1. Gyptone Rigitone boards should be cut 10mm short of the perimeter walls and should not be fixed to the perimeter channel

Descriptions referred to in these Bills of Quantities are intended for REFERENCE PURPOSES ONLY and where discrepancies between the Bill items and the drawings occur, the drawings shall take preference. Such discrepancies shall be qualified by the tenderers and failure to do so shall indemnify the Employer and/or his agents against any additional costs, etc. resulting from such discrepancies

**Bulkheads:**

Bulkheads are defined as those portions of ceilings which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal services or to create architectural features.

Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 900mm. Where these dimensions are more than 900mm such portions of ceilings have been included in the appropriate general items of ceilings.

Unless otherwise described bulkheads shall be deemed to be horizontal along the length.

**Steel components:**

All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121.

Carried to Collection

R

Section No. 2  
 Bill No. 8  
 Ceilings, Partitions & Access Flooring

Unit	Quantity	Rate	Amount
<b>Proprietary suspended ceilings:</b>			
Hangers, suspension grids, lay-in panels, etc are to be in accordance with the manufacturers' recommendations.			
Electrical light fittings, diffusers, panels etc are generally lay-in units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof).			
<b>Flush plastered gypsum plasterboard suspended ceilings:</b>			
The grid shall be suspended by means of galvanised steel L-section hangers at suitable centres, securely shot-pinned or screwed to concrete, steel or wood.			
<b>Flush plastered gypsum plasterboard suspended bulkheads:</b>			
Bulkheads shall comprise galvanised steel studding of 63,5mm top and bottom tracks with vertical studs at maximum 400mm centres, pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with plasterboard screwed to studding with drywall screws at maximum 300mm centres. Boards shall be butt jointed and finished with tape and jointing compound and the whole finished with gypsum plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer.			
Descriptions shall be deemed to include any additional studs at ends and intersections, corner beads, cornices at junctions with ceilings, jointing compound, tape, etc.			
Carried to Collection			R

Section No. 2  
 Bill No. 8  
 Ceilings, Partitions & Access Flooring

	Unit	Quantity	Rate	Amount
<b><u>SUSPENDED CEILINGS</u></b>				
<p>Gyptone® BIG Curve Line 6 6.5 mm (ISO 9001 &amp; 14001 certification) fixed to Gypframe® N Cross Furring Channel using Gyproc Sharp-point Screws 25 mm at maximum 150 mm centres.</p> <p>Gypframe® N Main Bar installed at 1000 mm centres and suspended using Gyproc Galvanised Angle 25 mm x 25 mm hangers at 1000 mm centres.</p> <p>Gypframe® N Cross Furring Channel at 280 mm centres (9 notches) clipped onto Gypframe® N Main Bar.</p> <p>Apply Gyproc RhinoTape® to all joints and internal corners.</p> <p>Install Gypframe® Corner Bead to all external corners.</p> <p>Cover Gyproc RhinoTape® with 2 coats of Gyproc RhinoGlide® (locally manufactured, Greentag Level B).</p> <p>Wall Angle – Fix Gypframe® N Square Wall Angle to the wall using fixings at 300mm centres.</p> <p>Install 50 mm thick non-combustible, lightweight Energylite Glasswool insulation blanket/batts of 47.5 kg/m³ density for improved acoustic performance.</p> <p>Install in accordance with the manufacturers detail and specification</p>				
1				
Core	150	m²	150	
Carried to Collection				R
Section No. 2				
Bill No. 8				
Ceilings, Partitions & Access Flooring				





	Unit	Quantity	Rate	Amount
8	No	20		
Extra over ceiling for 600 x 600mm opening for ventilation grille/air conditioning diffuser Core 20				
<b>SUNDRIES</b>				
<b>Ceilings trims, etc:</b>				
9	m	875		
OWA Construct L-trim, plugged and screwed at centres not exceeding 200mm (provisional) Core 875				
10	m	640		
SIGMA Plaster Trim 100 satin white epoxy coated aluminium plaster trim measuring 100 x 100mm shadow reveal with 5/6/36 wall anchors at 450mm centres. Align SIGMA Plaster Trim 100 with 75 x 2,6mm alignment pins and 150 x 20 x 2mm alignment splice plates. Core 640				
<b>BULKHEADS</b>				
<b>Bulkheads formed 12.5mm thick gypsum boarding suspended not exceeding 1m below concrete soffits with 25 x 25mm aluminium angle frame with T38 aluminium tees fixed to SIGMA satin white epoxy coated SIGMA 30 aluminium plaster trim with 30 x 30mm shadow reveal at horizontal junction with wall, all in accordance with 5/6/36 wall anchors at 450mm centres aligned with 100 x 200 alignment pins, with bulkheads built against walls and hence L-shaped unless otherwise described, all to architect's instructions:</b>				
11	m	313		
300 x 300mm High bulkheads Core 76                      Nor 96                      Sou 141				
12	m	51		
500 x 300mm High bulkheads Sou 51				
13	m	320		
600 x 300mm High bulkheads Core 117                      Sou 203				
14	No	4		
6400mm Diameter irregular shaped feature bulkhead to architect's Detail Core 4				
15	No	1		
9000mm Diameter irregular shaped feature bulkhead to architect's Detail Sou 1				
Carried to Collection				R

Section No. 2  
 Bill No. 8  
 Ceilings, Partitions & Access Flooring

		Unit	Quantity	Rate	Amount
16	11000mm Diameter irregular shaped feature bulkhead to architect's Detail	No	1		
	Sou 1				
	<b>Bulkheads formed of white vinyl covered fibre cement with 25 x 25mm aluminium angle frame with T38 aluminium tees fixed to SIGMA satin white epoxy coated SIGMA 30 aluminium plaster trim with 30 x 30mm shadow reveal at horizontal junction with wall, all in accordance with 5/6/36 wall anchors at 450mm centres aligned with 100 x 200 alignment pins, all to architect's instructions:</b>				
17	300 x 300mm High bulkheads	m	408		
	Nor 322 Sou 86				
18	300 x 300mm High bulkheads circular on plan	m	32		
	Nor 32				
19	500 x 300mm High bulkheads	m	24		
	Core 24				
20	600 x 300mm High bulkheads	m	31		
	Sou 31				
21	2219 x 3334 x 300mm High bulkheads	m	3		
	Sou 3				
22	2500 x 1180 x 300mm High bulkheads	m	15		
	Nor 15				
23	2500 x 3000 x 300mm High bulkheads	m	12		
	Core 12				
	<b>Circular bulkheads formed of 12.5mm thick gypsum boarding 25 x 25mm square section aluminium frame fixed with T38 aluminium tees, 9mm thick gypsum boards, taping and jointing and flush plastered with Rhinolite, all in accordance with architect's instructions:</b>				
24	Semicircular bulkhead, size 600 radius x 300mm deep	No	1		
	Nor 1				
25	Circular bulkhead, size 1000 radius x 300mm deep	No	2		
	Nor 2				
	<b>Cornices, trims, etc. to flush plastered ceilings (Provisional):</b>				
26	Sigma Shadowline Plaster Trim 20 perimeter trim powder coated Interpond D1025 LN205P Matt Jet black Class 1	m	190		
	Core 190				
27	Sigma Shadowline Plaster Trim 20 perimeter trim powder coated Interpond D1025 LN205P Matt Jet black - Class 1 (Circular on plan)	m	85		
	Core 85				
	Carried to Collection				
	Section No. 2				
	Bill No. 8				
	Ceilings, Partitions & Access Flooring				

		Unit	Quantity	Rate	Amount
28	25mm Anodised aluminium frame with mitred corners Core 245	m	245		
	<b><u>ACOUSTIC CEILINGS</u></b>				
	<b>OWA Acoustic Brillianto A Fleece Premium biologically absorbable mineral wool ceiling tiles, NRC - 0.90, CAC - 30dB, fire classification A2-s1, d0, weight - 3.5 kg/m<sup>2</sup>, size 1200 x 600x 15mm with Square-edge and white fleece finish, laid on fire rated OWAconstruct S3 exposed demountable T24 suspension system, comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm, and all installed to manufacturer's instructions:</b>				
29	Acoustic ceiling suspended not exceeding 1m below concrete soffits Core 192                      Sou 502	m <sup>2</sup>	694		
	<b><u>SUSPENDED TIMBER CEILINGS (PROVISIONAL)</u></b>				
	<b>Timber ceilings:</b>				
30	Wooden ceiling panels at a PC Sum of R1500.00 per m2 suspended not exceeding 1m below concrete soffit with metal suspension rails and clips all as the architect's instructions Core 897                      Sou 206	m <sup>2</sup>	1 103		
31	Wooden panelled bulkhead, size 300 x 300 with panelling at a PC Sum of R1500.00 per m2 with 25 x 25mm aluminium angle frame with T38 aluminium tees fixed to SIGMA 30 aluminium plaster trim with 30 x 30mm shadow reveal at horizontal junction with wall, all in accordance with 5/6/36 wall anchors at 450mm centres aligned with 100 x 200 alignment pins suspended not exceeding 1m below concrete soffit with metal suspension rails and clips all as the architect's instructions Nor 163	m	163		
32	Wooden panelled bulkhead of irregular soffit design, size 5000 x 3000 x 300mm deep with panelling at a PC Sum of R1500.00 per m2 25 x 25mm aluminium angle frame with T38 aluminium tees fixed to SIGMA 30 aluminium plaster trim with 30 x 30mm shadow reveal at horizontal junction with wall, all in accordance with 5/6/36 wall anchors at 450mm centres aligned with 100 x 200 alignment pins suspended not exceeding 1m below concrete soffit with metal suspension rails and clips all as the architect's instructions Nor 1	No	1		
	Carried to Collection				R
	Section No. 2				
	Bill No. 8				
	Ceilings, Partitions & Access Flooring				



	Unit	Quantity	Rate	Amount
<b>High level suspended curved acoustic panels:</b>				
39				
Curved acoustic panel suspended exceeding 5 and not exceeding 7.5m below concrete soffits, size 3700mm wide comprising gypsum plasterboard fixed to curved top cross rail with resilient mount sand suspension rods, brackets and supports suspended 5 and not exceeding 7.5m below steel roof trusses, all as per Architect's Detail A on LPT Section A-A	m	166		
Core		166		
<b><u>CURTAINS</u></b>				
<b>Stage curtains:</b>				
40				
Mohair velvet curtain 10 800mm high comprising Velour Gaudi colour Mohair of 575 g/m3 weight, in widths of 1400mm with top finishes of webbing, grommets and ties, bottom finishes of flat hem and hemmed sides finishes in wag and fly French opening pattern	m	48		
Core		48		
41				
Scenery curtain 10 800mm high to architect's approval, in widths of 1400mm with top finishes of webbing, grommets and ties, bottom finishes of flat hem and hemmed sides finishes in wag and fly French opening pattern	m	144		
Core		144		
Carried to Collection			R	

Section No. 2  
 Bill No. 8  
 Ceilings, Partitions & Access Flooring

Amount

**BILL NO. 8**

**CEILINGS, PARTITIONS & ACCESS FLOORING**

**COLLECTION**

Page No

Brought Forward from Page

72

73

74

75

76

77

78

79

80

81

82

Carried To Section Summary

R

Section No. 2

Bill No. 8

Ceilings, Partitions & Access Flooring

Unit Quantity Rate Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 9**

**FLOOR COVERINGS**

**(CPAP WORK GROUP NO. 130 UNLESS OTHERWISE STATED)**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles applicable to trades in the Building section will apply equally to all buildings under construction on this project.

**Fixing:**

Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturer's of the flooring, linings, etc.

**Floor coverings:**

Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc

**Carpet tiles Belgotex "BALTIMORE" 4m broadloom manufactured from Stainproof SDX & Stainproof Eco SDX Blend (Solution Dyed Nylon). This product is to be laid in accordance with the SANS 10186 fitting code of practice laid in accordance with the manufacturers instructions**

1	On concrete floors	m <sup>2</sup>	1 622	
	Core 1510      Sou 112			
2	On timber floors	m <sup>2</sup>	525	
	Core 525			
3	On treads and risers	m <sup>2</sup>	180	
	Core 180			

Carried to Collection

R

Section No. 2  
Bill No. 9  
Floor Coverings



	Unit	Quantity	Rate	Amount
<p><b>Belgotex Accelerate 50x50cm tiles manufactured from Stainproof SDX (Solution Dyed nylon-6 for extreme conditions) laid in accordance with the manufacturers instructions and the SABS 0186-2000 fitting code of practice:</b></p>				
4				
On concrete floors	m <sup>2</sup>	300		
Core 300				
<p><b>Polyurethane foam puzzle tile 930 x 930mm approximately 1.5% rubber floor finish or similar approved:</b></p>				
5				
On concrete floors	m <sup>2</sup>	200		
Core 200				
<p><b><u>FLOOR COVERINGS</u></b></p>				
<p><b>Polyurethane foam puzzled 930 x 930mm, (+/- 1.5%) rubber floor finish or similar approved:</b></p>				
6				
On floors	m <sup>2</sup>	62		
Sou 62				
<p><b>Sikafloor - Tele grey RAL 7045 or similar approved:</b></p>				
7				
On floors	m <sup>2</sup>	62		
Core 62				
<p><b><u>MATS (PROVISIONAL)</u></b></p>				
<p><b>COBA Africa Plan A entrance matting system with 17mm standard profile height, closed construction surface type with PVC brushes and PVC scraper combination inserts, (Product Code: PLANAA0016) This product is to be laid in accordance with the SANS 10186 fitting code of practice laid in accordance with the manufacturers instructions:</b></p>				
8				
On floors	m <sup>2</sup>	20		
Core 20				
<p><b>COBA Africa Plan A entrance matting system with 10mm low profile height, closed construction surface type with alba inserts, (Product Code: PLANAA0002) This product is to be laid in accordance with the SANS 10186 fitting code of practice laid in accordance with the manufacturers instructions:</b></p>				
9				
On floors	m <sup>2</sup>	12		
Core 12				
<p><b><u>SUNDRIES</u></b></p>				
<p><b>Sundries (Provisional):</b></p>				
10				
12mm Expansion gap with Plastazote strips	m	200		
Core 200				
			R	
Carried to Collection				

Section No. 2  
 Bill No. 9  
 Floor Coverings

	Unit	Quantity	Rate	Amount
11 30mm Wide expansion gap with Plastazote strips Core 140	m	140		
12 50 x 50 x 6mm steel edge Core 66	m	66		
<b><u>NOSINGS</u></b>				
<b>Stair nosings:</b>				
13 50mm Aluminium stair nosing with rubber inserts, to architect's approval, screwed to concrete Core 509	m	509		
Carried to Collection			R	

Section No. 2  
Bill No. 9  
Floor Coverings

Amount

**BILL NO. 9**  
**FLOOR COVERINGS**  
**COLLECTION**

Page No

Brought Forward from Page

84

85

86

Carried To Section Summary

R

Section No. 2  
Bill No. 9  
Floor Coverings

Unit	Quantity	Rate	Amount
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**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 10**

**IRONMONGERY**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PROVISION FOR IRONMONGERY**

The contractor will be issued an Ironmongery Schedule and is to obtain three quotations from approved suppliers, add labour and other costs and submit to the Principal Agent and Quantity Surveyor a full set of rate buildups. Ordering of materials and execution of work is only to proceed after written instruction is received from the Principal Agent:

- 1 Provide the sum of R630 000.00 (Six Hundred and Thirty Thousand Rand) for installation of ironmongery.

Item

Core 1

Carried To Section Summary

R

Section No. 2  
 Bill No. 10  
 Ironmongery

Unit    Quantity    Rate    Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 11**

**STRUCTURAL STEELWORK (PROVISIONAL)**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles applicable to trades in the Building section will apply equally to all buildings under construction on this project.

**Descriptions:**

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

**STRUCTURAL STEEL TESTING SPECIFICATIONS**

**Overview:**

Quality control checks must be done on all structural steel members which addresses all the elements of ISO 9002: 1994 and SANS/ISO 9001: 2008

All welding procedures, tests, qualifications and production welds should comply with the latest revision of the American Welding Society standards, code AWS D1.1

The majority of weld testing and inspection can be separated into two categories: Destructive Testing, and Non-Destructive Commonly used methods are:

**Non-Destructive Testing:**

There are numerous methods of NDT, some are reasonably simple, but others require specialist operators and expensive equipment, such as X-ray testing (for Butt Welds) and Magnetic Particle Inspection, MPI (for Fillet Welds).

Carried to Collection

R

Section No. 2

Bill No. 11

Structural Steelwork (provisional)

Unit	Quantity	Rate	Amount
<p>There are also more simple methods such as dye penetrant testing, which can be carried out with minimal equipment, and in most workshops.</p>			
<p><b>Destructive testing:</b></p>			
<p>Destructive testing is usually a cheaper method of inspection. It lends its self to mass produced parts, where sacrificing one or two components for testing is acceptable. It is quite useful for setting up welding equipment. It is also a good learning tool during training courses, as it allows the students to do lots of testing at minimal cost, and is often easier to understand than some of the NDT methods. The two most common tests used in training are Macro Etch testing, and Root and Face bend testing.</p>			
<p><b>Load testing:</b></p>			
<p>A load test on this part of the structure may be required on certain welds to check for consistency.</p>			
<p><b>Testing of welds:</b></p>			
<p>X-ray testing for Butt welds, 100% for all critical welds as identified by the Structural Engineer and 10% for the rest of the welds</p>			
<p>Magnetic Particle Inspection (MPI) for fillet welds</p>			
<p><b>GENERAL</b></p>			
<p><b>Shop Drawings:</b></p>			
<p>Shop drawings must be thoroughly checked by the engineer for compliance with the original engineering drawings and must contain all details relevant to fabrication and erection.</p>			
<p>General arrangement drawings should show centroidal axes and centrelines of structural members.</p>			
<p>No fabrication or erection should take place before the relevant drawings have been approved by the engineer.</p>			
<p><b>HSSE Requirements:</b></p>			
<p>Provide an overall Health and Safety Specification and ensure the Principal Contractor's OHS programme is implemented.</p>			
<p><b>BOQ Requirements:</b></p>			
<p>The BOQ requirements are as follows:</p>			
<p>The Contractor must allow in his tender for:-</p>			
<p>a) Temporary struts and bracing during erection.</p>			
<p>b) Workshop drawings.</p>			
<p>Carried to Collection</p>			
<p>Section No. 2 Bill No. 11 Structural Steelwork (provisional)</p>			
			R

	Unit	Quantity	Rate	Amount
<p>c) X-ray testing for welded connections, will be required by the Structural Engineer.</p>				
<p>Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.</p>				
<p><b>Note:</b></p>				
<p>The Contractor shall be responsible for preparing fabrication/shop drawings. The Structural Engineer will require a minimum of 5 working days for approval of the drawings prior to fabrication.</p>				
<p>The Contractor shall be responsible for final verification of all steel work dimensions before manufacturing any component on or off site.</p>				
<p>The Contractor shall be responsible for submitting a method statement to the Structural Engineer for the erection of the steel work together with the programme of works.</p>				
<p><b>All steelwork must comply with the following:</b></p>				
<p>All material and workmanship must comply with the latest SANS 1200H</p>				
<p>All steel work to be grade S355JR unless cold formed.</p>				
<p>All welding is to be done by or under supervision of the coded welders.</p>				
<p>All welds are to be 6mm continuous fillet welds unless noted otherwise.</p>				
<p>No punching of holes will be permitted</p>				
<p>Flame cutting of holes on new members will not be permitted</p>				
<p>Flame cutting of holes on/or existing steelwork will not be permitted without the Structural Engineer's prior permission.</p>				
<p>Test certificates of steel used for the works will be requested for by the Structural Engineer</p>				
<p><b>Steelwork Surface Protection:</b></p>				
<p>All steelwork is to be in compliance with the Engineer's drawings and to be hot dipped galvanized where specified</p>				
<p>Surface Protection to use the latest ISO 1461 which is the 2022 version</p>				
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>				
<p>The Structural Steelwork shall be in accordance with the engineer's "STANDARD SPECIFICATION FOR STRUCTURAL STEEL" appended hereto as "Structural Steel Annexure A"</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 2</p>				
<p>Bill No. 11</p>				
<p>Structural Steelwork (provisional)</p>				

Unit	Quantity	Rate	Amount
<p>The Contractor is to notify the Principal Agent immediately if a conflict between the specification, architectural drawings or these bills of quantities are found</p>			
<p>Steelwork are measured to the designed sizes of the components</p>			
<p>The price for steelwork shall include all rolling margin, distance pieces, packings, additional material in welding and fixing steel members, decorative or protective and temporary aids; these shall be deemed included in the descriptions of the relevant steelwork. The price for steelwork shall also include for the preparation of all shop detail drawings as defined in the preambles and the engineering specification. The price for steelwork shall include all welding, holes, bolts, nuts, washers, rivets, bolting and riveting integral with structural steelwork as well as all required weld and strength testing, these shall be deemed included in the descriptions of the relevant steelwork.</p>			
<p>The only bolts and anchors measured separately shall be those fixing the steel members to the structural concrete work. For clarity; fixing structural steelwork members to each other is deemed included in the description of the steelwork and has thus not been measured separately and should be priced within the steelwork rates</p>			
<p>Descriptions of bolts shall be deemed to include nuts and washers</p>			
<p>Descriptions of anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p>			
<p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p>			
<p>All structural steelwork rates shall include the factory coat of paint only, all repair-, other- and final paintwork to structural steel members are included under a "Painting" heading in these Structural Steelwork bills of quantities</p>			
<p><u>Fire rating</u></p>			
<p>Fire rating of the structure is as per the fire design of the fire engineer and architect and to a minimum rating as per SANS 10400 Part T. This project is Category H3 with a minimum fire rating of 60 minutes</p>			
<p><u>Workshop fabrication drawings</u></p>			
<p>Carried to Collection</p>			<p>R</p>
<p>Section No. 2                      Bill No. 11                      Structural Steelwork (provisional)</p>			



	Unit	Quantity	Rate	Amount
<p>The contractor is to submit fabrication drawings for all design and supply items to the engineer for review prior to start of construction of these items. The contractor is to allow 5 working days for review of fabrication drawings</p>				
<p><u>Trade names</u></p>				
<p>Where manufacturer's products are specified and equivalent alternative product may be used after prior written approval from the engineer. A full specification document of the alternative product is to be provided</p>				
<p><u>Fabrication and erection</u></p>				
<p>All structural steelwork is to be fabricated and erected in accordance with BS 1821, SANS 2001-CS1 and the project specification</p>				
<p><u>Steel grades</u></p>				
<p>All structural steelwork shall have a minimum yield stress as set out below:</p>				
<p>a) Plates and hot rolled sections: S355JR</p>				
<p>b) Hollow sections: S355</p>				
<p>c) Cold rolled sections: Commercial (minimum 200MPa yield stress)</p>				
<p>d) Angles up to 50 x 50mm size can be commercial grade (minimum 200MPa yield stress)</p>				
<p><u>Splicing and connections</u></p>				
<p>If splices are required in members for transport or fabrication constraints, proposals are to be submitted to the engineer for approval prior to fabrication commencing</p>				
<p>All connections are to have plates, welds, bolts or anchors as specified by the engineer. Alternative anchors may be used if approved by the engineer</p>				
<p>Minimum edge distance and spacing of bolts are to be as SANS 10612 unless otherwise noted. Mechanical and chemical anchors are to have minimum edge distances and spacings as required by the manufacturer for specified loads</p>				
<p>Welding to comply with AWS D1.1-90 specification and to be carried out by certified welders. On site fillet welding is permitted but it to be kept to a minimum</p>				
<p><u>Corrosion protection</u></p>				
<p>Corrosion protection is to be as follows unless otherwise described or noted:</p>				
<p>a) Above ground concealed: Type – IC</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 2</p>				
<p>Bill No. 11</p>				
<p>Structural Steelwork (provisional)</p>				

	Unit	Quantity	Rate	Amount
b) Above ground visible internal: Type – IV				
c) Above ground visible external: Type – ED				
d) Underground: 45mm concrete encasement or Type–EET paint system				
<b><u>STEEL COLUMNS AND BEAMS</u></b>				
<b>Welded and bolted columns and beams in single lengths with flat base, cap, bearer and connection plates</b>				
1 203 x 133 x 25kg/m Universal beam section column	Tonnes	1.10		
Un/A 1.1				
2 219 x 4,0mm Thick circular hollow section steel post	Tonnes	1.50		
Un/A 1.5				
<b><u>STEEL ROOF TRUSSES</u></b>				
<b>Welded lattice roof trusses of square hollow section rafters, tie beams, rails, struts, braces, cleats, etc and flat section bearer, gusset and connection plates, bolted to steel</b>				
3 Truss Type 1	Tonnes	2.16		
Un/A 2.16				
4 Truss Type 2	Tonnes	7.46		
Un/A 7.46				
5 Truss Type 3	Tonnes	1.76		
Un/A 1.76				
6 Truss Type 4	Tonnes	6.20		
Un/A 6.2				
7 Truss Type 5	Tonnes	2.64		
Un/A 2.64				
8 Truss Type 6	Tonnes	9.24		
Un/A 9.24				
9 Truss Type 7	Tonnes	6.48		
Un/A 6.48				
10 Truss Type 8	Tonnes	1.42		
Un/A 1.42				
11 Truss Type 9	Tonnes	6.62		
Un/A 6.62				
<b><u>STEEL RAFTERS</u></b>				
<b>I-Beam rafters:</b>				
12 IPE 200 rafters	Tonnes	4.18		
Un/A 4.18				
Carried to Collection			R	
Section No. 2				
Bill No. 11				
Structural Steelwork (provisional)				

		Unit	Quantity	Rate	Amount
13	200 x 75mm Parallel flange channel rafters	Tonnes	0.83		
	Un/A 0.83				
14	203 x 166 x 30kg/m Rafter	Tonnes	9.30		
	Un/A 9.3				
15	254 x 146 x 37kg/m Rafter	Tonnes	2.42		
	Un/A 2.42				
16	305 x 165 x 40kg/m Rafter	Tonnes	4.93		
	Un/A 4.93				
17	356 x 171 x 45kg/m Rafter	Tonnes	6.38		
	Un/A 6.38				
<b><u>GALVANISED STEEL PURLINS, GIRTS, BRACING</u></b>					
<b>Galvanised purlins and girts, bolted to cleats:</b>					
18	89 x 4.0mm Thick circular hollow section bottom chord tie	Tonnes	12.33		
	Un/A 12.33				
19	200 x 75 x 20 x 2.5mm Cold formed lipped channel section purlins	Tonnes	38.74		
	Un/A 38.74				
<b>Bracing and anti-sag rails with flat connection plates, welded and bolted</b>					
20	50 x 50 x 3mm Angle section anti-sag bars	Tonnes	20.83		
	Un/A 20.83				
21	60 x 60 x 6mm Angle section knee bracing	Tonnes	4.95		
	Un/A 4.95				
22	80 x 80 x 8mm Angle section roof bracing	Tonnes	15.06		
	Un/A 15.06				
<b><u>ENTRANCE CANOPY</u></b>					
<b>Hot dipped galvanised mild steel support members fixed to brickwork and concrete:</b>					
23	285 x 285 10mm Square hollow section column	Tonnes	5.50		
	Un/A 5.5				
24	200 x 75 x 20 x 2.5mm Cold formed lipped channel section purlins circular on plan	Tonnes	9.44		
	Un/A 9.44				
25	Entrance canopy trusses	Tonnes	22.30		
	Un/A 22.3				
Carried to Collection					R
Section No. 2					
Bill No. 11					
Structural Steelwork (provisional)					



LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
35 200mm Diameter rainwater pipes Un/A 344	m	344		
36 Extra over rainwater pipe for bend Un/A 63	No	63		
37 Extra over rainwater pipe for shoe Un/A 30	No	30		
38 Extra over rainwater pipe for eaves or plinth offset Un/A 30	No	30		
39 Spreader for 200mm pipe 600mm long Un/A 9	No	9		
Carried to Collection			R	
Section No. 2 Bill No. 11 Structural Steelwork (provisional)				

Amount

**BILL NO. 11**

**STRUCTURAL STEELWORK (PROVISIONAL)**

**COLLECTION**

Brought Forward from Page

Page No

89

90

91

92

93

94

95

96

97

Carried To Section Summary

R

Section No. 2

Bill No. 11

Structural Steelwork (provisional)

Unit      Quantity      Rate      Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 12**

**METALWORK**

**(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles applicable to trades in the Building section will apply equally to all buildings under construction on this project.

**Descriptions:**

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 Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described. Descriptions to include all powder coated aluminium frames, subframes, weather seals, aesthetic seals, fixings, brackets, weather angles, flashings, insulation, glazing and protection

**Fenestration:**

This is a design, supply and install contract based on the contract drawings that indicate the design intent, including the Architects drawings and details. Design and supply responsibilities: Architect – Concept design– Preparation of concept drawings, sketches, etc. – Review of the contractor’s shop drawings– Inspection of fabrication and installation on a sample basis. Shopfront contractor – Detailed design, shop detailing, procurement, fabrication, assembly, setting out and installation – Carry out of testing and sourcing of samples– Perimeter seals against adjacent concrete or brickwork– Quality control

Carried to Collection

Section No. 2  
Bill No. 12  
Metalwork

R

	Unit	Quantity	Rate	Amount
<p>Generally All contractors executing the aluminium work must be "AAAMSA" registered members The drawings issued with this document do not necessarily contain all the information which may be relevant to this contract and the tenderer is advised to visit the offices of the Architect, by appointment and study all drawings related to this contract. No claim whatsoever will be entertained should the tenderer fail to heed this advice</p> <p>Rates for glazed aluminium internal shopfronts shall include for the following:</p> <p>(a) All design including proof of conformance/ compliance with specifications and the furnishings of required tests/ guarantees.</p> <p>(b) Provision of all fixed / opening lights/sashes, fittings, hinges, seals and glazing beads</p> <p>(c) All ironmongery as implied and specification</p> <p>(d) Glazing complete in accordance with SANS 10400-N, SANS 10400-XA</p> <p>(e) All costs with regards to the Employment of a professional engineer who is fully responsible for the design of the internal shopfronts installation together with all support work as necessary</p> <p>(f) Provision of a waterproofing guarantee</p> <p>(g) Completion of a design indemnity letter provided by the Architect</p> <p>(h) Provision of shop drawings for Principal Agent / Architect's approval</p> <p>(i) Approval by the Architect of the aluminium profile and colour sample prior to manufacturing</p> <p>(j) Allowance in design for tolerances to cater for expansion and contraction of aluminium</p> <p>(k) Fixing complete into preformed openings</p> <p>(l) Sealing all joints between aluminium sections and wall, floor and ceiling finishes on both sides with sealant that is compliant with the Specification and leave joints perfectly watertight</p> <p>(m) Suitably protecting all exposed surfaces by an approved method such protection is to be removed at completion of the contract and all work is to be cleaned down and left perfect</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 2            Bill No. 12            Metalwork</p>				



	Unit	Quantity	Rate	Amount
<p>(n) Contractor to provide Architect with guarantee for workmanship provided</p> <p>The quantities have been measured on an overall basis taking into account that the drawings will be issued to the tenderers and tenderers will be producing their own designs Accordingly the measurements are not in accordance with the Standard System of measurement</p> <p>The simplified overall basis of measurement applied herein is intended to provide a basis for tenders to be based upon the same basic quantities and for final measurement and valuation of the works as executed</p> <p>It is, furthermore, the only basis of measurement upon which final remeasurement and valuation will be made</p> <p>If tenderers require any additional items to be measured or taken into account in remeasurement they are to set these out at the end of this Bill in the space provided and include the cost in their tender. Tenders and rate will be assumed to include all sundry items and everything necessary for the completion of the work in accordance with the intent of the design</p> <p>Contractor shall supply all scaffolding, hoisting and craneage necessary</p> <p>Tenderers are referred to the following Architect's drawings and details, annexed to these bills of quantities for tender purposes and to be read in conjunction with these bills of quantities</p> <p><b>Metal / Glass Balustrading:</b></p> <p>This is a design, supply and install contract based on the contract drawings that indicate the design intent, including the Architects drawings and details Design and supply responsibilities: Architect – Concept design– Preparation of concept drawings, sketches, etc. – Review of the contractor’s shop drawings– Inspection of fabrication and installation on a sample basis. Metal / Glass Balustrading contractor – Detailed design, shop detailing, procurement, fabrication, assembly, setting out and installation – Carry out of testing and sourcing of samples– Quality control</p> <p>Generally The drawings issued with this document do not necessarily contain all the information which may be relevant to this contract and the tenderer is advised to visit the offices of the Architect, by appointment and study all drawings related to this contract. No claim whatsoever will be entertained should the tenderer fail to heed this advice</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 2 Bill No. 12 Metalwork</p>				

Unit	Quantity	Rate	Amount
(e) Completion of a design indemnity letter provided by the Architect			
(f) Provision of shop drawings for Principal Agent / Architect's approval			
(g) Approval by the Architect of all samples prior to manufacturing			
(h) Allowance in design for tolerances to cater for expansion and contraction			
(i) Secure fixing complete to floors, walls, etc.			
(j) Suitably protecting all exposed surfaces by an approved method such protection is to be removed at completion of the contract and all work is to be cleaned down and left perfect			
(k) Contractor to provide Architect with guarantee for workmanship provided			
Rates for metal / glass balustrading shall include for the following:			
(a) All design including proof of conformance/ compliance with specifications and the furnishings of required tests/ guarantees.			
(b) Design in accordance with the following SANS regulations: SANS 10104SANS 10400 PARTS A, B, D, N, S, & SANS 10160-2 & 10160-3SANS 10137SANS 10263-1			
(c) Upon completion and testing, issue of SANS 10400-A FORM 3 document by the responsible party.			
(d) All costs with regards to the employment of a professional engineer who is fully responsible for the design of the metal / glass balustrading, should this be necessary.			
If tenderers require any additional items to be measured or taken into account in remeasurement they are to set these out at the end of this Bill and include the cost in their tender. Tenders and rate will be assumed to include all sundry items and everything necessary for the completion of the work in accordance with the intent of the design			
<b>Descriptions:</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 to include all aesthetic seals, fixings, brackets and protection			
Carried to Collection			R
Section No. 2			
Bill No. 12			
Metalwork			

Unit	Quantity	Rate	Amount
<p><b>Dimensions:</b></p> <p>The contractor is to check dimensions on site before manufacturing any metalwork items.</p> <p><b>Burglar bars:</b></p> <p>Galvanised mild steel burglar bars are to be purpose made in strict accordance with the schedules and detail drawings with all steelwork to be grade 300 W and comply with requirements of SABS 1431 with contractor to be solely responsible for final verification of steel work dimensions prior to manufacturing of any components on and off site and hot dip galvanising to ISO 1461:1999 on fabricate iron and steel articles.</p> <p><b>Aluminium windows:</b></p> <p>Aluminium windows, doors, shopfronts and viewing panels are to be in accordance with the Window and Door Schedules as set out in the documentation issued to all tenderers.</p> <p>All aluminium frame and glazing work to comply with AAAMSA performance criteria AO, glazing in accordance with SANS 10160, SANS 10137, SANS 10400 (Part N of Section 3), all in accordance with AAAMSA Selection Guide for Glazed Aluminium Architectural Aluminium Products.</p> <p>Windows to be natural anodised aluminium as per schedule (NBR and SABS codes, applicable). Windows to be installed to manufacturer's specifications. Aluminium to be manufactured and installed by registered A.A.A.M.S.A members only and must have the appropriate AAMSA Test Performance Certification for the specific types of windows applicable to this project. Contractor to supply compliance certificates.</p> <p>A first off sample is to be approved and will set the bench mark for the project. Manufacturer's metal certificate to be issue to architect on first off sign-off. A manufacturers AAAMSA test certificate to be issued to architect. Windloading of a minimum of 15kPa shall be allowed for in accordance with SANS 613.</p> <p>Unless otherwise stated all glass to windows to be 6.38mm 17,5kg/m<sup>2</sup> laminated clear safety glass as per SANS 10160/10; 10137/02; 10400/10 (part N of sec 3); 1263-1/06. Glass in doors and side lights to be 6.38mm laminated safety glass. Glass to bathroom windows to be obscure laminated glass to architects approval.</p>			R
Carried to Collection			

Section No. 2  
 Bill No. 12  
 Metalwork

Unit	Quantity	Rate	Amount
<b>Window protection during construction:</b>			
All windows are to have a plastic covering with a low-tak adhesive covering during building process for protection against scratches and other damage. To be removed on architects approval.			
<b>Aluminium shopfronts:</b>			
New purpose made Clip 15 aluminium Shopfront System or other approved is to be used for this project. A first off sample is to be approved and will set the bench mark for the project. Manufacturer's metal certificate to be issue to architect on first off sign-off.			
A manufacturers AAAMSA test certificate to be issued to architect. Windloading of 1.0KN/m shall be allowed for in accordance with SANS 613.			
Shopfronts to be natural anodised aluminium as per schedule (NBR and SABS codes, applicable). Shopfronts to be installed to manufacturer's specifications. Aluminium to be manufactured and installed by registered A.A.A.M.S.A members only and must have the appropriate AAMSA Test Performance Certification for the specific types of shopfronts and stackable doors applicable to this project. Contractor to supply compliance certificates.			
<b>Aluminium doors:</b>			
Aluminium windows, doors, shopfronts and viewing panels are to be in accordance with the Window and Door Schedules as set out in the documentation issued to all tenderers.			
All aluminium frame and glazing work to comply with AAAMSA performance criteria AO, glazing in accordance with SANS 10160, SANS 10137, SANS 10400 (Part N of Section 3), all in accordance with AAAMSA Selection Guide for Glazed Aluminium Architectural Aluminium Products.			
All Aluminium doors to be as per schedules and comply with NBR and SABS codes. Aluminium doors to be installed to manufacturer's specifications, complete with stepped damp proof membrane and required sealant externally. Aluminium to be manufactured and installed by registered A.A.A.M.S.A members only and must have the appropriate AAMSA Test Performance Certification for the specific types of doors applicable to this project. Contractor to supply compliance certificate.			
Carried to Collection			R

Section No. 2  
 Bill No. 12  
 Metalwork

	Unit	Quantity	Rate	Amount
<p>Extruded aluminium system to comply with code EN 755:2008, alloy 6063 T5 (size 2x double doors to fit shop front) extruded aluminium shopfront double door comprising CL051 hinged stiles and top rail; 2xCL051 lock rails; and CL056 (150mm) bottom rail; all in accordance with SABS standards and P.W. codes of practice as per document PW 371 A &amp; B.</p> <p>Glass in doors and side lights to be 6.38mm laminated safety glass unless otherwise specified.</p> <p><b>Door protection during construction:</b></p> <p>All glazed doors to have a plastic covering with a low-tak adhesive covering during building process for protection against scratches and other damage and only to be removed on architects approval.</p> <p><b><u>STAINLESS STEEL HANDRAILS AND BALUSTRADES</u></b></p> <p><b>Glass Balustrade Type 1 - 1100mm high above finished floor level formed of 15mm thick Tempered Clear Glass panels, or as calculated by glass balustrading specialist in panels of equivalent width to suit situation, with 50mm gap between panels, with all exposed edges polished, including 50mm Grade 316 Stainless Steel Post in between glass panels side mounted with Grade 316 stainless steel bracket, including 60mm diameter grade 316 stainless steel handrail held by stainless steel brackets fixed on steel post at 1500mm centre to centre</b></p>				
1	m	352		
Core 352				
2	m	105		
Circular on plan glass balustrade Type 1, fitted complete				
Core 105				
3	m	81		
Raking glass balustrade Type 1, fitted complete				
Core 81				
4	m	8		
Extra over glass balustrade Type 1 for closed end				
Core 8				
5	m	10		
Extra over glass balustrade Type 1 for right hand corner intersection				
Core 10				
6	m	4		
Extra over balustrade Type 2 for intersection of raking and horizontal				
Core 4				
Carried to Collection				R
Section No. 2				
Bill No. 12				
Metalwork				

	Unit	Quantity	Rate	Amount
<p><b>Metal Balustrade Type 2 - 1060mm high overall, above finished floor level, formed of 60mm nominal diameter grade 316 stainless steel handrail. The balusters, at necessary equidistant centres to suit situation, formed of 50mm nominal diameter grade 316 stainless steel posts. The eight horizontal rails beneath the handrail formed of 19mm diameter grade 316 stainless steel horizontal rails solid circular sections welded to balusters at both ends. The 50mm grade 316 stainless steel post welded to and including 200 x 40 x 10mm thick grade 316 stainless steel plates with similar finish, at necessary centres to suit situation, twice drilled, for connection to balusters, including stainless steel dome headed connecting bolts:</b></p>				
7	m	27		
		Core 27		
8	m	66		
		Core 66		
9	m	20		
		Core 20		
10	m	8		
		Core 8		
11	m	8		
		Core 8		
12	m	4		
		Core 4		
<p><b>Metal Balustrade Type 3 - 1000mm high overall, above finished floor level, formed of 60mm nominal diameter grade 316 stainless steel handrail, welded to and including 30 x 3mm thick grade 316 stainless steel cut, mitred and welded angle bracket with similar finish, at necessary centres to suit situation, together with 40 x 80 x 3mm thick grade 316 stainless steel cover plate with similar finish as indicated on Architect's drawing, fixed to wall to Architect's approval</b></p>				
13	m	39		
		Core 39		
14	m	145		
		Core 145		
			R	
Carried to Collection				
Section No. 2				
Bill No. 12				
Metalwork				

	Unit	Quantity	Rate	Amount
15				
Extra over grade 316 stainless steel handrail balustrade Type 3 for closed end	m	4		
Core 4				
16				
Extra over grade 316 stainless steel handrail balustrade Type 3 for right angle corner intersection	m	20		
Core 20				
17				
Extra over grade 316 stainless steel handrail balustrade Type 3 for knee or ramp intersection of raking and horizontal	m	20		
Core 20				
<b>Theatre timber balustrade Type 4 - constructed of various materials including and not limited to prefabricated solid saligna timber panels as cladding, including structural steel substrate, etc all in of architects approval and all in accordance with architects drawings referred to in bill items below</b>				
18				
Theatre timber balustrade with structural steel substrate	m	30		
Core 30				
19				
Theatre timber balustrade with structural steel substrate circular on plan	m	76		
Core 76				
20				
Ditto for right angle corner intersection	m	8		
Core 8				
<b><u>GLAZED ALUMINIUM WINDOWS</u></b>				
<b><u>Natural anodised extruded aluminium system to DOORS to comply with code EN 755:2008, alloy 6063 T5 (sizes as set out below) extruded aluminium shopfront doors comprising CL051-R9 WP 90mm hinged stiles; CL051-R9 WP 90mm lock stiles; CL077-R9 SP 90mm meeting stiles; CL017-R4 85mm head rail; CL 021-R6, 125mm cill rail and CL018-R4 SP 85mm mid-rail; CL100 and CL101-Dib drainage threshold cill &amp; adaptor; all in accordance with SABS standards and P.W. codes of practice as per document OW371 and glazed with 6.38mm 17,5kg/m2 clear laminated safety glass as per SANS 10160/10; 10137/02; 10400/10 (part N of sec 3); 1263-1/06 and plugged to brickwork or concrete:</u></b>				
21				
Window with two panes, size overall 900 x 900mm high in two panels with top hung opening out panel and fixed bottom panel with aluminium frame Catalogue No NPP1215 as per Window Schedule W02	No	10		
Core 10				
Carried to Collection				R
Section No. 2				
Bill No. 12				
Metalwork				

	Unit	Quantity	Rate	Amount
22 Window in single fixed panel, size overall 1200 x 2100mm high in frame Catalogue No NPP1215 as per Window Schedule W03 Core 1	No	1		
23 Fixed pane sliding window with two panes, size overall 1800 x 1500mm high with aluminium frame Catalogue No NPP1215 as per Window Schedule W01 Core 8	No	8		
24 Window with four fixed panels, size overall 2800 x 3000mm high in frame Catalogue No NPP1215 as per Window Schedule W50 Core 50	No	50		
<b>GLAZED ALUMINIUM DOORS</b>				
Note: Aluminium fabricator to ensure upright sections used are a minimum of 90mm wide to allow for fixing of ironmongery – Type R4 recommended.				
<b>Natural anodised extruded aluminium system to DOORS to comply with code EN 755:2008, alloy 6063 T5 (sizes as set out below) extruded aluminium shopfront doors comprising CL051-R9 WP 90mm hinged stiles; CL051-R9 WP 90mm lock stiles; CL077-R9 SP 90mm meeting stiles; CL017-R4 85mm head rail; CL 021-R6, 125mm cill rail and CL018-R4 SP 85mm mid-rail; CL100 and CL101-D1b drainage threshold cill &amp; adaptor; all in accordance with SABS standards and P.W. codes of practice as per document OW371 and glazed with 6.38mm 17,5kg/m2 clear laminated safety glass as per SANS 10160/10; 10137/02; 10400/10 (part N of sec 3); 1263-1/06 and plugged to brickwork or concrete:</b>				
25 Four panel sliding door, size overall 3600 x 2100mm high with two sliding panels and two fixed side lights, equipped with electric automatic sliding door opener mechanism activated by radar units mounted on both sides of the frame all as per Door Schedule D05 Core 2	No	2		
26 Four panel folding door, size 3600 x 3000mm high with four fixed aluminium framed 6.32mm thick laminated safety glass panels and four opening out top hung top panels, as per Door Schedule D08 Core 39	No	39		
Carried to Collection				R
Section No. 2				
Bill No. 12				
Metalwork				



	Unit	Quantity	Rate	Amount
27				
Four panel folding door, size 3600 x 3000mm high with two swing panels opening out comprising aluminium framed 6.32mm thick laminated safety glass panels and two fixed side panels including four fixed top panels, as per Door Schedule D09	No	1		
Core 1				
28				
Four panel folding door, size 5500 x 4000mm high with four 6.32mm thick laminated safety glass top hung structural glass panels opening outwards, with aluminium door frame Catalogue No NPP1215 as per Door Schedule D04	No	6		
Core 6				
<b>Fine gauze screens fitted to aluminium window frames:</b>				
29				
Screen for window with two panes, size overall 900 x 900mm high in two panels	No	10		
Core 10				
30				
Screen for window in single fixed panel, size overall 1200 x 2100mm high	No	1		
Core 1				
<b><u>BURGLAR BARS</u></b>				
<b>Mild steel burglar bars formed from 10mm diameter galvanised round bar mild steel in B2 pattern:</b>				
31				
Window, size overall 900 x 900mm high as per Window Schedule W02	No	10		
Core 10				
32				
Window, size overall 1200 x 2100mm high as per Window Schedule W03	No	1		
Core 1				
33				
Window, size 1800 x 1500mm high as per Window Schedule W01	No	8		
Core 8				
34				
Window, size overall 2800 x 3000mm high as per Window Schedule W11	No	50		
Core 50				
Carried to Collection				
				R

Section No. 2  
 Bill No. 12  
 Metalwork



	Unit	Quantity	Rate	Amount
<b><u>GALVANISED PRESSED STEEL COMBINATION DOORS AND FRAMES</u></b>				
<b>1.2mm Flush both sides doors:</b>				
42	No	3		
Door, size 900 x 1200mm high with rebated frame suitable for 320mm thick wall and with chromium plated mortice lock				
Core 3				
43	No	2		
Double door, size 1600 x 1200mm high with rebated frame suitable for 320mm thick wall and with chromium plated mortice lock, barrel bolt and two cabin hooks with eyes fixed to 100 x 150 x 19mm thick varnished hardwood block plugged to walls				
Core 2				
<b>1.2mm Thick Zintec steel doors:</b>				
44	No	6		
1.2mm Thick Zintec steel service duct door, size 760 x 2530mm of 45mm thick with composite Dufaylite honeycomb core and integral anti-jimmy strip				
Core 6				
<b><u>GALVANISED PRESSED STEEL TRANSFORMER ROOM DOORS AND FRAMES</u></b>				
<b>1.6mm thick Galvanised mild steel doors and frames:</b>				
45	No	4		
Door, size 1500 x 2100mm high with rebated frame suitable for one brick wall and with chromium plated barrel bolt and mortice lock				
Core 4				
<b><u>STEEL ROLLER SHUTTERS ETC</u></b>				
<b>Electrically operated roller shutter doors and frames:</b>				
46	No	1		
Galvanised mild steel heavy duty automated door with 75 x 1.2mm thick slatted curtain roller shutter for opening 2500 x 3500mm high with standard bottom rail with overhead box 457mm high, with 75mm wide guides, with extruded aluminium T-bar with rubber seal, including 4,5mm thick end plates, guide rails, etc., and with slide bolt, fixed to brick jambs and concrete lintel over				
Core 1				
Carried to Collection				R
Section No. 2				
Bill No. 12				
Metalwork				

	Unit	Quantity	Rate	Amount
47 Galvanised mild steel heavy duty automated door with 75 x 1.2mm thick slatted curtain roller shutter for opening 3500 x 4500mm high with standard bottom rail with overhead box 457mm high, with 75mm wide guides, with extruded aluminium T-bar with rubber seal, including 4,5mm thick end plates, guide rails, etc., and with slide bolt, fixed to brick jambs and concrete lintel over Core 4 <b>Automated by radar sensing both sides, electrically operated roller shutter doors and frames:</b>	No	4		
48 Electrically operated slatted roller shutter for 2500 x 3500mm high opening, including electrical connection and commissioning (electrical isolator elsewhere) Core 1	No	1		
49 Electrically operated slatted roller shutter for 3500 x 4500mm high opening, including electrical connection and commissioning (electrical isolator elsewhere) Core 4 <b>CAT LADDERS</b> <b>Mild steel cat ladders with circular safety bars:</b>	No	4		
50 Supply and install complete cat ladder at average lengths of 4000mm as per architects detail Core 8	No	8		
<b>MATT SURROUND</b> <b>Mat surround formed of 20 x 20 x 3mm angle section aluminium In:</b>				
51 2000 x 900mm Mat surround laid in floor screed Core 4	No	4		
<b>ALUMINIUM LOUVRE UNITS</b> <b>3mm Thick fixed louvre units screwed into timber doors:</b>				
52 Louvre unit with frame, size 600 x 300mm high Core 49	No	49		
<b>SHELVING (PROVISIONAL)</b> <b>Proprietary epoxy coated mild steel shelving units:</b>				
53 Floor unit approximately 4339mm x 600mm x 775mm high (size to be confirmed on site), with 32mm formica post-formed worktop counter top etc, all as per Architects Detail Core 1	No	1		
Carried to Collection			R	
Section No. 2				
Bill No. 12				
Metalwork				

	Unit	Quantity	Rate	Amount
54	L-shaped steel shelving unit approximately 3282mm x 450mm x 2560mm high and 3100mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Detail	No	1	
	Core 1			
55	L-shaped steel shelving unit approximately 6465mm x 450mm x 4725mm high and 3100mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Detail	No	1	
	Core 1			
56	U-shaped steel shelving unit approximately 3985mm x 450mm x 2560mm high and 1380mm x 450mm x 2560mm high and 3000 x 450 x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Detail	No	1	
	Core 1			
57	Steel shelving unit approximately 1900mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Details	No	1	
	Core 1			
58	Steel shelving unit approximately 2850mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Detail	No	1	
	Core 1			
59	Steel shelving unit approximately 3780mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Detail	No	1	
	Core 1			
60	Steel shelving unit approximately 3784mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Details	No	1	
	Core 1			
61	Steel shelving unit approximately 3900mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Details	No	1	
	Core 1			
	Carried to Collection			R
Section No. 2				
Bill No. 12				
Metalwork				

	Unit	Quantity	Rate	Amount
62 Steel shelving unit approximately 4100mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Details Core 1	No	1		
63 Steel shelving unit approximately 4600mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Details Core 1	No	1		
64 Steel shelving unit approximately 5100mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Details Core 1	No	1		
65 Steel shelving unit approximately 6341mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Detail Core 1	No	1		
66 Steel shelving unit approximately 6620mm x 450mm x 2560mm high (size to be confirmed on site), fixed to stainless steel shell brackets with selftapping screws etc, all as per Architects Details Core 1	No	1		
<b>Aluminium shelving:</b>				
67 Aluminium anodised decorative aluminium perforated panel approximately 3300 x 600mm high fixed to cladding with 6.5mm mirror screw type with dome etc, all as per Architects Detail Core 1	No	1		
<b>LOCKERS</b>				
68 Changeroom lockers approximately 2675mm x 450mm x 1880mm high (size to be confirmed on site), with 450 x 500 x 1800mm per locker unit with stainless steel fittings, stainless steel hinges and stainless steel padlock mechanism etc, all as per Architects Detail Core 60	No	60		
Carried to Collection				R
Section No. 2				
Bill No. 12				
Metalwork				



Amount

**BILL NO. 12**  
**METALWORK**  
**COLLECTION**

Page No

Brought Forward from Page

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

Carried To Section Summary

R

Section No. 2  
Bill No. 12  
Metalwork





	Unit	Quantity	Rate	Amount
Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints				
<b>Laying</b>				
Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
<b>Curing, seasoning and protection</b>				
Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying				
<b><u>SCREEDS</u></b>				
<b>Screeds wood floated, on concrete:</b>				
1		25mm Thick on floors and landings	m <sup>2</sup>	9 813
		Core 9813		
2		75mm Average thick laid to falls and currents on slabs	m <sup>2</sup>	324
		Sou 324		
<b><u>GRANOLITHIC:</u></b>				
<b>Granolithic steel floated, on concrete:</b>				
3		25mm Thick on floors and landings	m <sup>2</sup>	737
		Core 737		
4		25mm Thick x 75mm high skirting	m	333
		Core 333		
<b><u>INTERNAL PLASTER</u></b>				
<b>Two coat cement plaster steel trowelled, on brickwork:</b>				
5		On walls	m <sup>2</sup>	7 855
		Core 7855		
6		On narrow widths	m <sup>2</sup>	453
		Core 453		
<b>Two coat cement plaster steel trowelled, on brickwork circular on plan:</b>				
7		On walls	m <sup>2</sup>	448
		Core 448		
Carried to Collection				
Section No. 2				
Bill No. 13				
Plastering				
			R	

	Unit	Quantity	Rate	Amount
<b><u>INTERNAL PLASTER</u></b>				
<b>Cement plaster steel trowelled, on brickwork:</b>				
8	On walls	m <sup>2</sup>	15 776	
	Core 15776			
9	On narrow widths	m <sup>2</sup>	126	
	Core 126			
<b><u>EXTERNAL PLASTER</u></b>				
<b>Cement plaster steel trowelled, on brickwork:</b>				
10	On walls	m <sup>2</sup>	8 980	
	Core 8980			
11	On narrow widths	m <sup>2</sup>	101	
	Core 101			
Carried to Collection				
			R	

Section No. 2  
 Bill No. 13  
 Plastering

**BILL NO. 13**  
**PLASTERING**  
**COLLECTION**

Amount

Page No

Brought Forward from Page

117

118

119

Carried To Section Summary

R

Section No. 2  
Bill No. 13  
Plastering

Unit    Quantity    Rate    Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 14**

**TILING**

**(CPAP WORK GROUP NO. 144 UNLESS OTHERWISE STATED)**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

**Descriptions:**

Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding. Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat. Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the range of products as recommended by the manufacturer of the tiles

**Fixing:**

Tiling described as 'fixed with adhesive on power floated concrete' shall be deemed to include for approved tiling key-coat

**WALL TILING**

**600 x 300mm Duratile full bodied polished porcelain wall tiles, horizontally laid and staggered full tiles fixed with Ezee Tile Premium or similar approved adhesive (elsewhere) with straight joints in both directions jointed and flush pointed white grey tile grout:**

1	On walls				m <sup>2</sup>	3 774
	Core    1128	Nor    1794	Sou    852			

Carried to Collection

R

Section No. 2  
Bill No. 14  
Tiling

	Unit	Quantity	Rate	Amount
2 On narrow widths Core 3	m <sup>2</sup>	3		
<b><u>FLOOR TILING</u></b>				
<b>600 x 300mm Duratile full bodied polished porcelain wall tiles, horizontally laid and staggered full tiles fixed with Ezee Tile Premium or similar approved adhesive (elsewhere) with straight joints in both directions jointed and flush pointed white grey tile grout:</b>				
3 On floors and landings Core 1662 Nor 813 Sou 888	m <sup>2</sup>	3 363		
4 On stair treads and risers Core 222 Nor 78	m <sup>2</sup>	300		
<b>Porcelain floor tile skirting 100mm high fixed with adhesive on power floated concrete floor and flush pointed with tinted waterproof jointing compound (PC amount R400.00/m2 nett)</b>				
5 On floors and landings Core 200	m	200		
<b>Glass Mosaic tiles fixed with an approved tile adhesive and pointing with tinted colour grout (PC amount R2000.00/m2 nett)</b>				
6 On columns (Provisional) Core 44	m <sup>2</sup>	44		
<b>12mm Thick Dekton wall cladding on columns fixed in accordance to manufacturers instruction (PC amount R7500.00/m2 nett)</b>				
7 On columns (Provisional) Core 40	m <sup>2</sup>	40		
<b><u>NOSING, JOINT COVERS, PROTECTORS, ETC.</u></b>				
<b><u>(PROVISIONAL)</u></b>				
<b>Aluminium straight edge trim in matt silver suitable for selected glazed tile thickness at corners, changes in wall finish and mirror surrounds with strip to be securely bedded in cement-based adhesive:</b>				
8 6mm Natural anodised aluminium tiling edge trim Core 360	m	360		
9 9mm Natural anodised aluminium movement joint edge trim Core 150	m	150		
Carried to Collection			R	
Section No. 2				
Bill No. 14				
Tiling				

	Unit	Quantity	Rate	Amount
10 48mm M-Trim Code ASCW480 aluminium structural wall joint cover	m	100		
Core 100				
11 76mm M-Trim Code ASCF760 aluminium structural floor joint cover	m	100		
Core 100				
12 Kirk M-Trim Ref SSE 120 grade 316 stainless steel edge trim	m	200		
Core 200				
13 Kirk M-Trim Ref. SQE 120 grade 316 Stainless steel square edge stair nosing, plugged and counter sunk screwed into cement screed with stainless steel screws	m	300		
Core 300				
14 15 x 15mm anodised aluminium gamma wall reveal fixed to walls	m	50		
Core 50				
15 Stainless steel crash bump rail	m	30		
Core 30				
16 Straight edge trim "ASE120"	m	60		
Core 60				
Carried to Collection			R	

Section No. 2  
 Bill No. 14  
 Tiling

**BILL NO. 14**  
**TILING**  
**COLLECTION**

Amount

Page No

Brought Forward from Page

121

122

123

Carried To Section Summary

R

Section No. 2  
Bill No. 14  
Tiling



Unit    Quantity    Rate    Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 15**

**PLUMBING AND DRAINAGE**

**(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE STATED)**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

Note: Supplementary Preambles applicable to trades in the Building section will apply equally to all buildings under construction on this project.

**General**

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

Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)

**As-built drawings**

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

**PVC-U pipes and fittings**

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

Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings

Carried to Collection

Section No. 2  
 Bill No. 15  
 Plumbing And Drainage

R

Unit    Quantity    Rate    Amount

**Copper pipes**

Pipes shall be hard drawn and half-hard pipes of the class described. 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

Class 2 type. Capillary solder fittings shall comply with ISO 2016

**Reducing fittings**

Where fittings have reducing ends or branches they are described as reducing and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained

**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

**Paper wrapping to pipes**

Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings

**Sealing of edges**

Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone

**RAINWATER DISPOSAL**

Note:

For galvanised structural steel gutters and fittings see the Structural Steelwork bills in the Buildings section.

For plumbing of water supply internally and externally see civil works in the External Works section

**0.6mm Stainless steel gutters and rainwater pipes:**

1	250 x 340 x 250mm VHV roof gutters	m	16	
	Un/A 16			
2	Extra over gutter for stopped end	No	2	
	Un/A 2			

Carried to Collection

R

Section No. 2  
 Bill No. 15  
 Plumbing And Drainage

	Unit	Quantity	Rate	Amount
3	No	1		
Un/A 1				
4	m	6		
Un/A 6				
5	No	2		
Un/A 2				
6	No	1		
Un/A 1				
<b>"Safintra" Aluminium-zinc or equally approved</b>				
7	m	350		
Core 350				
8	m	190		
Core 190				
9	No	90		
Core 90				
10	No	90		
Core 90				
11	No	90		
Core 90				
<b>Class 6 uPVC rainwater vertical downpipes cast and concealed in reinforced concrete columns from roof level down to stormwater drainage points on the various levels</b>				
12	m	180		
Core 180				
13	m	240		
Core 240				
14	m	360		
Core 360				
<b>Extra over uPVC pipes for fittings</b>				
15	No	150		
Core 150				
16	No	190		
Core 190				
17	No	150		
Core 150				
18	No	15		
Core 15				
Carried to Collection			R	
Section No. 2				
Bill No. 15				
Plumbing And Drainage				

		Unit	Quantity	Rate	Amount
19	160 x 200mm Eccentric Reducer Core 35 <b>Cast iron pipes with SSN couplings</b>	m	35		
20	50mm Weep pipe 420mm long with splay-cut end, built through brickwork Core 22 <b>Fullbore outlets embedded flush with surrounding concrete surface at the lowest point of falls and crossfalls</b>	No	22		
21	110mm Diameter vertical outlets Core 10	No	10		
22	160mm Diameter vertical outlets Core 15 <b><u>SAMPLE ROOM</u></b> <b>Sample room:</b>	No	15		
23	Provide a sample room displaying all fittings for approval of the quality and standard of finishes to be achieved Core 1 <b><u>SANITARY FITTINGS</u></b> <b>Geberit:</b>	Item			
24	Bambini floor standing WC comprising WC pan with double flap white Duroplast seat Core 1	No	1		
25	Smyle Square Code 500.685.01.1 white Duroplast antibacterial wall hung WC, size 352 x 450 x 330mm high, shrouded, rimfree with double flap seat, sandwich shape and with Sofi-closing mechanism and quick release hinges Core 32	No	32		
26	Pearl Code 7300SC paraplegic semi-close coupled with 90degree outlet open rim washdown pan and matching 9 litre cistern complete with lid, fitments and purpose made chromium plated side-flush lever and Thermoset seat and cover plate Core 5	No	5		
27	Icon double fine fireclay washbasin, size 1200 x 485mm fixed with and including wall brackets Core 18	No	18		
Carried to Collection				R	
Section No. 2					
Bill No. 15					
Plumbing And Drainage					







Unit	Quantity	Rate	Amount
No	5		

60 Chairman Industries 32mm Code SR2 stainless steel dog-legged rear grab rail, plugged to wall with stainless steel screws

Core 5

Carried to Collection

R

Section No. 2  
 Bill No. 15  
 Plumbing And Drainage



**BILL NO. 15**

**PLUMBING AND DRAINAGE**

**COLLECTION**

Amount

Page No

Brought Forward from Page

125

126

127

128

129

130

131

132

Carried To Section Summary

R

Section No. 2  
Bill No. 15  
Plumbing And Drainage



	Unit	Quantity	Rate	Amount
3 Option Basic illuminated mirror, size 1200 x 600 x 42mm thick with lighting strip on top Core 20 <b>0.8mm Pilkington or similar approved shatter-resistance mirrors</b>	No	20		
4 3000mm High mirror to dance studio walls Core 132	m <sup>2</sup>	132		
Carried to Collection			R	

Section No. 2  
Bill No. 16  
Glazing

Amount

**BILL NO. 16**  
**GLAZING**  
**COLLECTION**

Page No

Brought Forward from Page

134

135

Carried To Section Summary

R

Section No. 2  
Bill No. 16  
Glazing

Unit    Quantity    Rate    Amount

**SECTION NO. 2**

**BUILDINGS**

**BILL NO. 17**

**PAINTWORK**

**(CPAP WORK GROUP NO. 152 UNLESS OTHERWISE STATED)**

<b>Key:</b>	<b>Location Description:</b>
Un/A	Unallocated
Core	Core Bldg (Auto)
Nor	North Block
Sou	South Block

**PREAMBLES**

The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill

**SUPPLEMENTARY PREAMBLES**

**Colours, etc:**

Unless otherwise described all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SANS 1091.

**ON INTERNAL FLOATED PLASTERED SURFACES**

**Prepare and apply one coat alkali resistant primer and two coats premium quality ultra matt, fully washable and stain resistant acrylic emulsion paint for interior use:**

1	On walls			m <sup>2</sup>	5 465	
	Core	4158	Nor	985	Sou	322
2	On soffits			m <sup>2</sup>	294	
	Core	294				
3	On sloping soffits			m <sup>2</sup>	324	
	Core	324				
	<b>Prepare and apply one coat "Dulux" trade alkali resistant plaster primer, and two coats "Dulux" trade 100 lowsheen or similar approved paint:</b>					
4	On walls			m <sup>2</sup>	4 209	
	Core	3903	Sou	306		

Carried to Collection

R

Section No. 2  
Bill No. 17  
Paintwork

	Unit	Quantity	Rate	Amount
<b><u>ON EXTERNAL FLOATED PLASTERED SURFACES</u></b>				
<b>One coat alkali resistant plaster primer and two coats modified acrylic fine textured emulsion paint:</b>				
5	m <sup>2</sup>	8 980		
On walls Core 8980				
<b><u>ON NEW SMOOTH CONCRETE SURFACES</u></b>				
<b>One coat "Dulux" trade alkali resistant plaster primer (full coat), and two coats "Dulux" trade 100 lowsheen or similar approved paint:</b>				
6	m <sup>2</sup>	190		
On granolithic screeds Nor 190				
7	m <sup>2</sup>	275		
On concrete soffits Core 95                      Nor 67                      Sou 113				
<b><u>ON PLASTERBOARD SURFACES</u></b>				
<b>One coat 'Plascon Professional' gypsum and plaster primer (PP700) and two finishing coats 'Plascon Professional Super Matt' (PEM 900/TSA) acrylic emulsion paint</b>				
8	m <sup>2</sup>	1 599		
On ceilings and cornices, including priming metal nailheads Core 1599				
<b><u>ON METAL SURFACES</u></b>				
<b>One coat acrylic emulsion metal primer, one coat universal undercoat and two coats super universal enamel paint on galvanised steel:</b>				
9	m <sup>2</sup>	309		
On doors and frames Core 309				
10	m <sup>2</sup>	204		
On steel gates Core 204				
<b>Prepare by cleaning for corrosion protection to SABS 1200HC - 1988 Sub clause 5.4.3.2 including thorough scrapping and wire brushing and grinding to Grade 5.3 of Swedish SIS 05590000 - 1967 with treatment removing loose mill scale rust and foreign matter and finally cleaned with a vacuum cleaner, clean, dry compressed air or clean brush leaving the surface with a pronounced metallic appearance, painted with approved rust corrosion protection, one universal undercoat and two coats of Plascon Velvaglio high gloss paint on:</b>				
11	m <sup>2</sup>	10 595		
Structural steelwork Core 10595				
			R	
Carried to Collection				
Section No. 2				
Bill No. 17				
Paintwork				

	Unit	Quantity	Rate	Amount
<b><u>ON WOOD SURFACES</u></b>				
<b>One coat 'Plascon Professional' wood primer (PP800), one coat universal undercoat and two finishing coats 'Plascon Velveglo (VLW/TVW)' gloss enamel paint:</b>				
12 On doors	m <sup>2</sup>	123		
Core 123				
13 On door frames etc.	m <sup>2</sup>	11		
Core 11				
<b>Prepare, stop and apply one coat Woodcote Suede Matt varnish diluted 20% with mineral turpentine and two coats undiluted Woodcote Suede Matt varnish, lightly sanded and wiped down between coats with all tops and bottom of doors varnished:</b>				
14 On floors	m <sup>2</sup>	1 290		
Core 1290				
15 On skirtings not exceeding 300mm wide	m	647		
Core 647				
Carried to Collection			R	

Section No. 2  
 Bill No. 17  
 Paintwork

**BILL NO. 17**  
**PAINTWORK**  
**COLLECTION**

Page No

Brought Forward from Page

137

138

139

Carried To Section Summary

R

Section No. 2  
Bill No. 17  
Paintwork



Amount

**SECTION NO. 2**

**BUILDINGS**

**SECTION SUMMARY**

Bill No.		Page
1	FOUNDATIONS (PROVISIONAL)	37
2	EARTHWORKS	40
3	CONCRETE, FORMWORK & REINFORCEMENT	47
4	MASONRY	53
5	WATERPROOFING	58
6	ROOF COVERINGS	61
7	CARPENTRY AND JOINERY	71
8	CEILINGS, PARTITIONS & ACCESS FLOORING	83
9	FLOOR COVERINGS	87
10	IRONMONGERY	88
11	STRUCTURAL STEELWORK (PROVISIONAL)	98
12	METALWORK	116
13	PLASTERING	120
14	TILING	124
15	PLUMBING AND DRAINAGE	133
16	GLAZING	136
17	PAINTWORK	140

Carried to Final Summary

R

Section No. 2  
SECTION SUMMARY

**SECTION NO. 3**  
**EXTERNAL WORKS**

Unit	Quantity	Rate	Amount
<b>SECTION NO. 3</b>			
<b>EXTERNAL WORKS</b>			
<b>BILL NO. 1</b>			
<b>EARTHWORKS, ROADS, STORMWATER</b>			
<b>PREAMBLES</b>			
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill			
<b>SUPPLEMENTARY PREAMBLES</b>			
<b>COTO Standard Specifications:</b>			
The Coto Standard Specifications for Road and Bridge Work of South Africa will apply to external work on this project			
Clashes in specifications encountered between differing documents referred to are to be immediately reported to the Principal Agent and Civil Engineer in writing. Instructions will be given re resolve the issues timeously			
<b>Clauses to apply equally:</b>			
All preambles and supplementary preambles for building work listed in the trades in the bills in the other sections of these bills of quantities will apply equally to all bills in the External Works section			
<b>Municipal services:</b>			
The contractor shall be responsible to communicate and liaise with the responsible municipal service managers with respect to services affected by work on this site and adjacent sites and the proper method of protection of these services			
All excavations are to be effectively barricaded with all applicable signage and warning lights			
<b>Defects Liability period:</b>			
The defect liability period on building and electrical work is three (3) months from the date of Works Completion. The defect liability period on mechanical plant and electrical equipment is twelve (12) months from the date of Works Completion. The defect liability period on civil works and external works is twelve (12) months from the date of Works Completion			
<b>Access:</b>			
Vehicle and pedestrian access to all occupied buildings on the site shall be maintained at all times			
Carried to Collection			
Section No. 3 Bill No. 1 Earthworks, Roads, Stormwater			

R

	Unit	Quantity	Rate	Amount
<p><b>Existing services:</b></p> <p>The contractor shall carefully identify and expose all existing services by hand prior to the commencement of the works</p> <p><b>Lateral support:</b></p> <p>All necessary precautions are to be taken with lateral support where excavations reduce the ground level on site to a lower level than adjacent sites. Precautions are also to be taken when excavating near existing structures. Strict protection of workmen at work in areas requiring lateral support is to be taken at all times</p> <p><b>Work to municipal roads:</b></p> <p>Management of traffic on and adjacent to the site affected by the works shall be in accordance with the requirements of the local traffic authority and must be timeously coordinated by the contractor with all parties.</p> <p>The consulting engineer shall be advised in writing by the contractor two days prior to commencement of any work on or near an existing public road.</p> <p>The contractor shall liaise with the roads and stormwater control divisions of the local municipality with respect to the reinstatement of roads and sidewalks. Any clash between drawings or information issued by the consulting engineers and the municipality shall be immediately communicated to the consulting engineers who shall direct the course to be followed. Instructions on this site shall only be taken from the consulting team employed as agents of the client</p> <p><b>Testing: The following tests will be required by the consulting engineers:</b></p> <p><u>Concrete Testing:</u></p> <p>At least one set of cubes per day of casting (i.e.150 x 150 x 150mm).</p> <p><u>Crushing tests:</u></p> <p>Foundations-50 m3-12 cubes.                      Floor slabs-50 m3-12 cubes.                      Columns and beams - 6 m3 - 6 test cubes.</p> <p><u>Slump tests:</u></p> <p>1 per 6 m3.</p> <p><u>Structural Steel:</u></p> <p>X-ray testing for welded connections.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 3                      Bill No. 1                      Earthworks, Roads, Stormwater</p>			R	

Unit	Quantity	Rate	Amount
<u>Bulk Earthworks compaction tests:</u>			
1 x test per 1500 m2 – OMC, Indicator, CBR.			
1 x test per 1500 m2 – G7 per 300 mm layer.			
<u>Road works compaction tests</u>			
1 x test per 1500 m2 – G7 per 200 mm layer.			
1 x test per 1500 m2 – G5 per 150 mm layer.			
1 x test per 1500 m2 – G2 per 100 mm layer.			
<u>Restricted backfill compaction tests</u>			
1 x test per 5 m2 – selected backfill per 300 mm layer.			
<u>Under floors compaction tests</u>			
1 x test per 1500 m2 – G5 per 150 mm layer.			
<u>Trenches (building services) compaction tests:</u>			
1 x density test per 30 m of trench length per 150 mm insitu layer compacted (OMC).			
1 x density test per 30 m of trench length per 300 mm layer (granular backfill) compacted (OMC).			
1 x density test per 30 m of trench length per 300 mm layer (selected backfill) compacted (OMC).			
<u>Pipework-water/fire:</u>			
Pressure test- 1 per ring main.			
<u>Pipework Sewer:</u>			
Air test –per section between manholes.			
Mirror test- per section between manholes.			
<u>Manholes:</u>			
Water tightness test- 1 per 2 manholes.			
<u>Asphalt:</u>			
1 x test per 300 m2.			
<b>The following standards and specifications shall apply to all work to be executed in external areas:</b>			
SPECIFICATIONS, DESIGN CODES AND CODES OF PRACTICE			
The following specifications and codes will apply on this project:			
SANS 1200A GENERAL			
SANS 1200C SITE CLEARANCE			
Carried to Collection			R
Section No. 3			
Bill No. 1			
Earthworks, Roads, Stormwater			



	Unit	Quantity	Rate	Amount
<p>SANS 791 Unplasticized polyvinyl chloride (uPVC) sewer and drain pipes and fittings</p> <p>SANS ISO 4427: PE100 PN12.5: HDPE Pipes</p> <p>SANS 10100 – The Structural Use of Concrete.</p> <p>SANS 10155 – Accuracy in Buildings</p> <p>SANS 10164 – The Structural Use of Masonry.</p> <p>SANS 10163 – The Structural Use of Timber.</p> <p>SANS 10162 – The Structural Use of Steel.</p> <p>SANS 10160 – The general procedures and loadings to be adopted in the design of buildings.</p> <p>SANS 1200 – Standard Specification for Civil Engineering Construction.</p> <p>SANS 10400 – The Application of the National Building Regulations.</p> <p>Road design:</p> <p>Roads pavements will be designed in accordance with UTG 3: Structural Design of Urban Roads, 1993, published by the Committee of Urban Transport Authorities;</p> <p>Geometric Design: Draft UTG 7 of 1989;</p> <p>The South African National Roads Agency Limited, “Drainage Manual–5th edition”, Pretoria, 2006 CSIR (2005), “Red Book – Human Settlement Planning and Design”, CSIR Building and Construction Technology Structural Design of Segmental Block Pavements for Southern Africa, UTG2; Structural Design of Road Pavements, TRH4 Cementitious Stabilizers in Road Construction, TRH13.</p> <p>Approved dumping site:</p> <p>The dumping or disposal sites located by the contractor for use under this contract are to be approved by the Civil Engineer and may not be utilised until written approval is provided</p> <p><b><u>PRICING</u></b></p> <p><b>Earthworks and Services as Civil Eng:</b></p>				
1	Earthworks	Item		
2	Roads, Paved Surfaces And Landscaping:	Item		
			R	
Carried to Collection				
<p>Section No. 3</p> <p>Bill No. 1</p> <p>Earthworks, Roads, Stormwater</p>				

	Unit	Quantity	Rate	Amount
3 Stormwater Drainage:	Item			
<b><u>CLEARING AND GRUBBING</u></b>				
<b>Clearing:</b>				
4 Clearing with machines and some hand labour where necessary.	Hect	4.50		
5 Clearing for new fence lines (over a width of 2,0 m)	km	2		
6 Clearing for service trenches (over the agreed width required)	m <sup>2</sup>	80		
<b>Grubbing:</b>				
7 Grubbing with machines and some hand labour where necessary	Hect	5		
8 Grubbing by hand for new fence lines (over a width of 2,0 m)	km	2		
9 Grubbing by hand for service trenches (over the agreed width required)	m <sup>2</sup>	80		
<b>Removal and grubbing of large trees and tree stumps:</b>				
10 Girth equal to or exceeding 1,0 m up to and including 2,0 m	No	10		
11 Re-clearing of previously cleared areas	Hect	5		
<b>Conservation of topsoil:</b>				
12 Stockpiling topsoil	m <sup>3</sup>	2 025		
13 Windrowing topsoil	m <sup>3</sup>	203		
<b><u>GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES</u></b>				
Trench excavation (in soft material):				
<b>Trenches up to 1,0 m wide:</b>				
14 Up to 1,0 m deep	m <sup>3</sup>	0		
<b>Extra over items C2.1.6, C2.1.8 and C2.1.16 for excavating in:</b>				
15 Hard material irrespective of depth	m <sup>3</sup>	43		
<b><u>Trench excavation using labour enhanced construction methods:</u></b>				
<b>Trenches up to 1,0 m wide (in soft material):</b>				
16 Up to 1,0 m deep	m <sup>3</sup>	100		
Backfilling of trenches:				
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				



	Unit	Quantity	Rate	Amount
<b>Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material:</b>				
17				
	m <sup>3</sup>	86		
18				
	m <sup>3</sup>	86		
19				
	m <sup>3</sup>	86		
<b>Removal and disposal of spoil material from trench excavations:</b>				
20				
	m <sup>3</sup>	129		
<b>Dealing with water during services work:</b>				
21				
	Sum	1		
22				
	Sum	1		
<b><u>DRY SERVICES</u></b>				
Supply, lay and prove ducts:				
<b>Structured wall HDPE conduits, complying with SANS 61386-24: 2005, with smooth internal surface, with push-on couplings with rubber seals, and with pilot string:</b>				
23				
	m	126		
24				
	m	63		
Bedding for ducts compacted to 90 % of MDD (100 % for sand) using material:				
<b>From commercial sources:</b>				
25				
	m <sup>3</sup>	71		
Duct accessories (markers, marking, draw wires and end caps, etc.):				
<b>Duct markers (150x150x150mm class 25MPa/19mm concrete, engraved with service symbol and encasing the end of the draw wire)</b>				
26				
	m	227		
27				
	No	63		
<b>Other accessories:</b>				
28				
	No	63		
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				

	Unit	Quantity	Rate	Amount
<b>DRAINS</b>				
Excavation for open drains:				
<b>Excavating all material situated within the following depth ranges below the surface level using conventional methods:</b>				
29		0 m to 1,5 m	m <sup>3</sup>	2 047
30		Extra over sub-item C3.1.1.1 for excavation in hard and boulder material irrespective of depth	m <sup>3</sup>	2 047
31		Excavating soft material situated 0 m to 1,0 m below the surface level using labour enhanced construction methods	m <sup>3</sup>	4 777
<b><u>Excavation, clearing and disposal of accumulated sediment in existing lined drains and drainage systems:</u></b>				
<b>Using labour enhanced construction methods:</b>				
32		Manholes and inlet and outlet structures	m <sup>3</sup>	50
33		Culvert barrels	m <sup>3</sup>	36
<b>Excavation and disposal of material for subsoil drainage systems:</b>				
34		Excavating soft material situated within 0 m to 1,5 m below the surface level using labour enhanced construction methods	m <sup>3</sup>	77
<b>Excavation and disposal of material for composite in-plane fin-drain type drainage systems using a trenching machine:</b>				
35		Trench width of 750mm and depth of 2m	m	340
<b>Impermeable backfilling to subsoil drainage systems:</b>				
36		G5 material obtained from commercial sources	m <sup>3</sup>	434
<b>Construction of banks and dykes:</b>				
37		Banks and dykes using labour enhanced construction methods	m <sup>3</sup>	2 160
<b>Natural permeable material in subsoil drainage systems (approved crushed stone):</b>				
38		Crushed stone obtained from commercial sources (19mm single graded crushed stone)	m <sup>3</sup>	107
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				

	Unit	Quantity	Rate	Amount
<b>Pipes in subsoil drainage systems:</b>				
39	m	854		
40	m <sup>2</sup>	1 281		
<b>Composite drainage systems:</b>				
41	m	340		
<b>Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems:</b>				
42	No	10		
43	No	10		
44	No	10		
45	No	20		
<b>Caps for subsoil drain pipes:</b>				
46	No	50		
47	No	8		
<b>CULVERTS</b>				
Excavation for culvert structures:				
<b>Excavating in all material situated within the following depth ranges below the surface level:</b>				
48	m <sup>3</sup>	1 046		
49	m <sup>3</sup>	215		
50	m <sup>3</sup>	24		
51	m <sup>3</sup>	468		
52	m <sup>3</sup>	719		
<b>Backfilling:</b>				
53	m <sup>3</sup>	1 034		
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				



	Unit	Quantity	Rate	Amount
69 High-tensile steel bars.	Tonnes	12.20		
70 Welded steel fabric.	Tonnes	2.05		
<b>Brickwork:</b>				
71 115 mm thick (face bricks to architect specifications)	m <sup>2</sup>	1 200		
72 230 mm thick (face bricks to architect specifications)	m <sup>2</sup>	480		
73 230 mm thick (Extra hard burnt engineering bricks)	m <sup>2</sup>	665		
74 345 mm thick (Extra hard burnt engineering bricks)	m <sup>2</sup>	177		
75 Benching	m <sup>3</sup>	82		
<b>Accessories:</b>				
76 Manhole frames (Heavy duty precast concrete)	No	54		
77 Manhole covers (heavy duty precast concrete)	No	54		
78 Step irons (Hot dip galvanised mild steel)	No	496		
79 Field inlet top structure, complete with roof, columns and apron, as detailed excluding the shaft and junction chamber	No	3		
80 4m long kerb inlet top structure complete as detailed, including kerb transitions, kerb channel, Roof, roof support, floor and walls but excluding manhole shaft and junction chamber	No	15		
<b>Cutting of concrete pipes (diameter indicated):</b>				
81 300ND class 100D	No	15		
82 450ND class 100D	No	34		
83 600ND class 75D	No	8		
84 750ND class 50D	No	4		
<b>Compaction of bedding for inlets, outlets, manholes and catchpits:</b>				
85 Extra-over sub-Item C3.2.24.1 for compaction to 93 % of MDD (depth indicated)	m <sup>3</sup>	163		
<b><u>CONCRETE KERBING AND CHANNELLING, ASPHALT BERMS, CHUTES, DOWNPIPES, CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS</u></b>				
Concrete kerbing:				
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				

Unit Quantity Rate

**Prefabricated kerbing (description of type of kerb and bedding with reference to drawing):**

86	Semi-mountable (Fig 7, SANS 927)	m	3 136
87	Side walk edge beam (Fig 10, SANS 927)	m	1 479

**Cast-in-situ kerbing:**

88	200mmx150mm Class 25MPa/19mm kerb channel	m	1 049
89	300mmx200mm Class 25MPa/19mm V-drains	m	70

**Extra over items C3.3.1 and C3.3.2 for concrete kerbing or concrete kerbing and channelling on curves:**

On curves of radii more than or equal to 5,0 m but less than 20,0 m

90	Semi-mountable (Fig 7, SANS 927)	m	470
91	Side walk edge beam (Fig 10, SANS 927)	m	222
92	200mmx150mm Class 25MPa/19mm kerb channel	m	157

**On curves with radii more than or equal to 1,0 m but less than 5,0 m**

93	Semi-mountable (Fig 7, SANS 927)	m	157
94	Side walk edge beam (Fig 10, SANS 927)	m	74
95	200mmx150mm Class 25MPa/19mm kerb channel	m	52

**On curves with radii less than 1,0 m**

96	Semi-mountable (Fig 7, SANS 927)	m	63
97	Side walk edge beam (Fig 10, SANS 927)	m	30
98	200mmx150mm Class 25MPa/19mm kerb channel	m	21

99	Extra over item C3.3.2 for drop kerbs at pedestrian crossings and driveways	m	16
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**Concrete chutes (typical designs):**

100	Prefabricated concrete chutes (200mm wide Vanstone D6 channels)	m	237
1011	Prefabricated concrete chutes (500mm wide Vanstone D10 channels)	m	465
1			
1021	300ND precast concrete Salberg slotted drain	m	402
0			
2			

Section No. 3

Bill No. 1

Earthworks, Roads, Stormwater

Amount

Carried to Collection

R

Unit Quantity Rate

**Linings for open drains:**

1031	Cast-in-situ concrete lining (class 25MPa/19mm concrete 0 trapezoidal drains) 3	m <sup>3</sup>	83
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1041	Class U2 surface finish to cast-in-situ concrete (trapezoidal 0 drain) 4	m <sup>2</sup>	825
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**Stone pitched lining (300 mm thickness):**

1051	Grouted stone pitching (trapezoidal drains) 0 5	m <sup>2</sup>	266
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**Formwork to cast-in-situ concrete lining for open drains  
(Class F2 surface finish):**

106	To sides with formwork on the internal face only	m <sup>2</sup>	66
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1071	To ends of slabs 0 7	m <sup>2</sup>	28
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1081	Sealed expansion joints in concrete and stone pitched linings 0 of open drains 8	m <sup>2</sup>	218
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1091	HDPE sheeting (0.15mm thickness) for lined open drains 0 9	m <sup>2</sup>	1 091
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**Energy dissipaters in outlet structures:**

1101	Stones set in outlet structures 1 0	m <sup>2</sup>	1.50
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**CUT MATERIALS****Compiling and implementing M&U plans for the cuttings:**

1111	Cuttings exceeding 10 000 m <sup>3</sup> up to 20 000 m <sup>3</sup> 1 1	No	1
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**Additional material investigations during the supplementary  
exploration:**

1121	Cost of additional trial pits and / or drilling and laboratory 1 testing. 2	Prov Sum	
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1131	13		Handling costs and profit in respect of item C4.2.2.1
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Section No. 3  
Bill No. 1  
Earthworks, Roads, Stormwater





	Unit	Quantity	Rate
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117	Boulder excavation class A	m <sup>3</sup>	3 150
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1181	Hard excavation (by blasting)	m <sup>3</sup>	3 150
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1  
8

**Backfilling of the unavoidable overbreak in hard and boulder excavation:**

1191	Compliant gravel material	m <sup>3</sup>	630
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1  
9

1201	Breaking down oversize material	m <sup>3</sup>	945
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2  
0

**Finishing the side slopes:**

**Cuttings:**

121	In boulder material class A and B	m <sup>2</sup>	1 600
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1221	In hard material	m <sup>3</sup>	1 800
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2  
2

1231	In soft material using labour enhanced methods of construction	m <sup>2</sup>	1 300
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3

**COMMERCIAL MATERIALS**

Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers:

**Pavement layer material:**

124	Type G5B material	m <sup>3</sup>	3 049
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125	Type G6 material	m <sup>3</sup>	2 504
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1261	Type G7 materials	m <sup>3</sup>	1 215
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2  
6

1271	Natural or crushed gravel material (G7) for an unsealed shoulder layer	m <sup>3</sup>	608
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7

**Fill material in the earthworks:**

1281	Normal or coarse fill	m <sup>3</sup>	12 700
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2  
8

Section No. 3

Bill No. 1

Earthworks, Roads, Stormwater



	Unit	Quantity	Rate
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**ROADBED****Construction of the roadbed in collapsing soil:**

1321	Non wetting-up collapsing soil roadbed construction at in-situ 3 moisture content using HEIC 2	m <sup>3</sup>	18 413
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**Construction of a levelling layer:**

1331	Over roadbed treatment in hard material compacted to 90 % 3 MDD 3	m <sup>3</sup>	483
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**FILL****Compiling and implementing M&U plans:**

134	For fills more than 10 000 m <sup>3</sup> (list all fills separately)	No	1
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**Fill construction:****Normal fill material in compacted layer thicknesses of 200 mm and less:**

1351	Compacted to 90 % of MDD 3 5	m <sup>3</sup>	19 877
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**Coarse fill material in compacted layer thicknesses exceeding 200 mm: but less than 500 mm:**

136	Compacted to 90 % of MDD	m <sup>3</sup>	3 100
137	Rock fill material all as per Clause A5.2.7.6	m <sup>3</sup>	1 000
138	Correcting rock fills that are deficient in fine material, extra over C5.2.2.4	m <sup>3</sup>	167

**Fill in sidewalk:**

1391	Fill material in sidewalk compacted to 93 % of MDD 3 9	m <sup>2</sup>	1 823
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**Breaking down oversize fill material on the road:**

1401	By normal grid rolling as per clause A5.3.7.3b) (i) to (vii) 4 0	m <sup>2</sup> /pass	3 100
1411	Removal of oversize material 4 1	m <sup>3</sup>	205

**Finishing-off fill slopes, medians and interchange areas:**

142	Fill slopes Section No. 3 Bill No. 1 Earthworks, Roads, Stormwater	m <sup>2</sup>	6 600
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**ROAD PAVEMENT LAYERS**

143 Compiling and implementing M&U plans for the construction of all the pavement layers

No

1

Amount

Carried to Collection

R

Section No. 3  
Bill No. 1  
Earthworks, Roads, Stormwater

Unit	Quantity	Rate
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**Construction of pavement layers:****Construction of layers using conventional construction methods:**

1441 Lower selected subgrade layer (layer thickness indicated) 4 compacted to 95 % of MDD 4	m <sup>3</sup>	2 210
1451 Gravel shoulder layer (150mm layer thickness) compacted to 4 95 % of MDD 5	m <sup>3</sup>	608
146 Lower subbase gravel layer (unstabilised) (layer thickness indicated) compacted to 95 % of MDD	m <sup>3</sup>	1 215
147 Upper subbase gravel layer (chemically stabilised) (layer thickness indicated) compacted to 97 % of MDD	m <sup>3</sup>	2 644

**Riding quality measurements:**

1481 Using a 3,0 m straight edge 4 8	km	1
1491 Using a rolling straight edge 4 9	km	1

**STABILISATION****Pre-treatment of gravel layers:**

150 Pre-treatment of (insert layer thickness) gravel layer	m <sup>3</sup>	2 644
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**Chemical stabilisation:**

151 Chemical stabilisation (layer thickness indicated) of pavement layers (layer to be stabilised indicated)	m <sup>3</sup>	2 644
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**Cementitious stabilisation agents for pavement layers:****Addition of cementitious stabilisation agents (specify agent separately) for pavement layers and spreading the agent using bags and labour enhancement methods:**

1521 Cement (for pavement layer) 5 2	Tonnes	146
1531 Provision and application of water for curing 5 3	Kilo litre	407

**SEGMENTAL BLOCK PAVING LAYERS****Segmental block paving:**

154154

Section No. 3

Bill No. 1

Earthworks, Roads, Stormwater

			Amount	
Concrete block paving (60mm thickness)	m <sup>2</sup>	16 713		
1551 Concrete block paving (80mm thickness)	m <sup>2</sup>	4 200		
1561 Cast-in-situ concrete edge and intermediate beams	m <sup>3</sup>	11		
Carried to Collection			<b>R</b>	
Section No. 3 Bill No. 1 Earthworks, Roads, Stormwater				

	Unit	Quantity	Rate	Amount
<b>Provision and application of approved herbicide and ant poison:</b>				
1571 Provision of materials	Prov Sum			
57				
1581 Provision of materials.	Prov Sum			
58				
159 Contractor's charges and profit added to the prime cost sum	%	30 000		
<b>Re-sanding of joints in segmental block paving:</b>				
160 Concrete BRICK paving (80mm thick blocks)	m <sup>2</sup>	16 713		
1611 Concrete block paving (indicate class, type and thickness of blocks)	m <sup>2</sup>	4 200		
61				
<b><u>PITCHING, STONEMWORK, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION</u></b>				
<b>Foundation trenches for stone masonry walls:</b>				
1621 Excavating foundation trenches in soft material using labour enhanced construction methods	m <sup>3</sup>	120		
62				
<b>Stone pitching:</b>				
163 Grouted stone pitching with mortar	m <sup>2</sup>	266		
<b>Riprap:</b>				
<b>Filter layer consisting of:</b>				
1641 Geotextile (non-woven, Bidim A4)	m <sup>2</sup>	266		
64				
<b>Provision of approved herbicide and ant poison:</b>				
1651 Provision of materials	Prov Sum			
65				
166 Provision of materials.	Prov Sum			
167 Contractor's charges and profit added to the prime cost sum	%	0		
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				



**ROAD RESTRAINT SYSTEMS**

LIMPOPO PROVINCIAL THEATRE

Erecting of guardrails at 3,81 m spacing:

Carried to Collection

**R**

	Unit	Quantity	Rate
<b>Complete galvanized system compliant to SANS 1350:</b>			
1681 On timber posts (drawing reference) 6 8	m	284	
1691 Extra over C11.4.1.1(a) and C11.4.1.1(b) for excavating holes 6 of posts using labour enhanced methods (soft and 9 intermediate)	m	284	
<b>Terminal sections for 3,81 guardrails comprising of:</b>			
1701 End wings to SANS 1350 7 0	No	8	
171 End treatments where single guardrail sections are specified (drawing reference)	No	1	
172 Extra over C11.4.1.2(d) and C11.4.1.2(e) for excavating holes for posts using labour enhanced methods (soft and intermediate)	No	50	
<b>Extra over for horizontally curved guard rails:</b>			
1731 Extra over C11.4.2.1(a) for horizontally curved guard rails 7 factory bent to a radius of less than 45 m 3	m	120	
<b>Additional guardrail posts for 3,81 m systems:</b>			
174 Timber	No	31	
<b>Reflective plates:</b>			
175 Steel plates	No	57	
1761 Extra over items C11.4.1 and C11.4.2 for drilling and blasting 7 holes for guardrail posts 6	No	10	
1771 Nailing of gang nail plates on top of timber guardrail posts 7 7	No	71	
<b><u>C11.5 FENCING</u></b>			
<b>Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:</b>			
178 6-strand electrical fencing complete as detailed on the drawings and fixed to mesh fencing posts	km	1.30	
179 Painted and PVC-coated heavy security mesh panels as detailed on the drawings Section No. 3 Bill No. 1 Earthworks, Roads, Stormwater	m <sup>2</sup>	3 900	

1801 Hot dip galvanised and painted posts, 3m long, including  
8 mesh fixing, all as detailed on the drawings

No

450

Amount

Carried to Collection

R

Section No. 3  
Bill No. 1  
Earthworks, Roads, Stormwater

	Unit	Quantity	Rate	Amount
<b><u>Straining posts, stays and anchors:</u></b>				
<b>Vertical:</b>				
1811				
8				
1	No	12		
100 x 100 x 3 x 3700 square hollow section gate post complete with stop guides, cap, galvanised anchor rod, and welded to mesh fence post, all as detailed on the drawings				
182	No	3		
100 x 100 x 4 x 3700 square hollow section sliding gate guide post (double column) complete with cap, galvanised anchor rods, stopping blocks and connected roller guides, all as detailed on the drawings				
183	No	3		
100 x 100 x 4 x 3700 square hollow section stopping post complete with cap, galvanised anchor rods and stop guides, all as detailed on the drawings				
<b>Horizontal:</b>				
1841				
8				
4	m	1 300		
Anti-climb over spike rail, 40 x 20 x 40 x 2.5mm thick, fabricated from 100mm wide sheet metal fixed to the mesh panel all as detailed in the drawings				
1851				
8	m	1 300		
5				
Extra over items C11.5.1.3; C11.5.1.4 and C11.5.1.6 for trenching, 300mm deep				
<b>New gates</b>				
186	No	3		
10.3 x 2.725m sliding gate complete with frame, gear rail, mesh, mesh connectors, anti-climb over, rollers, all as detailed on the drawings				
1871	No	3		
8				
7				
20m sliding gate rail system complete as detailed on the drawings, including flat bar, angle iron rail and fish tails,				
1881	m	60		
8				
8				
850 x 750mm Cast in-situ concrete support beam for sliding gate rail, including excavation, formwork, concrete, surface finish, chamfering and reinforcement, all as detailed on the drawings				
189	No	3		
2650 x 1200 pedestrian swing gate complete with frame, mesh, mesh connectors, anti-climb over, hinges, slide bolt and lock, all as detailed on the drawings.				
190	No	460		
Drilling and blasting holes for posts and anchors				
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				

Carried to Collection

LIMPOPO PROVINCIAL THEATRE  
R

Section No. 3  
Bill No. 1  
Earthworks, Roads, Stormwater

	Unit	Quantity	Rate	Amount
<b>Posts fixed horizontally to the bottom of wire mesh for the closing of openings under fences:</b>				
191	m	30		
192	No	3		
<b><u>ROAD SIGNS</u></b>				
<b>Regulatory signs, permanent:</b>				
193	No	20		
<b>Warning signs, permanent:</b>				
194	No	5		
195	m <sup>2</sup>	2		
<b><u>Extra over on item C11.6.1 for using:</u></b>				
<b>Background of retro-reflective material:</b>				
196	m <sup>2</sup>	7		
197	m <sup>2</sup>	5		
<b>Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material:</b>				
198	m <sup>2</sup>	3		
<b>Road sign supports (overhead road sign structures excluded):</b>				
199	Tonnes	0.30		
<b>Excavation and backfilling for road sign supports (not applicable to kilometre posts):</b>				
200	m <sup>3</sup>	5		
201	m <sup>3</sup>	1		
			R	
Carried to Collection				
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				



	Unit	Quantity	Rate	Amount
<b>Road studs:</b>				
216	No	30		
217	No	1		
218	%	4 000		
219	No	30		
220	km	2		
221	No	1		
<b>Removal of existing, temporary or final road markings by:</b>				
222	m <sup>2</sup>	250		
<b><u>LANDSCAPING AND PLANTING PLANTS</u></b>				
<b>Trimming:</b>				
223	m <sup>2</sup>	8 162		
<b>Preparing the areas for grassing:</b>				
Topsoiling within the road reserve where the following materials are used:				
224	m <sup>3</sup>	1 632		
<b><u>FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS</u></b>				
<b>Finishing the road and road reserve:</b>				
225	Hect	4.50		
<b>SLOPE PROTECTION MEASURES</b>				
226	m <sup>2</sup>	1 800		
227	m <sup>2</sup>	1 800		
228	m <sup>3</sup> -km	360		
			<b>R</b>	
Carried to Collection				
Section No. 3				
Bill No. 1				
Earthworks, Roads, Stormwater				



	Unit	Quantity	Rate	Amount
<b>HARD EXCAVATION BY BLASTING</b>				
229				
	Excavation in hard rock using controlled blasting techniques	m <sup>3</sup>	6 600	
<b><u>TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP</u></b>				
Special tests requested by the Engineer:				
<b>Employer's contribution to other special tests:</b>				
230	Specify test	Prov Sum		
231	Handling costs and profit in respect of item C20.1.2.2(a)	%	100 000	
Carried to Collection			R	

Section No. 3  
 Bill No. 1  
 Earthworks, Roads, Stormwater

Amount

**BILL NO. 1**

**EARTHWORKS, ROADS, STORMWATER**

**COLLECTION**

Page No

Brought Forward from Page

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

Carried To Section Summary

R

Section No. 3

Bill No. 1

Earthworks, Roads, Stormwater

Unit Quantity Rate Amount

Carried To Section Summary

R

Section No. 3  
Bill No. 1  
Earthworks, Roads, Stormwater

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 3</b>				
<b>EXTERNAL WORKS</b>				
<b>BILL NO. 2</b>				
<b>BOREHOLE AND RISING MAIN</b>				
<b>PREAMBLES</b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill				
<b>BOREHOLE AND RISING WATER MAIN</b>				
<b>Trench Excavations:</b>				
1	(a) Soft excavation	m <sup>3</sup>	105	
2	(b) Intermediate excavation	m <sup>3</sup>	210	
3	(c) Hard Rock excavation	m <sup>3</sup>	314	
<b>Backfilling:</b>				
4	(a) Bedding Cradle – Class C as per drawing LDPWRI-PROF/18002/2021/02 – DT-001-PD	m <sup>3</sup>	70	
5	(b) Compacted Selected Fill Blanket – Class C as per drawing LDPWRI-PROF/18002/2021/02 – DT-001-PD	m <sup>3</sup>	206	
6	(c) Main Fill – Class C as per drawing LDPWRI-PROF/18002/2021/02 – DT-001-PD	m <sup>3</sup>	353	
<b>Pipes and Structures:</b>				
7	(a) 90mm Diameter HDPE PN10	m	908	
8	(b) Valve chambers to Civil Engineer's details	No	15	
9	(c) Water Meters – for a 90mm PN10 HDPE water pipeline	No	2	
10	(d) Isolation Valves – for a 90mm PN10 HDPE water pipeline	No	4	
11	(e) Non-Return Valves – for a 90mm PN10 HDPE water pipeline	No	3	
12	(f) Air Valves – for a 90mm PN10 HDPE water pipeline	No	3	
13	(g) Scour Valves – for a 90mm PN10 HDPE water pipeline	No	3	
Carried to Collection				
Section No. 3				
Bill No. 2				
Borehole And Rising Main				
			R	



Amount

**BILL NO. 2**

**BOREHOLE AND RISING MAIN**

**COLLECTION**

Page No

Brought Forward from Page

168

169

Carried To Section Summary

R

Section No. 3  
Bill No. 2  
Borehole And Rising Main

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 3</b>				
<b>EXTERNAL WORKS</b>				
<b>BILL NO. 3</b>				
<b>SEWER INSTALLATION</b>				
<b>PREAMBLES</b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill				
<b>EXTERNAL SEWER INSTALLATION</b>				
<b>Trench excavations:</b>				
1	(a) Soft excavation	m <sup>3</sup>	182	
2	(b) Intermediate excavation	m <sup>3</sup>	364	
3	(c) Hard Rock excavation	m <sup>3</sup>	545	
<b>Backfilling:</b>				
4	(a) Bedding Cradle – Class C as per drawing LDPWRI-PROF/18002/2021/02 – DT-001-PD	m <sup>3</sup>	55	
5	(b) Compacted Selected Fill Blanket – Class C as per drawing LDPWRI-PROF/18002/2021/02 – DT-001-PD	m <sup>3</sup>	162	
6	(c) Main Fill – Class C as per drawing LDPWRI-PROF/18002/2021/02 – DT-001-PD	m <sup>3</sup>	884	
<b>Pipes and structures:</b>				
7	(a) 160mm Diameter Upvc Class 34	m	617	
8	(b) 1 000 mm Pre-Cast Concrete Manhole	No	12	
Carried To Section Summary				
Section No. 3				
Bill No. 3				
Sewer Installation				
			R	

Amount

**SECTION NO. 3**

**EXTERNAL WORKS**

**SECTION SUMMARY**

Bill No.

- 1 EARTHWORKS, ROADS, STORMWATER
- 2 BOREHOLE AND RISING MAIN
- 3 SEWER INSTALLATION

Page

- 167
- 170
- 171

Carried to Final Summary

R

Section No. 3  
SECTION SUMMARY



**SECTION NO. 4**  
**ELECTRICAL INSTALLATION**

Unit	Quantity	Rate	Amount
<p><b>SECTION NO. 4</b>  <b>ELECTRICAL INSTALLATION</b></p>			
<p><b>BILL NO. 1</b>  <b>SUPPLEMENTARY PREAMBLES</b></p>			
<p><b>BILL PREAMBLES &amp; BILL OF QUANTITIES</b></p>			
<p><b>General Notes</b></p>			
<p>This Bill of Quantities forms part of, and must be read in conjunction with the specifications</p>			
<p>The quantities given in the Bill for cables, cable markers, earth wire laid with cables, overhead conductors, overhead earth wires and</p>			
<p>excavations cannot be regarded as exact and are subject to measurement on site after completion of the service and adjustments will</p>			
<p>be made according to the unit rates given in the bill.</p>			
<p>In the event of discrepancies between the drawings, specifications and Bill of Quantities, the Engineer shall decide whether the work as</p>			
<p>executed shall be remeasured on site or whether re-measurement shall be effected from the working drawings only.</p>			
<p><b>NOTE:</b></p>			
<p><b>Checking of Cable Lengths</b></p>			
<p>Notwithstanding the fact that the lengths of cables as given in the Bill of Quantities have been measured from scaled drawings, the contractor</p>			
<p>shall check such lengths on site before ordering the cable as he / she will not be paid for excess cable after the completion of the service</p>			
<p>Any allowance for off-cuts shall be made in the unit rates. The final measurements shall be based on the nett route length of the cables</p>			
<p>and overhead lines concerned.</p>			
<p><b>Checking of quantities for other materials</b></p>			
<p>Notwithstanding the fact that the quantities for light fittings, switches, socket outlets and isolators as given in the Bill of Quantities have been</p>			
<p>Carried to Collection</p>			
<p>Section No. 4                      Bill No. 1                      Supplementary Preambles</p>			
			R

	Unit	Quantity	Rate	Amount
<p>measured from site inspections, the contractor shall check such lengths/quantities on site before ordering as he / she will not be paid for</p> <p>excess quantities after the completion of the service. Any ambiguous or dubious wording or quantities must be cleared with the responsible</p> <p>Engineer before work is started. Wrong interpretation of the specification and / or drawings and Bill of Quantities, resulting in alterations</p> <p>and/or additional costs, is solely the responsible of the contractor.</p> <p>Where alternative prices for the switchgear (where applicable) of different manufacture are quoted the lowest alternative price for switchgear</p> <p>as per the specification must be quoted against the relevant item in the Bill of Quantities. The remaining alternative prices must be furnished</p> <p>separately</p> <p>The unit prices quoted in the Bill of Quantities must include all installation materials as are required for the complete installation in accordance</p> <p>with the specification.</p> <p>All equipment, components and material shall be new, unused and best quality and shall comply with the relevant current specifications of</p> <p>the SABS, SANS and as stated in this document, wherever possible, be of South African manufacture.</p> <p>No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will</p> <p>not be recognised but the original wording of the Bill of Quantities will be adhered to.</p> <p>The Engineer will check the completed Bill of Quantities and reserves the right to adjust any individual price and to rectify any discrepancy</p> <p>whilst the total tender price as quoted remains unaltered.</p> <p>Electrical materials associated with the building, for example conduit accessories and wiring accessories, will not be re-measurable and the</p>				
<p>Carried to Collection</p> <p>Section No. 4</p> <p>Bill No. 1</p> <p>Supplementary Preambles</p>			R	

	Unit	Quantity	Rate	Amount
<p>tenderer must therefore allow for the supply of all necessary accessories of materials for the successful execution and completion of the installation.</p> <p>The unit rate for each item in the Bill of Quantities shall include for all materials, labour, profit, transport, etc., everything necessary for the execution and complete installation of the work in accordance with the description of the works.</p> <p>The Bills of Quantities shall not be used for ordering purposes. The contractor shall check the lengths of cables, overhead conductors, materials, light fitting quantities, switches, socket outlets and isolators on site before ordering any of these</p> <p>Any allowance for off-cuts of cables shall be made in the unit rates.</p> <p>The rates shall exclude Value-Added Tax (VAT) and the total carried over to the final summary.</p> <p>The contractor is required to label all distribution boards, supply and install all danger warning signs, label all switches, socket outlets and isolators etc. and all costs shall be deemed to have been provided for and included in the unit rates and sum amounts tendered for the items scheduled in the Bill of Quantities and separate additional payment will not be made.</p> <p><b>Black ink shall be used for pricing the document, any other prices marked in other colours or pencil shall not be considered for the total price of the bill.</b></p> <p>Contractor's Name:.....</p> <p>Electrical Contractor's Registration Number at the Electrical Contracting Board of South Africa:.....</p> <p>Name of Registered Person / Firm at ECB:.....</p> <p>NB: Only contractors whose ECB Registration is for Three Phase installations will be considered.</p> <p>CONTRACTOR TO SUBMIT ACCREDITATION PAPERS OF THE ELECTRICAL CONTRACTOR WITHIN FOURTEEN DAYS OF BEING APPOINTED</p>				
Carried to Collection			R	
<p>Section No. 4                      Bill No. 1                      Supplementary Preambles</p>				

Amount

**BILL NO. 1**

**SUPPLEMENTARY PREAMBLES**

**COLLECTION**

Page No

Brought Forward from Page

174

175

176

Carried To Section Summary

R

Section No. 4  
Bill No. 1  
Supplementary Preambles



	Unit	Quantity	Rate	Amount
11	m	200		
12	m	311		
13	m	210		
14	m	285		
15	m	118		
16	m	420		
17	m	64		
18	m	54		
19	m	35		
20	m	55		
21	m	50		
22	m	50		
<b><u>EARTH WIRE</u></b>				
<b>Supply and install the following bare stranded copper earth wire strapped to the relative cable at 1000mm intervals</b>				
23	m	340		
24	m	510		
25	m	155		
26	m	200		
27	m	311		
28	m	210		
29	m	403		
30	m	420		
31	m	64		
32	m	54		
33	m	35		
34	m	55		
Carried to Collection			R	
Section No. 4				
Bill No. 2				
Siteworks				

	Unit	Quantity	Rate	Amount
<b><u>CABLES GLANDS</u></b>				
<b>Supply and install the following cable glands including making off the cable</b>				
35	No	24		
36	No	12		
37	No	12		
38	No	6		
39	No	18		
40	No	12		
41	No	24		
42	No	36		
43	No	24		
44	No	36		
45	No	8		
46	No	8		
47	No	8		
48	No	24		
49	No	160		
<b><u>SLEEVES</u></b>				
<b>Supply and install the following the glands cables including making off cables.</b>				
50	m	180		
51	m	245		
52	m	150		
53	m	96		
54	m	36		
Carried to Collection			R	
Section No. 4				
Bill No. 2				
Siteworks				



	Unit	Quantity	Rate	Amount
<b><u>TRENCHES</u></b>				
<b>Excavation, smoothing out of trench, installing bedding and backfilling, compacting and making as specified.</b>				
55	Earth	m <sup>3</sup>	200	
56	Soft Rock	m <sup>3</sup>	150	
57	Hard Rock	m <sup>3</sup>	150	
<b><u>CABLE MARKERS</u></b>				
<b>Supply and installation concrete cable markers as indicated on site.</b>				
58	Cable Makers	No	70	
<b><u>AREA LIGHTING</u></b>				
<b>Supply and Install the following lights as indicated on the drawing complete with concrete and all accessories</b>				
59	6m Mounting Height (6.9m Total Length) Galvanised Steel Streetlight Pole – Buried Hot Dip Galvanised and Powder Coated (Standard Colour) with Glandplate, Baseplate and MCB	Rate only	38	
60	3m Mounting Height (4m Total Length) Galvanised Steel Streetlight Pole – Buried Hot Dip Galvanised and Powder Coated (Standard Colour) with Glandplate, Baseplate and MCB	Rate only	32	
61	Floodlight LED Light Fitting – LEDLume 55W or similar	No	110	
62	Type I1: 56W, 740mm Vandal- Resistant Linear LED Luminaire complete with driver – similar to BEKA ROUGHDGAURD	No	100	
63	Type I1-E: 56W, 740mm Vandal- Resistant Linear LED Luminaire complete with driver (Emergency) – similar to BEKA ROUGHDGAURD	No	90	
<b><u>MAIN HOLE DB</u></b>				
<b>Build manholes in position as indicated on the drawing complete with lid as specified.</b>				
64	600 x 600 x 700mm deep (power)	No	5	
			Carried to Collection	R
Section No. 4				
Bill No. 2				
Siteworks				

	Unit	Quantity	Rate	Amount
65	No	5		
<b>300 x 300 x 500mm deep (tel/Data)</b>				
<b><u>TELEPHONE AND DATA CUBICLES</u></b>				
<b>Supply and install Telephone and data cubicles complete as shown on the drawing.</b>				
66	No	8		
<b>Telephone and Data Cubicles (400 x 400 x 150 deep)</b>				
<b><u>EARTHING AND LIGHTNING PROTECTION</u></b>				
<b>Supply and install earthing and lighting protection for the buildings as specified.</b>				
67	Item			
<b>Lightning Protection</b>				
<b><u>AS BUILT DRAWINGS</u></b>				
<b>Supply the electrical engineer with as build drawings as specified.</b>				
68	Item			
<b>As built drawings (3 set)</b>				
<b><u>CABLE TRAY</u></b>				
<b>All prices shall include for supports and all other fixing materials as needed as no extra claims for above shall be entertained. Rates for this must however be provided where it is asked for.</b>				
69	m	184		
<b>100mm Medium Duty Cable Tray</b>				
70	m	242		
<b>150mm Medium Duty Cable Tray</b>				
71	No	34		
<b>100mm Internal Bend</b>				
72	No	34		
<b>100mm External Bend</b>				
73	No	42		
<b>150mm Internal Bend</b>				
74	No	42		
<b>150mm External Bend</b>				
<b><u>CABLE LADDER</u></b>				
<b>All prices shall include for supports and all other fixing materials as needed as no extra claims for above shall be entertained. Rates for this must however be provided where it is asked for.</b>				
75	m	126		
<b>400mm Cable Ladders (Heavy Duty)</b>				
76	m	126		
<b>400mm Heavy Duty cable ladder cover</b>				
77	No	16		
<b>90 Bends (Heavy Duty)</b>				
Carried to Collection				R
Section No. 4				
Bill No. 2				
Siteworks				

LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
78 Tee-offs (Heavy Duty)	No	10		
79 Type J: 50W LINEAR LED LIGHT – similar to BERGSTORM KUMA	No	20		
80 Relocation of Existing Power Lines	Prov Sum			
Carried to Collection				R

Section No. 4  
 Bill No. 2  
 Siteworks

Amount

**BILL NO. 2**

**SITWORKS**

**COLLECTION**

Page No

Brought Forward from Page

178

179

180

181

182

183

Carried To Section Summary

R

Section No. 4  
Bill No. 2  
Siteworks

Unit	Quantity	Rate	Amount
<b>SECTION NO. 4</b>			
<b><u>ELECTRICAL INSTALLATION</u></b>			
<b><u>BILL NO. 3</u></b>			
<b><u>LEVEL 1</u></b>			
<b><u>FIRST LEVEL - 1381.5m</u></b>			
<b><u>DISTRIBUTION BOARDS</u></b>			
Supply and install the following boards complete with equipment as indicated on the drawings.			
1	DB - NW	No	1
2	DB - SW	No	1
3	DB - CW	No	1
<b><u>LIGHTING INSTALLATION</u></b>			
Supply and installation of the following light fitting, complete with lamps and control gear			
4	Type B: 1200mmx600mm 65W LED Panel Ceiling Recessed Luminaire fitted with Opal diffuser complete with driver	No	16
5	Type B-E: 1200mmx600mm 65W LED Panel Ceiling Recessed Luminaire fitted with Opal diffuser complete with driver (Emergency)	No	11
6	Type E: Ceiling mounted watertight bulkhead fitted with 21W LED lamp - similar to BEKA Series 300	No	4
7	Type E-E: Ceiling mounted watertight bulkhead fitted with 21W LED lamp - similar to BEKA Series 300 - Emergency	No	4
8	Type G: 16W LED Ceiling Mounted Downlighter complete with driver - similar to RONDMaxi	No	90
9	Type G-E: 16W LED Ceiling Mounted Downlighter complete with driver - similar to RONDMaxir (Emergency)	No	74
10	Type G1: 7W LED Ceiling Mounted Downlighter complete with driver - similar to ROND Midi	No	16
11	Type G1-E: 7W LED Ceiling Mounted Downlighter complete with driver - similar to ROND Midi (Emergency)	No	16
			R
Carried to Collection			
Section No. 4			
Bill No. 3			
Level 1			



	Unit	Quantity	Rate	Amount
<b><u>PVC INSULATED WIRE</u></b>				
<b>Supply and installation of the following 1000/600 grade PVC single core with colours into trunking and conduits including termination on both ends</b>				
26	m	3 450		
27	m	3 200		
28	m	980		
<b><u>EARTHWIRE</u></b>				
<b>Supply and install the following Bare Copper Earth 1000/600 Grade conductor into trunking and conduits including termination on both ends</b>				
29	m	6 650		
30	m	980		
<b><u>ISOLATORS</u></b>				
<b>Supply and install the following isolators with cover plates and wall boxes</b>				
31	No	10		
32	No	12		
33	No	4		
<b><u>WORK STATION</u></b>				
<b>Supply and Install a workstation as indicated on the drawings complete with all accessories including,</b>				
34	No	2		
2 Tier Wall Box (275mmx157mm), 2 Tier Cover, 2xNormal Socket Outlet, 1 x Dedicated Socket Outlet, Telephone Point, Computer Point – Recessed in Wall				
35	No	6		
2xNormal Socket Outlet, 1 x Dedicated Socket Outlet, Telephone Point, Computer Point – Mounted on Power Skirting				
<b><u>POWER SKIRTING</u></b>				
<b>Supply and install the following galvanise power skirting complete with cover plates and accessories.</b>				
36	m	26		
2 compartment, 3 Tier Power Skirting				
37	No	8		
Power skirting end caps				
			R	
Carried to Collection				
Section No. 4				
Bill No. 3				
Level 1				

	Unit	Quantity	Rate	Amount
<b><u>CONDUIT</u></b>				
<b>Supply and install conduit cast into concrete or screed, chased into concrete or brickwork and surface mounted for the electrical and telephone installation including couplings, bushes, locknuts, cutting, bending, accordance with the specification. fixing, draw boxes etc. in</b>				
38	m	1 150		
39	m	800		
40	m	450		
41	m	450		
<b><u>ROUND DRAW BOXES</u></b>				
<b>Supply and install the following round draw boxes build into brickwork, cast into concrete or dry wall.</b>				
42	No	287		
43	No	84		
<b><u>TRUNKING</u></b>				
<b>Supply and installation of P9000 Trunking installed above ceiling for the distribution of small power wiring, complete with cover</b>				
44	m	250		
45	No	24		
46	No	24		
47	No	40		
48	No	50		
49	No	12		
Carried to Collection			R	
Section No. 4				
Bill No. 3				
Level 1				



Amount

**BILL NO. 3**

**LEVEL 1**

**COLLECTION**

Page No

Brought Forward from Page

185

186

187

188

Carried To Section Summary

R

Section No. 4  
Bill No. 3  
Level 1

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 4</b>				
<b>ELECTRICAL INSTALLATION</b>				
<b>BILL NO. 4</b>				
<b>LEVEL 2</b>				
<b>SECOND LEVEL - 1385.0m</b>				
<b>DISTRIBUTION BOARDS</b>				
Supply and Install the following boards complete with equipment as indicated on the drawings.				
1	DB -NW	No	1	
2	DB - SW	No	1	
3	DB - CW	No	1	
4	DB - K	No	1	
<b>LIGHTING INSTALLATION</b>				
Supply and installation of the following light fitting, complete with lamps and control gear				
5	Type A: 600mmx600mm 36W LED Panel Ceiling Recessed Luminaire fitted with Opal diffuser complete with driver	No	15	
6	Type A-E: 600mmx600mm 36W LED Panel Ceiling Recessed Luminaire fitted with Opal diffuser complete with driver (Emergency)	No	12	
7	Type E: Ceiling mounted watertight bulkhead fitted with 21W LED lamp - similar to BEKA Series 300	No	4	
8	Type E-E: Ceiling mounted watertight bulkhead fitted with 21W LED lamp - similar to BEKA Series 300 - Emergency	No	4	
9	Type G: 16W LED Ceiling Mounted Downlighter complete with driver - similar to RONDOmaxi	No	147	
10	Type G-E: 16W LED Ceiling Mounted Downlighter complete with driver - similar to RONDOmaxir (Emergency)	No	120	
11	Type G1: 7W LED Ceiling Mounted Downlighter complete with driver - similar to RONDOmidi	No	40	
12	Type G1-E: 7W LED Ceiling Mounted Downlighter complete with driver - similar to RONDOmidi (Emergency)	No	26	
	Carried to Collection			R
Section No. 4				
Bill No. 4				
Level 2				

	Unit	Quantity	Rate	Amount
13	Type I1: 26W, 740mm Vandal- Resistant Linear LED Luminaire complete with driver – similar to BEKA ROUGHDGAURD	No	16	
14	Type I1-E: 26W, 740mm Vandal- Resistant Linear LED Luminaire complete with driver (Emergency) – similar to BEKA ROUGHDGAURD	No	8	
15	Type LB 1: 26W LINEAR LED LIGHT – similar to BEKA LEDBeam	No	36	
16	Type W: 36W Decorative Bulkhead LED Light – similar to BEKA QVAL	No	2	
17	Type H: Wall mounted watertight Bulkhead with 21W LED Lamp with Aluminium Base and Opal Diffuser	No	46	
18	Type LD: 70W LED Disk Light Fitting with Aluminium Housing and Acrylic Diffuser Complete with Driver – similar to BEKA LEDdisc maxi	No	38	
19	Type LD-E: 70W LED Disk Light Fitting with Aluminium Housing and Acrylic Diffuser Complete with Driver (emergency) – similar to BEKA LEDdisc maxi	No	24	
20	Type LD1: 100W LED Disk Light Fitting with Aluminium Housing and Acrylic Diffuser Complete with Driver – similar to BEKA LEDdisc maxi	No	14	
21	Type LD1-E: 100W LED Disk Light Fitting with Aluminium Housing and Acrylic Diffuser Complete with Driver (emergency) – similar to BEKA LEDdisc maxi	No	10	
22	Type Z: 21W LED Bollard Light – similar to BEKA Semita	No	10	
23	Type BD: 16W LED DOWNLIGHTER (BLUE LIGHT) Light Fitting mounted on Soffit – similar to BEKARondo	No	80	
24	Type GW: 16W LED DOWNLIGHTER (WARK WHITE) Light Fitting mounted on Soffit – similar to BEKARondo	No	80	
<b><u>SENSORS</u></b>				
<b>Supply and install the following sensing equipment</b>				
25	Occupancy Sensor	No	12	
26	Photo Cell	No	2	
<b><u>STRONG ROOMS/STORE ROOMS</u></b>				
27	Supply and install indicator lights	No	1	
			Carried to Collection	R
Section No. 4				
Bill No. 4				
Level 2				

	Unit	Quantity	Rate	Amount
<b><u>LIGHT SWITCH</u></b>				
<b>Supply and install the following light switches complete with cover plate and wall boxes</b>				
28	No	23		
29	No	4		
30	No	4		
<b><u>SOCKET OUTLET</u></b>				
<b>Supply and install the following socket outlets complete with cover plate and wall boxes</b>				
31	No	4		
32	No	18		
33	No	32		
<b><u>PVC INSULATED WIRE</u></b>				
<b>Supply and installation of the following 1000/600 grade PVC single core with colours into trunking and conduits including termination on both ends</b>				
34	m	3 750		
35	m	3 600		
36	m	980		
<b><u>EARTH WIRE</u></b>				
<b>Supply and install the following Bare Copper Earth 1000/600 Grade conductor into trunking and conduits including termination on both ends</b>				
37	m	7 350		
38	m	980		
<b><u>ISOLATORS</u></b>				
<b>Supply and install the following isolators with cover plates and wall boxes</b>				
39	No	14		
40	No	20		
			R	
Carried to Collection				
Section No. 4				
Bill No. 4				
Level 2				

	Unit	Quantity	Rate	Amount
<b><u>WORK STATION</u></b>				
<b>Supply and Install a workstation as indicated on the drawings complete with all accessories including,</b>				
41	No	2		
2 Tier Wall Box (275mmx157mm), 2 Tier Cover, 2xNormal Socket Outlet, 1 x Dedicated Socket Outlet, Telephone Point, Computer Point – Recessed in Wall				
42	No	16		
2xNormal Socket Outlet, 1 x Dedicated Socket Outlet, Telephone Point, Computer Point – Mounted on Power Skirting				
<b><u>POWER SKIRTING</u></b>				
<b>Supply and install the following galvanise power skirting complete with cover plates and accessories.</b>				
43	m	100		
2 compartment, 3 Tier Power Skirting				
44	No	8		
Power skirting end caps				
<b><u>CONDUIT</u></b>				
<b>Supply and install conduit cast into concrete or screed, chased into concrete or brickwork and surface mounted for the electrical and telephone installation including couplings, bushes, locknuts, cutting, bending, accordance with the specification. fixing, draw boxes etc. in</b>				
45	m	1 250		
20mm dia PVC				
46	m	900		
25mm dia PVC				
47	m	550		
20mm dia Galvanised Steel				
48	m	550		
25mm dia Galvanised Steel				
<b><u>ROUND DRAW BOXES</u></b>				
<b>Supply and install the following round draw boxes build into brickwork, cast into concrete or dry wall.</b>				
49	No	732		
75mm dia PVC				
50	No	404		
75mm dia Galvanised Metal				
<b><u>TRUNKING</u></b>				
<b>Supply and installation of P9000 Trunking installed above ceiling for the distribution of small power wiring, complete with cover</b>				
51	m	450		
P9000 Trunking.				
			R	
Carried to Collection				
Section No. 4				
Bill No. 4				
Level 2				

LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
52 P9000 Tees.	No	24		
53 P9000 90 degree bands.	No	24		
54 P9000 End caps.	No	40		
55 Solid Hanger	No	90		
56 Solid Crossover	No	12		
Carried to Collection				
			R	

Section No. 4  
 Bill No. 4  
 Level 2

Amount

**BILL NO. 4**

**LEVEL 2**

**COLLECTION**

Page No

Brought Forward from Page

190

191

192

193

194

Carried To Section Summary

R

Section No. 4  
Bill No. 4  
Level 2





	Unit	Quantity	Rate	Amount
12	Type W: 36W Decorative Bulkhead LED Light – similar to BEKA QVAL	No	2	
13	Type HB: 100W LED HIGHBAY Light Fitting – similar to BEKA ECOBay	No	4	
14	Type HB-E: 100W LED HIGHBAY Light Fitting (emergency) – similar to BEKA ECOBay	No	2	
15	Type BD: 16W LED DOWNLIGHTER (BLUE LIGHT) Light Fitting mounted on Soffit – similar to BEKARondo	No	10	
16	Type GW: 16W LED DOWNLIGHTER (WARK WHITE) Light Fitting mounted on Soffit – similar to BEKARondo	No	8	
<b><u>SENSORS</u></b>				
<b>Supply and install the following sensing equipment</b>				
17	Occupancy Sensor	No	4	
<b><u>STRONG ROOMS/STORE ROOMS</u></b>				
18	Supply and install indicator lights	No	1	
<b><u>LIGHT SWITCH</u></b>				
<b>Supply and install the following light switches complete with cover plate and wall boxes</b>				
19	16A single lever	No	14	
20	16A two lever	No	3	
21	16A two way	No	4	
<b><u>SOCKET OUTLET</u></b>				
<b>Supply and install the following socket outlets complete with cover plate and wall boxes</b>				
22	16A 3-pin double	No	6	
23	Switched Socket 16A, 3 PIN + 2xEURO + 2xUSB Complete	No	6	
<b><u>PVC INSULATED WIRE</u></b>				
<b>Supply and installation of the following 1000/600 grade PVC single core with colours into trunking and conduits including termination on both ends</b>				
24	2.5mm <sup>2</sup>	m	1 380	
25	4mm <sup>2</sup>	m	1 440	
Carried to Collection			R	
Section No. 4				
Bill No. 5				
Level 3				





Amount

**BILL NO. 5**

**LEVEL 3**

**COLLECTION**

Page No

Brought Forward from Page

196

197

198

199

Carried To Section Summary

R

Section No. 4  
Bill No. 5  
Level 3





	Unit	Quantity	Rate	Amount
<b><u>ISOLATORS</u></b>				
Supply and install the following isolators with cover plates and wall boxes				
23	No	8		
<b><u>CONDUIT</u></b>				
Supply and install conduit cast into concrete or screed, chased into concrete or brickwork and surface mounted for the electrical and telephone installation including couplings, bushes, locknuts, cutting, bending, accordance with the specification. fixing, draw boxes etc. in				
24	m	460		
25	m	320		
26	m	300		
27	m	300		
<b><u>ROUND DRAW BOXES</u></b>				
Supply and install the following round draw boxes build into brickwork, cast into concrete or dry wall.				
28	No	44		
29	No	8		
<b><u>TRUNKING</u></b>				
Supply and installation of P9000 Trunking installed above ceiling for the distribution of small power wiring, complete with cover				
30	m	34		
31	No	4		
32	No	2		
33	No	6		
34	No	7		
35	No	4		
Carried to Collection				R
Section No. 4				
Bill No. 6				
Level 4				

**BILL NO. 6**  
**LEVEL 4**  
**COLLECTION**

Amount

Page No

Brought Forward from Page

201

202

203

Carried To Section Summary

R

Section No. 4  
Bill No. 6  
Level 4





	Unit	Quantity	Rate	Amount
<b><u>SENSORS</u></b>				
<b>Supply and install the following sensing equipment</b>				
11	Occupancy Sensor	No	8	
<b><u>STRONG ROOMS/STORE ROOMS</u></b>				
12	Supply and install indicator lights	No	1	
<b><u>LIGHT SWITCH</u></b>				
<b>Supply and install the following light switches complete with cover plate and wall boxes</b>				
13	16A two lever	No	4	
14	16A two way	No	4	
<b><u>SOCKET OUTLET</u></b>				
<b>Supply and install the following socket outlets complete with cover plate and wall boxes</b>				
15	16A 3-pin double	No	6	
16	Switched Socket 16A, 3 PIN + 2xEURO + 2xUSB Complete	No	2	
<b><u>PVC INSULATED WIRE</u></b>				
<b>Supply and installation of the following 1000/600 grade PVC single core with colours into trunking and conduits including termination on both ends</b>				
17	2.5mm2	m	1 260	
18	4mm2	m	9 200	
19	6mm2	m	980	
<b><u>EARTHWIRE</u></b>				
<b>Supply and install the following Bare Copper Earth 1000/600 Grade conductor into trunking and conduits including termination on both ends</b>				
20	2.5mm2	m	10 460	
21	4mm2	m	980	
<b><u>ISOLATORS</u></b>				
<b>Supply and install the following isolators with cover plates and wall boxes</b>				
22	20A 2-pole	No	8	
Carried to Collection			R	
Section No. 4				
Bill No. 7				
Level 5				



**BILL NO. 7**  
**LEVEL 5**  
**COLLECTION**

Amount

Page No

Brought Forward from Page

205

206

207

Carried To Section Summary

R

Section No. 4  
Bill No. 7  
Level 5

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 4</b>				
<b><u>ELECTRICAL INSTALLATION</u></b>				
<b><u>BILL NO. 8</u></b>				
<b><u>GUARD HOUSE</u></b>				
<b><u>GUARD HOUSE</u></b>				
<b><u>DISTRIBUTION BOARDS</u></b>				
Supply and Install the following boards complete with equipment as indicated on the drawings.				
1	No	1		
DB -7L1				
<b><u>LIGHTING INSTALLATION</u></b>				
Supply and installation of the following light fitting, complete with lamps and control gear				
2	No	4		
Type A: 600mmx600mm 36W LED Panel Ceiling Recessed Luminaire fitted with Opal diffuser complete with driver				
3	No	2		
Type A-E: 600mmx600mm 36W LED Panel Ceiling Recessed Luminaire fitted with Opal diffuser complete with driver (Emergency)				
4	No	1		
Type E: Ceiling mounted watertight bulkhead fitted with 21W LED lamp – similar to BEKA Series 300				
5	No	1		
Type E-E: Ceiling mounted watertight bulkhead fitted with 21W LED lamp – similar to BEKA Series 300 – Emergency				
6	No	4		
Type H: Wall mounted watertight Bulkhead with 21W LED Lamp with Aluminium Base and Opal Diffuser				
7	No	33		
Type GH: 100W LED Light Fitting with Aluminium Housing and Acrylic Diffuser Complete with Driver – similar to BEKA LEDTEC				
8	No	33		
Type GH-E: 100W LED Light Fitting with Aluminium Housing and Acrylic Diffuser Complete with Driver (emergency) – similar to BEKA LEDTEC R				
<b><u>STRONG ROOMS/STORE ROOMS</u></b>				
9	No	1		
Supply and install indicator lights				
			R	
Carried to Collection				
Section No. 4				
Bill No. 8				
Guard House				

	Unit	Quantity	Rate	Amount
<b><u>LIGHT SWITCH</u></b>				
<b>Supply and install the following light switches complete with cover plate and wall boxes</b>				
10	No	6		
<b><u>SOCKET OUTLET</u></b>				
<b>Supply and install the following socket outlets complete with cover plate and wall boxes</b>				
11	No	4		
12	No	2		
<b><u>PVC INSULATED WIRE</u></b>				
<b>Supply and installation of the following 1000/600 grade PVC single core with colours into trunking and conduits including termination on both ends</b>				
13	m	900		
14	m	800		
15	m	980		
<b><u>EARTH WIRE</u></b>				
<b>Supply and install the following Bare Copper Earth 1000/600 Grade conductor into trunking and conduits including termination on both ends</b>				
16	m	1 700		
17	m	980		
<b><u>ISOLATORS</u></b>				
<b>Supply and install the following isolators with cover plates and wall boxes</b>				
18	No	8		
<b><u>WORK STATION</u></b>				
<b>Supply and Install a workstation as indicated on the drawings complete with all accessories including,</b>				
19	No	2		
Carried to Collection				
				R
Section No. 4				
Bill No. 8				
Guard House				



Amount

**BILL NO. 8**

**GUARD HOUSE**

**COLLECTION**

Page No

Brought Forward from Page

209

210

211

Carried To Section Summary

R

Section No. 4  
Bill No. 8  
Guard House



	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>				
<b><u>ELECTRICAL INSTALLATION</u></b>				
<b><u>BILL NO. 9</u></b>				
<b><u>ELECTRICAL PROVISIONAL SUMS</u></b>				
<b><u>Provisional Amounts</u></b>				
1				
Stage Lighting – including control for both theatres, dimming for heritage incandescent fixtures, LED generic profile, fresnel and cyclorama fixtures, moving head spot and wash fixtures, follow spots, hanging hardware and stands, and LED auditorium lighting system with optional local or control from the lighting desk.				
				Prov Sum
2				
Sound Installation – including PA for both the Main and Studio Theatres, in-ear and external monitors, radio and conventional microphones, mixing desks, processing units, amplifiers, run-of-play and paging to dressing rooms and offices, technical headset communication system, PA for the Poetry Rooms and Dance Studio with both local and central playback, and foyer PA for audience announcements.				
				Prov Sum
3				
Audio Visual – including remote PTF cameras in both theatres, camera control and vision mixing desks, preview monitors, streaming to online and other venues in the building, and smart boards in the Poetry Rooms				
				Prov Sum
4				
Stage Mechanics – including flybars, spotbars, under flyfloor hoists, and traverse curtain track.				
				Prov Sum
5				
ICT– Allow for installation of ICT including Wi-Fi or Fibre, Telephone, Sever				
				Prov Sum
Carried To Section Summary				R
Section No. 4				
Bill No. 9				
Electrical Provisional Sums				

Unit	Quantity	Rate	Amount
<b>SECTION NO. 4</b>			
<b><u>ELECTRICAL INSTALLATION</u></b>			
<b><u>BILL NO. 10</u></b>			
<b><u>ELECTRONICS</u></b>			
<b><u>PREAMBLES</u></b>			
<b>GENERAL NOTES</b>			
This Bill of Quantities forms part of, and must be read in conjunction with the specifications			
The quantities given in the Bill for cables, cable markers, earth wire laid with cables, overhead conductors, overhead earth wires and			
excavations cannot be regarded as exact and are subject to measurement on site after completion of the service and adjustments will be made according to the unit rates given in the bill.			
In the event of discrepancies between the drawings, specifications and Bill of Quantities, the Engineer shall decide whether the work as			
executed shall be remeasured on site or whether re-measurement shall be effected from the working drawings only.			
<b><u>NOTE:</u></b>			
<b>Checking of Cable Lengths</b>			
Notwithstanding the fact that the lengths of cables as given in the Bill of Quantities have been measured from scaled drawings, the contractor			
shall check such lengths on site before ordering the cable as he / she will not be paid for excess cable after the completion of the service			
Any allowance for off-cuts shall be made in the unit rates. The final measurements shall be based on the nett route length of the cables and overhead lines concerned.			
Checking of quantities for other materials			
Notwithstanding the fact that the quantities for light fittings, switches, socket outlets and isolators as given in the Bill of Quantities have been			
measured from site inspections, the contractor shall check such lengths/quantities on site before ordering as he / she will not be paid for			
Carried to Collection			
			<b>R</b>

Section No. 4  
 Bill No. 10  
 Electronics

Unit	Quantity	Rate	Amount
<p>excess quantities after the completion of the service. Any ambiguous or dubious wording or quantities must be cleared with the responsible</p>			
<p>Engineer before work is started. Wrong interpretation of the specification and / or drawings and Bill of Quantities, resulting in alterations and/or additional costs, is solely the responsible of the contractor.</p>			
<p>Where alternative prices for the switchgear (where applicable) of different manufacture are quoted the lowest alternative price for switchgear</p>			
<p>as per the specification must be quoted against the relevant item in the Bill of Quantities. The remaining alternative prices must be furnished separately</p>			
<p>The unit prices quoted in the Bill of Quantities must include all installation materials as are required for the complete installation in accordance with the specification.</p>			
<p>All equipment, components and material shall be new, unused and best quality and shall comply with the relevant current specifications of the SABS, SANS and as stated in this document, wherever possible, be of South African manufacture.</p>			
<p>No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will not be recognised but the original wording of the Bill of Quantities will be adhered to.</p>			
<p>The Engineer will check the completed Bill of Quantities and reserves the right to adjust any individual price and to rectify any discrepancy whilst the total tender price as quoted remains unaltered.</p>			
<p>Electrical materials associated with the building, for example conduit accessories and wiring accessories, will not be re-measurable and the</p>			
<p>tenderer must therefore allow for the supply of all necessary accessories of materials for the successful execution and completion of the installation.</p>			
<p>The unit rate for each item in the Bill of Quantities shall include for all materials, labour, profit, transport, etc., everything necessary for the</p>			
<p>execution and complete installation of the work in accordance with the description of the works.</p>			
<p>The Bills of Quantities shall not be used for ordering purposes. The contractor shall check the lengths of cables, overhead conductors,</p>			
<p>Carried to Collection</p>			
<p>Section No. 4 Bill No. 10 Electronics</p>			
			R



	Unit	Quantity	Rate	Amount
7	No	2		
8	No	7		
9	No	1		
10	No	1		
11	No	1		
12	No	1		
13	No	2		
14	No	1		
15	No	2		
16	No	1		
17	No	1		
18	No	7		
19	No	12		
20	No	1		
<b><u>ACCESS CONTROL AND CCTV LEVEL 2</u></b>				
21	No	8		
22	No	8		
23	No	16		
24	No	1		
25	No	8		
Carried to Collection			R	
Section No. 4				
Bill No. 10				
Electronics				

	Unit	Quantity	Rate	Amount
26	No	8		
27	No	8		
28	No	14		
29	No	2		
30	No	2		
31	No	2		
32	No	2		
33	No	1		
34	No	2		
35	No	1		
36	No	1		
37	No	7		
38	No	12		
39	No	1		
<b><u>ACCESS CONTROL AND CCTV LEVEL 3</u></b>				
40	No	2		
41	No	2		
42	No	6		
43	No	2		
44	No	2		
			R	
Carried to Collection				
Section No. 4				
Bill No. 10				
Electronics				

	Unit	Quantity	Rate	Amount
45	No	2		
46	No	2		
47	No	7		
48	No	1		
49	No	1		
50	No	1		
51	No	1		
52	No	1		
53	No	2		
54	No	1		
55	No	1		
56	No	7		
57	No	12		
58	No	1		
<b><u>ACCESS CONTROL AND CCTV LEVEL 4</u></b>				
59	No	4		
60	No	4		
61	No	8		
62	No	4		
63	No	4		
Carried to Collection			R	
Section No. 4				
Bill No. 10				
Electronics				

	Unit	Quantity	Rate	Amount
64	No	4		
65	No	4		
66	No	12		
67	No	1		
68	No	1		
69	No	1		
70	No	1		
71	No	1		
72	No	2		
73	No	1		
74	No	1		
75	No	7		
76	No	12		
77	No	1		
<b><u>ACCESS CONTROL AND CCTV LEVEL 5</u></b>				
78	No	4		
79	No	4		
80	No	6		
81	No	4		
82	No	4		
			R	
Carried to Collection				
Section No. 4				
Bill No. 10				
Electronics				



	Unit	Quantity	Rate	Amount
83	No	4		
84	No	4		
85	No	2		
86	No	1		
87	No	2		
88	No	2		
89	No	1		
90	No	1		
91	No	1		
92	No	4		
93	No	1		
94	No	1		
95	No	4		
96	No	24		
97	No	1		
<b><u>ACCESS CONTROL AND CCTV GUARD HOUSE</u></b>				
98	No	2		
99	No	2		
100	No	4		
Carried to Collection				R
Section No. 4				
Bill No. 10				
Electronics				

	Unit	Quantity	Rate
101 Electro Magnetic Lock – 12VDC or 24VDC input voltage, 272kg holding force	No	2	
1021 Z-Bracket- inswing doors	No	2	
0			
2			
1031 Silver Door Closer – medium duty, 4080kg, EN24	No	22	
0			
3			
1041 Call Point – double contact resettable green, with lid	No	2	
0			
4			
105 Dahua IP 4MP Dome – 2.8mm lens, 30m IR, IVS, DWDR, IP67, SD card support, 12VDC & PoE	No	2	
106 9U Wallbox, Swing Frame, 600mm Deep, Black	No	2	
107 Acconet 24 Port RJ45 Patch Panel, 1U, Black	No	1	
1081 Acconet Brush Panel 1U 19", Back	No	1	
0			
8			
109 Acconet Fan Unit, 4 Fans, 1U, Black, Power Switch, C14 Power Connector, Power cable not Incl.	No	1	
110 16*30W PoE, 2*SFP Layer 2 Smart PoE Switch Built-in Device Management System (DMS) Software Total power budget: 250W 6KV PoE surge protection	No	1	
111 1.25G Ethernet Transceiver, Multi-mode, SFP Type, 1310nm, FP-LD-2Km, Duplex LC, DC 3.3V	No	2	
112 M- SERIES 2KVA ON-LINE RACK/TOWER UPS.	No	1	
1131 RAIL KIT FOR RACK MOUNT UPS	No	1	
1			
3			
114 Acconet CAT6 UTP Flylead, 1 Meter, Straight, Stranded Cable, Moulded Boots and Plugs, Blue	No	3	
115 Acconet CAT6 UTP Flylead, 1.Meter, Straight, Stranded Cable, Moulded Boots and Plugs, Green	No	12	
1161 LEAD MM RUGG DUPLEX LC – LC 150m	No	1	
1			
6			

Section No. 4

Bill No. 10

Electronics

**CCTV AND ACCESS CONTROL HEADEND FOR CONTROL ROOM**

- 117 Dahua 4K 64ch NVR – 1.5U, 320Mbps, upto 24MP, 4HDD upto 10TB each, 1 CH fisheye de- warping, AI by Camera, 2 x HDMI, 2 x VGA
- 118 Western Digital 10TB Surveillance Hard Drive – 3.5" SATA, 6Gb/s, 256MB Cache – 30 DAYS STORAGE 25FPS

No	2
No	4

Amount

Carried to Collection

R

	Unit	Quantity	Rate	Amount
119	No	4		
120	No	4		
121	No	4		
122	No	1		
123	No	1		
124	No	1		
125	No	1		
126	No	1		
127	No	1		
128	No	2		
129	No	1		
130	No	1		
131	No	1		
132	No	1		
133	No	1		
<b><u>CABLE AND CONNECTORS</u></b>				
134	No	2		
135	No	6		
136	No	7		
137	No	250		
138	No	2		
139	No	3		
140	No	170		
			R	
Carried to Collection				
Section No. 4				
Bill No. 10				
Electronics				

	Unit	Quantity	Rate
--	------	----------	------

**PA WITH VOICE EVACUATION**

141	Voice Alarm System Amplifier 360W – 6 Zone	No	1
142	Remote Microphone connects to the VM – 3240VA, VM – 2120 and VM – 2240 for the purpose of making emergency/ general broadcast announcements	No	1
143	Emergency Power supply unit for Evac System ( Supplies DC Power to VX – 2000 and VM – 3000	No	1
144	12 VOLT 65 A/H BATTERY (Special sealed battery certified for use with VA System)	No	2
145	Ceiling Speaker 5Inch 6W, 200 Hz – 20kHz, firedome, Ceramic terminal, thermal fuse, EN54, BS	No	105
146	Wall Speaker White, Certified BS and EN54-24 – suitable for announcement and music	No	5
1471	2-way Bass- Reflex Speaker (30W) Black	No	3
4			
7			
1481	Fire Compliancy Kit ( Porcelain Connector & Thermal Fuse)	No	3
4			
8			
1491	Horn Speaker – Certified BS & EN54-24	No	6
4			
9			
150	16U Rack Incl. DIN Rails, Wiring & Accessories etc.	No	1
151	LABOUR FOR RACK WORK	No	8
1521	LABOUR FOR PROGRAMMING/ SETUP/ COMM	No	1
5			
2			
1531	Fire Retardant Cable 2 x 1mm.sq. – PH30 – 100/100V per m		
5	( Please note this is only an estimate, additional cablling		
3	maybe required)	No	3 600

**ELECTRIC FENCE**

1541	Druid 28 LCD Energizer	No	2
5			
4			
155	Enclosure-Steel Powd/Coat H600x460xD230	No	2
156	Siren-15W-12VDC	No	2

Section No. 4  
 Bill No. 10  
 Electronics

LIMPOPO PROVINCIAL THEATRE

	No	Amount
157 Light – Nemtek Strobe RED LED – 12V	4	
1581 Fence Light- Timed light – Galv- Dark Grey	4	
58		
1591 Druid Keypad – 2 Zone	1	
59		
1601 Double Pole Lightning- Inhibitor/ Divertor	4	
60		

Carried to Collection

R

Section No. 4  
 Bill No. 10  
 Electronics

	Unit	Quantity	Rate
161 Alarm GSM monitoring unit (24 MONTH)	No	2	
1621 Druid 2x Synchronisation module	No	2	
6			
2			
1631 Free Standing- Omega - 2.4m - HDG - 2mm	No	28	
6			
3			
1641 Free Standing - Omega - 2.4 Pregalv Z275	No	405	
6			
4			
1651 Tek Screw - 12 * 25mm HDG	No	3 500	
6			
5			
1661 Free Standing S - Hoog HDG	No	1 700	
6			
6			
167 Combo Tensioner Hybrid - Black BB - 120kg	No	850	
168 Aluminium Wire - Stranded - 2.0mm - 1000	No	40	
1691 Ferrules - 10mm Aluminium (100 pack)	No	25	
6			
9			
1701 Insulator - Omega with Clip- Black	No	12 200	
7			
0			
1711 Warning Sign - Nemtek	No	130	
7			
1			
1721 HT Cable - Black - Aluminium- 100m	No	9	
7			
2			
1731 Earth Spike- Copper - 1.2m (inc nut/washer)	No	45	
7			
3			
1741 Strain Ultra insulator - Black	No	850	
7			
4			
175 Sliding Gate Contact - Universal Bracket	No	2	
176 Sliding Gate Contact - In Line - 3 Way	No	2	

Section No. 4

Bill No. 10

Electronics

1771	Conduit, bends, couplings, sprag, cable ties and drill bits	No	1
1781	Install and setup the above equipment	No	25
1791	Issue a certificate of compliance on the new fence	No	1
1801	Accomodation and meals	No	100
<b>PERIMETER CAMERAS</b>			
181	Custom 6m Pole Power Coated	No	23
182	Dahua 2MP IP Vandal Bullet, 2.7 35mm Lens – 130m IR, 2/1 Alarm in/out, 1/1 audio in/out , Micro SD Memory, IP67, IK10	No	23
1831	4 Core HDD SM (9/125)	No	2 300
184	FIBRE SPLICE TRAY + 24 PORT ST	No	1
185	SCOTCH BOX 12 FIBRE ST	No	23

Amount

Carried to Collection

R

Section No. 4  
 Bill No. 10  
 Electronics



## LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
186	No	23		
187	No	26		
188	No	52		
189	No	52		
190	No	150		
191	No	23		
192	No	23		
193	No	52		
194	No	1		
195	No	23		
196	No	12		
197	No	12		
198	No	12		
199	No	12		
<b><u>ADDITIONAL COSTS</u></b>				
200	No	2		
201	No	1		
202	No	1		
<b><u>LABOUR, PROJECT MANAGEMENT &amp; TRAVEL</u></b>				
203	No	48		
204	No	1		
205	No	1		
Carried to Collection				R
Section No. 4				
Bill No. 10				
Electronics				



	Unit	Quantity	Rate	Amount
223				
Mineral Insulated copper sheathed cables with an Overall polymeric covering, complying with terminations complying with EN 60702-2, BS 7629, BS 7846. With Voltage rating of 300/500V or Greater.	m	800		
224				
20mm <sup>2</sup> Galvanized Conduit	m	560		
<b><u>Fire Detection Level 3</u></b>				
225				
32 Tone Electronic Sounder, 9-28V dc 102db, IP54	No	3		
226				
Red Flashing Beacon, 230V ac	No	15		
227				
Red Break Glass Call Point, Resettable, 87x87x53mm	No	3		
228				
Ionization chamber Smoke Detector	No	14		
229				
12 zone, 2 loops, addressable Fire Alarm Control Panel with back up Power	No	1		
230				
Mineral Insulated copper sheathed cables with an Overall polymeric covering, complying with terminations complying with EN 60702-2, BS 7629, BS 7846. With Voltage rating of 300/500V or Greater.	m	450		
231				
20mm <sup>2</sup> Galvanized Conduit	m	315		
<b><u>Fire Detection Level 4</u></b>				
232				
32 Tone Electronic Sounder, 9-28V dc 102db, IP54	No	2		
233				
Red Flashing Beacon, 230V ac	No	8		
234				
Red Break Glass Call Point, Resettable, 87x87x53mm	No	2		
235				
Ionization chamber Smoke Detector	No	9		
236				
Mineral Insulated copper sheathed cables with an Overall polymeric covering, complying with terminations complying with EN 60702-2, BS 7629, BS 7846. With Voltage rating of 300/500V or Greater.	m	450		
237				
20mm <sup>2</sup> Galvanized Conduit	m	315		
<b><u>Fire Detection Level 5</u></b>				
238				
32 Tone Electronic Sounder, 9-28V dc 102db, IP54	No	5		
239				
Red Flashing Beacon, 230V ac	No	14		
240				
Red Break Glass Call Point, Resettable, 87x87x53mm	No	3		
Carried to Collection				
Section No. 4				
Bill No. 10				
Electronics				
231				
251				

	Unit	Quantity	Rate	Amount
241	Ionization chamber Smoke Detector	No	14	
242	Mineral Insulated copper sheathed cables with an Overall polymeric covering, complying with terminations complying with EN 60702-2, BS 7629, BS 7846. With Voltage rating of 300/500V or Greater.	m	450	
243	20mm <sup>2</sup> Galvanized Conduit	m	315	
<b><u>Fire Detection Guard House</u></b>				
244	32 Tone Electronic Sounder, 9-28V dc 102db, IP54	No	1	
245	Red Flashing Beacon, 230V ac	No	3	
246	Red Break Glass Call Point, Resettable, 87x87x53mm	No	3	
247	Ionization Chamber Smoke Detector	No	6	
248	Mineral Insulated copper sheathed cables with an Overall polymeric covering, with terminations complying with EN 60702-2, BS 7629, BS 7846. With Voltage rating of 300/500V or Greater.	m	450	
249	20mm <sup>2</sup> Galvanized Conduit	m	315	
Carried to Collection				R
Section No. 4				
Bill No. 10				
Electronics				

Amount

**BILL NO. 10**  
**ELECTRONICS**  
**COLLECTION**

Page No

Brought Forward from Page

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

Carried To Section Summary

R

Section No. 4  
Bill No. 10  
Electronics

Amount

**SECTION NO. 4**

**ELECTRICAL INSTALLATION**

**SECTION SUMMARY**

Bill No.

Page

- 1 SUPPLEMENTARY PREAMBLES
- 2 SITEWORKS
- 3 LEVEL 1
- 4 LEVEL 2
- 5 LEVEL 3
- 6 LEVEL 4
- 7 LEVEL 5
- 8 GUARD HOUSE
- 9 ELECTRICAL PROVISIONAL SUMS
- 10 ELECTRONICS

- 177
- 184
- 189
- 195
- 200
- 204
- 208
- 212
- 213
- 230

Carried to Final Summary

R

Section No. 4  
SECTION SUMMARY

**SECTION NO. 5**  
**MECHANICAL INSTALLATION**

Amount

**SECTION NO. 5**

**MECHANICAL INSTALLATION**

**BILL NO. 1**

**PRELIMINARIES**

**(CPAP WORK GROUP NO. 190 UNLESS OTHERWISE STATED)**

**GENERAL PRELIMINARIES**

1	Fixed Cost Items (SABS 1500 sa 8.3) F: ..... V: ..... T: .....	Item
2	Contract Requirements F: ..... V: ..... T: .....	Item
3	Site Establishment F: ..... V: ..... T: .....	Item
4	Office & Stores F: ..... V: ..... T: .....	Item
5	Workshop F: ..... V: ..... T: .....	Item
6	Ablutions & Latrines F: ..... V: ..... T: .....	Item
7	Water, Electricity and Telephone connections F: ..... V: ..... T: .....	Item
8	Removal of Contractor's site facilities upon completion F: ..... V: ..... T: .....	Item
9	Variables with Contract Period (SABS 1500 SA 8.4) F: ..... V: ..... T: .....	Item
10	Contractual Requirements F: ..... V: ..... T: .....	Item
11	Operate and maintain facilities on site as per site establishment items F: ..... V: ..... T: .....	Item
12	Company Head Office overhead costs F: ..... V: ..... T: .....	Item
13	Supervision F: ..... V: ..... T: .....	Item
14	Labour F: ..... V: ..... T: .....	Item

Carried to Collection

R

Section No. 5  
Bill No. 1  
Preliminaries



		Amount
15	Allow for joint programming of all aspects of the work with the appointed Main contractor undertaking the building contract so that each Contractor has access. Allow for disruptions as may occur arising from jointly working on the site. No claims for delays or associated P&G costs will be entertained F: ..... V: ..... T: .....	Item
	<b>Compliance</b>	
16	Quality & Scope of Work F: ..... V: ..... T: .....	Item
17	Compliance with Regulations and Standards F: ..... V: ..... T: .....	Item
18	Compliance with OHS Regulations (latest version) F: ..... V: ..... T: .....	Item
19	Clearing of rubble F: ..... V: ..... T: .....	Item
20	Supports F: ..... V: ..... T: .....	Item
21	Scaffolding F: ..... V: ..... T: .....	Item
22	Protection against corrosion F: ..... V: ..... T: .....	Item
23	Protection of Equipment against damage during construction F: ..... V: ..... T: .....	Item
24	Programming and phasing of work on a live site F: ..... V: ..... T: .....	Item
25	Transport and delivery F: ..... V: ..... T: .....	Item
26	Rigging and crane hire F: ..... V: ..... T: .....	Item
27	Guarantee of Equipment as per specification in MONTHS F: ..... V: ..... T: .....	Month
28	Maintenance of Equipment as per specification in YEARS F: ..... V: ..... T: .....	Year
29	Training of end user as specified F: ..... V: ..... T: .....	Item
30	Provision of spare parts and all related accessories F: ..... V: ..... T: .....	Item
31	Builders work as required F: ..... V: ..... T: .....	Item
	Carried to Collection	R
Section No. 5		
Bill No. 1		
Preliminaries		

Amount

32 Electrical work as required

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

Item

33 Workshop Drawings

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

Item

34 Testing, balancing and commissioning

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

Item

35 Documentation

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

Item

36 Equipment Instructions laminated, bound together and inserted in holder inside outer panel door.

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

Item

37 O & M manuals including as built drawings in hard copy and on CD

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

Sets

38 2 Year Service during guarantee period

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

Item

Carried to Collection

R

Section No. 5  
Bill No. 1  
Preliminaries

Amount

**BILL NO. 1**

**PRELIMINARIES**

**COLLECTION**

Page No

Brought Forward from Page

233

234

235

Carried To Section Summary

R

Section No. 5  
Bill No. 1  
Preliminaries

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 5</b>				
<b><u>MECHANICAL INSTALLATION</u></b>				
<b><u>BILL NO. 2</u></b>				
<b><u>HEATING, VENTILATION AND AIR-CONDITIONING</u></b>				
<b><u>HEATING, VENTILATION AND AIR CONDITIONING</u></b>				
Manufacture (where required), supply, delivery, installation, commissioning and testing of all systems stated below. Rates to be inclusive any and all associated costs. Refer to detailed specification before pricing Backstage				
1	No	2		
Backstage Air Handling Unit Location of Installation: Backstage C Cap: 90 kW T H Cap: 90 kW Air Supply: 1650L/s @ 450Pa Supply: 3Ph / 380-420V / 50Hz				
2	Sets	1		
Backstage Outdoor Condenser Unit Location of Installation: Roof Cooling Capacity: 180 kW Heating Capacity: 180 kW Electrical Power Supply: 3Ph / 380-415V / 50Hz				
3	No	1		
AHU to Condenser Kit Supply: 1Ph / 220-240V / 50Hz				
4	No	1		
AHU to Condenser EEV Kit Supply: 1Ph / 220-240V / 50Hz				
5	No	1		
AHU to Condenser Control Kit Supply: 1Ph / 220-240V / 50Hz				
6	No	1		
Wired Remote Control				
<b>AC/Armaflex Insulated Hard drawn Refrigeration Copper Pipes</b>				
7	m	24		
Ø12.7mm				
8	m	94		
Ø19.05mm				
9	m	8		
Ø28.58mm				
10	m	8		
Ø34.92mm				
11	m	92		
Ø41.28mm				
12	No	3		
Outdoor Unit Y Joint				
13	No	2		
Indoor Unit Y Joint				
14	m	28		
100mm Wide 0.5mm Thick Sheet Metal Galvanised Steel Cable Tray with Cover				
15	m	72		
200mm Wide 0.5mm Thick Sheet Metal Galvanised Steel Cable Tray with Cover				
			R	
Carried to Collection				
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

	Unit	Quantity	Rate	Amount
16	WÜRTH R410a Refrigeration Gas	Kg	25	
	<b>Backstage Air Supply Distribution Ducting Network Dual Wall Insulated (51mm Fibrous Glass Duct Wrap) Galvanized Steel Ducting as per SANS 1238:2002</b>			
17	1200 x 1000mm to 900 x 750mm – Transformer	No	2	
18	900 x 750mm x 1m Rectangular Duct Silencer	No	2	
19	900 x 750mm x 90° Bend	No	4	
20	900 x 750mm Rectangular Straight Duct	m	10	
21	900 x 750mm to 600 x 750 Reducer	No	2	
22	650 x 750mm Rectangular Straight Duct	m	6	
23	600 x 750mm to 400 x 600 Reducer	No	2	
24	400 x 600mm Rectangular Straight Duct	m	6	
25	400 x 600mm Stop Eng	No	2	
	<b>Backstage Return Air Supply Distribution Ducting Network Dual Wall Insulated (51mm Fibrous Glass Duct Wrap) Galvanized Steel Ducting as per SANS 1238:2002</b>			
26	1200 x 1000mm to 900 x 750mm – Transformer	No	2	
27	900 x 750mm x 90° Bend	No	4	
	<b>Duct Support Structure, Diffusers, Balancing Dampers and Grilles</b>			
28	Vertical Duct Support Structure Material: Angle Iron Bolted to Wall	No	28	
29	Horizontal Duct Support Structure Material: Angle Iron Bolted to Floor Slab	No	6	
30	Aluminium, with a standard Powder Paint Finish Jet Diffuser complete with Duct Adapter and Air Balancing Damper Size: Ø 500 mm, Neck: Ø 200 mm, Flow: 500L/s	No	6	
31	800 x 800mm Aluminium External Wall Mounted Weather Louvered Grille	No	2	
32	900 x 750mm Aluminium Weather Louvered Grille	No	1	
33	900 x 750mm Rectangular Balancing Damper	No	2	
	Carried to Collection			R
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

	Unit	Quantity	Rate	Amount
34	No	2		
35	No	2		
<b>Public Circulation / Lobby HVAC System</b>				
36	No	1		
37	Sets	1		
38	No	1		
39	No	1		
40	No	1		
41	No	1		
<b>AC/Armaflex Insulated Hard drawn Refrigeration Copper Pipes</b>				
42	m	8		
43	m	10		
44	m	62		
45	m	4		
46	m	8		
47	m	8		
48	m	60		
49	m	38		
50	m	52		
51	No	5		
52	No	2		
53	m	14		
Carried to Collection			R	
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

	Unit	Quantity	Rate	Amount
54				
200mm Wide 0.5mm Thick Sheet Metal Galvanised Steel Cable Tray with Cover	m	28		
55				
WÜRTH R410a Refrigeration Gas	Kg	32		
<b>Public Circulation / Lobby Air Supply Distribution Ducting Network Dual Wall Insulated (51mm Fibrous Glass Duct Wrap) Galvanized Steel Ducting as per SANS 1238:2002</b>				
56				
1500 x 1200mm to 900 x 1000mm – Transformer	No	1		
57				
900 x 1000mm x 1.2m Rectangular Duct Silencer	No	2		
58				
900 x 1000mm x 90° Bend	No	2		
59				
900 x 1100mm Rectangular Straight Duct	m	20		
60				
900 x 1100mm to 750 x 900 to 750 x 750 – 3 Way Junction and Reducers	No	1		
61				
900 x 750mm Rectangular Straight Duct	m	10		
62				
900 x 750mm to 600 x 750 Reducer	No	2		
63				
650 x 750mm Rectangular Straight Duct	m	6		
64				
600 x 750mm to 400 x 600 Reducer	No	2		
65				
400 x 600mm Rectangular Straight Duct	m	6		
66				
400 x 600mm Stop Eng	No	2		
<b>Public Circulation / Lobby Return Air Supply Distribution Ducting Network Dual Wall Insulated (51mm Fibrous Glass Duct Wrap) Galvanized Steel Ducting as per SANS 1238:2002</b>				
67				
1500 x 1200mm to 900 x 1000mm – Transformer	No	1		
68				
900 x 1000mm x 90° Bend	No	2		
69				
900 x 1100mm Rectangular Straight Duct	m	10		
<b>Duct Support Structure, Diffusers, Balancing Dampers and Grilles</b>				
70				
Vertical Duct Support Structure Material: Angle Iron Bolted to Wall	No	28		
71				
Horizontal Duct Support Structure Material: Angle Iron Bolted to Floor Slab	No	6		
Carried to Collection			R	
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

	Unit	Quantity	Rate	Amount
72	Aluminium, with a standard Powder Paint Finish Jet Diffuser complete with Duct Adapter and Air Balancing Damper Size: Ø 500 mm, Neck: Ø 200 mm, Flow: 500L/s	No	6	
73	800 x 800mm Aluminium External Wall Mounted Weather Louvered Grille	No	2	
74	900 x 750mm Aluminium Weather Louvered Grille	No	1	
75	900 x 750mm Rectangular Balancing Damper	No	2	
76	650 x 750mm Rectangular Balancing Damper	No	2	
77	400 x 600mm Rectangular Balancing Damper	No	2	
<b>Main Theatre HVAC System</b>				
78	Public Circulation / Lobby Air Handling Unit Location of Installation: Concrete Roof C Cap: 235kW H Cap: 235 kW Air Supply: 3200L/s @ 550Pa Supply: 3Ph / 380-420V / 50Hz	No	2	
79	Public Circulation / Lobby Outdoor Condenser Unit Location of Installation: Roof Cooling Capacity: 470 kW Heating Capacity: 470 kW Electrical Power Supply: 3Ph / 380-415V / 50Hz	Sets	1	
80	AHU to Condenser Kit Supply: 1Ph / 220-240V / 50Hz	No	2	
81	AHU to Condenser EEV Kit Supply: 1Ph / 220-240V / 50Hz	No	2	
82	AHU to Condenser Control Kit Supply: 1Ph / 220-240V / 50Hz	No	2	
<b>AC/Armaflex Insulated Hard drawn Refrigeration Copper Pipes</b>				
83	Ø15.88mm	m	8	
84	Ø19.05mm	m	35	
85	Ø22.22mm	m	75	
86	Ø28.58mm	m	8	
87	Ø31.75mm	m	20	
88	Ø34.92mm	m	4	
89	Ø38.1mm	m	25	
90	Ø41.28mm	m	50	
91	Ø53.98mm	m	125	
Carried to Collection				<b>R</b>
Section No. - 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				



	Unit	Quantity	Rate	Amount
92	Refnet Joint (MXJ-YA4422M)	No	4	
93	Outdoor Unit Joint (MXJ-TA3419M)	No	4	
94	Outdoor Unit Joint (MXJ-TA4122M)	No	6	
95	100mm Wide Galvanised Steel Wire Cable Tray	m	26	
96	200mm Wide Galvanised Steel Wire Cable Tray	m	76	
97	WÜRTH R410a Refrigeration Gas	Kg	81	
	<b>Main Theatre Air Supply Distribution Ducting Network Dual Wall Insulated (51mm Fibrous Glass Duct Wrap) Galvanized Steel Ducting as per SANS 1238:2002</b>			
98	1200 x 1000mm to 850 x 850mm – Transformer	No	2	
99	850 x 850mm to 850 x 850mm to 350 x 850mm – 3 Way Junction	No	2	
100	850 x 850mm to 500 x 850mm to 350 x 850mm – 3 Way Junction	No	2	
101	500 x 850mm to 350 x 850mm to 350 x 850mm – 3 Way Junction	No	2	
102	850 x 850mm Rectangular Duct 90° Bend	No	8	
103	350 x 850mm Rectangular Duct 90° Bend	No	2	
104	Ø150mm Round Duct 90° Bend (Connected to 350 x 850mm Rectangular Duct)	No	72	
105	350 x 850mm Rectangular Straight Duct	m	108	
106	500 x 850mm Rectangular Straight Duct	m	10	
107	850 x 850mm Rectangular Straight Duct	m	60	
108	Ø150mm Round Straight Duct	m	108	
109	Ø150mm Round Straight Duct (Flexible)	m	36	
	<b>Main Theatre Return Air Supply Distribution Ducting Network Dual Wall Insulated (51mm Fibrous Glass Duct Wrap) Galvanized Steel Ducting as per SANS 1238:2002</b>			
110	1200 x 1000mm to 850 x 850mm – Transformer	No	1	
111	850 x 850mm x 90° Bend	No	1	
	Carried to Collection			R
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

	Unit	Quantity	Rate	Amount
112	m	15		
<b>Duct Support Structure, Diffusers, Balancing Dampers and Grilles</b>				
113	No	105		
114	No	358		
115	No	144		
116	No	2		
117	No	1		
118	No	8		
119	No	144		
<b>Second Theatre HVAC System</b>				
120	Sets	1		
121	No	2		
122	No	2		
<b>AC/Armaflex Insulated Hard drawn Refrigeration Copper Pipes</b>				
123	m	80		
124	m	82		
125	m	83		
126	m	58		
127	m	80		
128	m	48		
Carried to Collection				R
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

	Unit	Quantity	Rate
129 Ø28.58mm	m	32	
130 Ø34.92mm	m	31	
131 Ø41.28mm	m	4	
132 Refnet Joint (MXJ-YA2815M)	No	1	
133 100mm Wide Galvanised Steel Wire Cable Tray	m	42	
134 200mm Wide Galvanised Steel Wire Cable Tray	m	92	
135 WÜRTH R410a Refrigeration Gas	Kg	42	
<b>Second Theatre Air Distribution Ducting Network Comprifix Insulated Flanged Galvanised Steel Ducting as per SANS 1238:2002 E2</b>			
136 800 x 500mm to Ø600mm – Transformer	No	2	
137 600 x 600mm to Ø600mm – Transformer	No	2	
138 600 x 500mm to Ø600mm – Transformer	No	2	
139 400 x 400mm to Ø400mm – Transformer	No	2	
140 Ø500mm to Ø450mm x Ø200mm to Ø200mm – 4 Way Junction	No	2	
141 Ø450mm to Ø350mm x Ø200mm to Ø200mm – 4 Way Junction	No	2	
142 Ø350mm to Ø250mm x Ø200mm to Ø200mm – 4 Way Junction	No	2	
143 Ø250mm to Ø250mm x Ø200mm to Ø200mm – 4 Way Junction	No	2	
144 Ø600mm Round Duct 90° Bend	No	2	
145 Ø500mm Round Duct 90° Bend	No	2	
146 Ø200mm Round Duct 90° Bend	No	16	
147 Ø600mm Round Duct	m	12	
148 Ø500mm Round Duct	m	8	
149 Ø450mm Round Duct	m	8	
1501 Ø400mm Round Duct	m	12	
5			
0			

Section No. 5

Bill No. 2

Heating, Ventilation And Air-conditioning

Amount

Carried to Collection

R

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

	Unit	Quantity	Rate	Amount
151	Ø350mm Round Duct	m	8	
152	Ø250mm Round Duct	m	8	
153	Ø200mm Round Duct	m	32	
5				
3				
154	Ø250mm Round Duct End Cap	No	4	
5				
4				
155	600 x 600mm Filter Box with Washable Bag Filter (with Ø600mm inlet and outlet)	No	2	
5				
5				
156	Ø600mm Fire Smoke Damper	No	2	
157	400 x 400mm Filter Box with Washable Bag Filter (with Ø400mm inlet and outlet)	No	2	
158	Ø400mm Fire Smoke Damper	No	2	
159	VAV Box (3 Way) Inlet 1: Ø600mm, Inlet 2: Ø400mm Outlet: Ø750mm	No	2	
160	Hanging Duct Support Structure Material: Angle Iron with Hanging Rods Hooked onto Roof Structure	No	56	
161	Powder Coated Constant Volume Diffuser with Duct Adapter and Air Flow Balancing Damper Size: 600 x 600mm, Neck: Ø200mm, Flow: 100L/s	No	16	
162	600 x 600mm Aluminium Louvered Return Air Grille	No	2	
163	600 x 600mm to Ø600mm Neck – Transformer	No	2	
164	400 x 400mm Aluminium Weather Louvered Wall Grille	No	2	
165	400 x 400mm to Ø400mm Neck – Transformer	No	2	
166	Ø500mm x 1m Round Duct Silencer	No	2	
167	Ø200mm x 1m Round Duct Silencer	No	16	
	<b>South Wing System</b>			
168	North Wing Outdoor Condenser Unit Location of Installation: Roof Cooling Capacity: 78.6 kW Heating Capacity: 88.2 kW Electrical Power Supply: 3Ph / 380-415V / 50Hz"	No	1	
169	Dance Studio 1 Hide Away Unit C Cap: 22.4kW H Cap: 25.0kW Supply: 1Ph / 220-240V / 50Hz	No	1	
	Section No. 5			
	Bill No. 2			
	Heating, Ventilation And Air-conditioning			

LIMPOPO PROVINCIAL THEATRE

Carried to Collection

R



	Unit	Quantity	Rate	Amount
190	No	2		
191	No	2		
192	m	62		
193	m	56		
194	Kg	40		
<b>Dance Studio 1, Poetry Room 1 and 2 Air Distribution Ducting Network Comprifix Insulated Flanged Galvanised Steel Ducting as per SANS 1238:2002 E2</b>				
195	No	6		
196	No	3		
197	No	3		
198	No	3		
199	No	3		
200	No	12		
201	m	22		
202	m	12		
203	m	13		
204	m	48		
205	No	3		
206	No	3		
207	No	3		
208	No	3		
209	No	6		
210	No	6		
Carried to Collection				R
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				



	Unit	Quantity	Rate	Amount
211				
Hanging Duct Support Structure Material: Angle Iron with Hanging Rods Hooked onto Roof Structure	No	45		
212				
Powder Coated Constant Volume Diffuser with Duct Adapter and Air Flow Balancing Damper Size: 600 x 600mm, Neck: Ø300mm, Flow: 225L/s	No	12		
213				
500 x 500mm Aluminium Louvered Return Air Grille	No	3		
214				
500 x 500mm to Ø450mm Neck – Transformer	No	3		
215				
300 x 300mm Aluminium Weather Louvered Wall Grille	No	3		
216				
300 x 300mm to Ø300mm Neck – Transformer	No	3		
217				
Ø550mm x 1m Round Duct Silencer	No	3		
218				
Ø300mm x 1m Round Duct Silencer	No	12		
<b>Dance Studio 2, Air Distribution Ducting Network Comprifix Insulated Flanged Galvanised Steel Ducting as per SANS 1238:2002 E2</b>				
219				
600 x 500mm to Ø400mm – Transformer	No	6		
220				
Ø400mm x Ø300mm to Ø300mm – 3 Way Junction	No	1		
221				
Ø400mm Round Duct 90° Bend	No	1		
222				
Ø350mm Round Duct 90° Bend	No	1		
223				
Ø300mm Round Duct 90° Bend	No	1		
224				
Ø250mm Round Duct 90° Bend	No	1		
225				
Ø400mm Round Duct	m	8		
226				
Ø300mm Round Duct	m	4		
227				
350 x 350mm Filter Box with Washable Bag Filter (with Ø350mm inlet and outlet)	No	1		
228				
Ø350mm Fire Smoke Damper	No	1		
229				
250 x 250mm Filter Box with Washable Bag Filter (with Ø250mm inlet and outlet)	No	1		
230				
Ø250mm Fire Smoke Damper	No	1		
231				
VAV Box (3 Way) – Inlet 1: Ø400mm, Inlet 2: Ø250mm, Outlet: Ø400mm	No	1		
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

Carried to Collection

LIMPOPO PROVINCIAL THEATRE  
R

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

254

274

	Unit	Quantity	Rate	Amount
232				
Hanging Duct Support Structure Material: Angle Iron with Hanging Rods Hooked onto Roof Structure	No	22		
233				
Powder Coated Constant Volume Diffuser with Duct Adapter and Air Flow Balancing Damper Size: 600 x 600mm, Neck: Ø300mm, Flow: 325L/s	No	2		
234				
400 x 400mm Aluminium Louvered Return Air Grille	No	1		
235				
400 x 400mm to Ø350mm Neck - Transformer	No	1		
236				
250x 250mm Aluminium Weather Louvered Wall Grille	No	1		
237				
250x 250mm to Ø250mm Neck - Transformer	No	1		
238				
Ø400mm x 1m Round Duct Silencer	No	1		
239				
Ø300mm x 1m Round Duct Silencer	No	2		
<b>Central System</b>				
240				
Central System Outdoor Unit Cooling / Heating Capacity: 22.4 / 25.2 kW	No	1		
241				
Office Bookshop Indoor Cassette Unit Cooling / Heating Capacity: 5.6 / 6.3 kW	No	1		
242				
Audio and Video Indoor High Wall Unit Cooling / Heating Capacity: 2.8 / 3.2 kW	No	1		
243				
Finance Office Indoor High Wall Unit Cooling / Heating Capacity: 2.8 / 3.2 kW	No	1		
244				
Box Office Indoor High Wall Unit Cooling / Heating Capacity: 2.8 / 3.2 kW	No	1		
245				
Control High Wall Unit Cooling / Heating Capacity: 2.8 / 3.2 kW	No	1		
246				
Mode Change Unit Type 1 (MCU-S4NEK3N)	No	1		
247				
Mode Change Unit Type 2 (MCU-S6NEK2N)	No	1		
248				
Wireless Remote Control	No	4		
249				
Wired Remote Control	No	1		
<b>AC/Armaflex Insulated Hard drawn Refrigeration Copper Pipes</b>				
250				
Ø6.35mm	m	175		
Carried to Collection				R
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				

	Unit	Quantity	Rate
251 Ø12.7mm	m	275	
252 Ø15.88mm	m	105	
253 Ø19.05mm	m	98	
254 Ø22.22mm	m	16	
255 Refnet Joint (MXJ-YA2512M)	No	1	
256 Refnet Joint (MXJ-YA2500M)	No	1	
257 100mm Wide Galvanised Steel Wire Cable Tray	m	98	
258 200mm Wide Galvanised Steel Wire Cable Tray	m	75	
259 WÜRTH R410a Refrigeration Gas	Kg	25	
<b>North Wing System</b>			
260 North Wing Outdoor Unit Cooling / Heating Capacity: 72.8 / 81.9 kW	No	1	
261 Rehearsal 1 Indoor Hideaway Unit Cooling / Heating Capacity: 22.4 / 25.0 kW	No	1	
262 Rehearsal 2 Indoor Hideaway Unit Cooling / Heating Capacity: 9.0 / 10.0 kW	No	1	
263 Green Room Indoor Cassette Unit Cooling / Heating Capacity: 5.6 / 6.3 kW	No	1	
264 Male and Female Change Room Indoor Cassette Unit Cooling / Heating Capacity: 5.6 / 6.3 kW	No	2	
265 Restaurant Cassette Unit Cooling / Heating Capacity: 5.6 / 6.3 kW	No	2	
2662 Training Room Indoor Cassette Unit Cooling / Heating Capacity: 5.6 / 6.3 kW 6	No	1	
267 Dressing Room Indoor High Wall Unit Cooling / Heating Capacity: 2.8 / 3.2 kW	No	5	
2682 Mode Change Unit Type 1 (MCU-S4NEK3N) 6 8	No	2	
2692 Mode Change Unit Type 2 (MCU-S6NEK2N) 6 9	No	1	
2702 70 Section No. 5 Bill No. 2 Heating, Ventilation And Air-conditioning			Mode Change Unit Type 2 (MCU-S2NEK2N)

No 1

Amount

Carried to Collection

R

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

	Unit	Quantity	Rate
271 Wired Remote Control	No	13	
<b>AC/Armaflex Insulated Hard drawn Refrigeration Copper Pipes</b>			
2722 Ø6.35mm	m	155	
7			
2			
2732 Ø9.52mm	m	19	
7			
3			
2742 Ø12.7mm	m	192	
7			
4			
2752 Ø15.88mm	m	83	
7			
5			
276 Ø19.05mm	m	105	
277 Ø22.22mm	m	80	
2782 Ø28.58mm	m	144	
7			
8			
2792 Ø34.92mm	m	80	
7			
9			
2802 Refnet Joint (MXJ-TA3419M)	No	1	
8			
0			
2812 Refnet Joint (MXJ-YA3100M)	No	1	
8			
1			
2822 Refnet Joint (MXJ-YA2512M)	No	2	
8			
2			
283 Refnet Joint (MXJ-YA2500M)	No	2	
284 100mm Wide Galvanised Steel Wire Cable Tray	m	126	
285 200mm Wide Galvanised Steel Wire Cable Tray	m	89	
2862 WÜRTH R410a Refrigeration Gas	Kg	41	
8			
6			

Section No. 5

Bill No. 2

Heating, Ventilation And Air-conditioning

**Rehearsal 1 Air Distribution Ducting Network Comprifix Insulated Flanged Galvanised Steel Ducting as per SANS 1238:2002 E2**

		No	
2872	800 x 600mm to Ø600mm – Transformer	No	2
8			
7			
288	Ø550mm to Ø400mm x Ø300mm to Ø300mm – 4 Way Junction	No	1
289	Ø400mm to Ø400mm x Ø300mm to Ø300mm – 4 Way Junction	No	1
290	Ø550mm Round Duct 90° Bend	No	1
291	Ø450mm Round Duct 90° Bend	No	1
292	Ø300mm Round Duct 90° Bend	No	4

Amount

Carried to Collection

R

	Unit	Quantity	Rate
293 Ø550mm Round Duct	m	7	
294 Ø450mm Round Duct	m	4	
295 Ø400mm Round Duct	m	4	
2962 Ø300mm Round Duct	m	16	
9			
6			
2972 Ø400mm Round Duct End Cap	No	1	
9			
7			
2982 450 x 450mm Filter Box with Washable Bag Filter (with 9 Ø450mm inlet and outlet)	No	1	
8			
299 Ø450mm Fire Smoke Damper	No	1	
300 300 x 300mm Filter Box with Washable Bag Filter (with Ø300mm inlet and outlet)	No	1	
301 Ø300mm Fire Smoke Damper	No	2	
302 VAV Box (3 Way) Inlet 1: Ø450mm, Inlet 2: Ø300mm, Outlet: Ø550mm	No	2	
303 Hanging Duct Support Structure Material: Angle Iron with Hanging Rods Hooked onto Roof Structure	No	15	
304 Powder Coated Constant Volume Diffuser with Duct Adapter and Air Flow Balancing Damper Size: 600 x 600mm, Neck: Ø300mm, Flow: 225L/s	No	4	
305 500 x 500mm Aluminium Louvered Return Air Grille	No	1	
306 500 x 500mm to Ø450mm Neck – Transformer	No	1	
307 300 x 300mm Aluminium Weather Louvered Wall Grille	No	1	
308 300 x 300mm to Ø300mm Neck – Transformer	No	1	
309 Ø550mm x 1m Round Duct Silencer	No	1	
310 Ø300mm x 1m Round Duct Silencer	No	4	
<b>Rehearsal 2, Air Distribution Ducting Network Comprifix Insulated Flanged Galvanised Steel Ducting as per SANS 1238:2002 E2</b>			
311 600 x 500mm to Ø400mm – Transformer	No	6	
312 Ø400mm x Ø300mm to Ø300mm – 3 Way Junction	No	1	

Section No. 5

Bill No. 2

Heating, Ventilation And Air-conditioning



313 Ø400mm Round Duct 90° Bend

No

1

Amount

Carried to Collection

R

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

	Unit	Quantity	Rate
314 Ø350mm Round Duct 90° Bend	No	1	
315 Ø300mm Round Duct 90° Bend	No	1	
316 Ø250mm Round Duct 90° Bend	No	1	
317 Ø400mm Round Duct	m	8	
318 Ø300mm Round Duct	m	4	
3193 350 x 350mm Filter Box with Washable Bag Filter (with 1 Ø350mm inlet and outlet) 9	No	1	
320 Ø350mm Fire Smoke Damper	No	1	
321 250 x 250mm Filter Box with Washable Bag Filter (with Ø250mm inlet and outlet)	No	1	
322 Ø250mm Fire Smoke Damper	No	1	
323 VAV Box (3 Way) – Inlet 1: Ø400mm, Inlet 2: Ø250mm, Outlet: Ø400mm	No	1	
324 Hanging Duct Support Structure Material: Angle Iron with Hanging Rods Hooked onto Roof Structure	No	22	
325 Powder Coated Constant Volume Diffuser with Duct Adapter and Air Flow Balancing Damper Size: 600 x 600mm, Neck: Ø300mm, Flow: 325L/s	No	2	
326 400 x 400mm Aluminium Louvered Return Air Grille	No	1	
327 400 x 400mm to Ø350mm Neck – Transformer	No	1	
328 250x 250mm Aluminium Weather Louvered Wall Grille	No	1	
329 250x 250mm to Ø250mm Neck – Transformer	No	1	
330 Ø400mm x 1m Round Duct Silencer	No	1	
331 Ø300mm x 1m Round Duct Silencer	No	2	
<b>Lobby 1 Female and Male Ablution Facilities</b>			
332 600 x 600mm to Ø450mm – Transformer	No	2	
333 Ø250mm to Ø250mm x Ø150mm to Ø150mm – 4 Way Junction	No	2	
334 Ø350mm to Ø350mm x Ø200mm to Ø200mm – 4 Way Junction	No	2	

Section No. 5

Bill No. 2

Heating, Ventilation And Air-conditioning

LIMPOPO PROVINCIAL THEATRE

Amount

R

Carried to Collection

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

263

283

	Unit	Quantity	Rate
335 Ø450mm to Ø350mm x Ø250mm to Ø250mm – 4 Way Junction	No	2	
336 Ø200mm x Ø150mm to Ø150mm – 3 Way Junction	No	4	
337 Ø150mm x Ø250mm to Ø200mm – 3 Way Junction	No	2	
338 Ø150mm Round Duct 90° Bend	No	32	
339 Ø200mm Round Duct 90° Bend	No	4	
340 Ø350mm Round Duct 90° Bend	No	4	
341 Ø150mm Round Duct	m	54	
342 Ø200mm Round Duct	m	28	
343 Ø350mm Round Duct	m	4	
344 Ø450mm Round Duct	m	8	
3453 Ø250mm Round Duct End Cap	No	2	
4			
5			
3463 Hanging Duct Support Structure Material: Angle Iron with 4 Hanging Rods Hooked onto Roof Structure 6	No	36	
347 Powder Coated Constant Volume Discs with Duct Adapter and Air Flow Balancing Damper Size: Ø150mm, Neck: Ø150mm, Flow: 125L/s	No	24	
3483 600 x 600mm Aluminium Weather Louvered Wall Grille 4 8	No	2	
349 Ø450mm x 1m Round Duct Silencer	No	2	
350 Inline Extraction Fan Airflow: 1500L/s @ 450Pa	No	2	
<b>Lobby 2 Male and Female Ablution Facilities</b>			
351 600 x 600mm to Ø450mm – Transformer	No	2	
352 Ø250mm to Ø250mm x Ø150mm to Ø150mm – 4 Way Junction	No	2	
353 Ø350mm to Ø350mm x Ø200mm to Ø200mm – 4 Way Junction	No	2	
354 Ø450mm to Ø350mm x Ø250mm to Ø250mm – 4 Way Junction	No	2	

Section No. 5

Bill No. 2

Heating, Ventilation And Air-conditioning

355 Ø200mm x Ø150mm to Ø150mm – 3 Way Junction

No

4

Amount

Carried to Collection

R

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

	Unit	Quantity	Rate
356 Ø150mm x Ø250mm to Ø200mm – 3 Way Junction	No	2	
357 Ø150mm Round Duct 90° Bend	No	32	
358 Ø200mm Round Duct 90° Bend	No	4	
359 Ø350mm Round Duct 90° Bend	No	4	
360 Ø150mm Round Duct	m	54	
361 Ø200mm Round Duct	m	28	
362 Ø350mm Round Duct	m	4	
363 Ø450mm Round Duct	m	8	
3643 Ø250mm Round Duct End Cap	No	2	
6			
4			
3653 Hanging Duct Support Structure Material: Angle Iron with 6 Hanging Rods Hooked onto Roof Structure 5	No	36	
3663 Powder Coated Constant Volume Discs with Duct Adapter 6 and Air Flow Balancing Damper Size: Ø150mm, Neck: 6 Ø150mm, Flow: 125L/s	No	24	
3673 600 x 600mm Aluminium Weather Louvered Wall Grille 6 7	No	2	
368 Ø450mm x 1m Round Duct Silencer	No	2	
369 Upblast Extraction Fan Airflow: 1500L/s @ 450Pa	No	2	
<b>Male and Female Ablution Facilities</b>			
370 600 x 600mm to Ø450mm – Transformer	No	2	
371 Ø250mm to Ø250mm x Ø150mm to Ø150mm – 4 Way Junction	No	2	
372 Ø350mm to Ø350mm x Ø200mm to Ø200mm – 4 Way Junction	No	2	
373 Ø450mm to Ø350mm x Ø250mm to Ø250mm – 4 Way Junction	No	2	
374 Ø200mm x Ø150mm to Ø150mm – 3 Way Junction	No	4	
375 Ø150mm x Ø250mm to Ø200mm – 3 Way Junction	No	2	
376 Ø150mm Round Duct 90° Bend	No	32	

Section No. 5

Bill No. 2

Heating, Ventilation And Air-conditioning

377 Ø200mm Round Duct 90° Bend

No

4

Amount

Carried to Collection

R

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

	Unit	Quantity	Rate	Amount
378	Ø350mm Round Duct 90° Bend	No	4	
379	Ø150mm Round Duct	m	54	
380	Ø200mm Round Duct	m	28	
381	Ø350mm Round Duct	m	4	
382	Ø450mm Round Duct	m	8	
383	Ø250mm Round Duct End Cap	No	2	
384	Hanging Duct Support Structure Material: Angle Iron with Hanging Rods Hooked onto Roof Structure	No	36	
385	Powder Coated Constant Volume Discs with Duct Adapter and Air Flow Balancing Damper Size: Ø150mm, Neck: Ø150mm, Flow: 125L/s	No	24	
386	600 x 600mm Aluminium Weather Louvered Wall Grille	No	2	
387	Ø450mm x 1m Round Duct Silencer	No	2	
388	Upblast Extraction Fan Airflow: 1500L/s @ 450Pa	No	2	
	<b>Sundries, Testing, Commissioning and System Maintenance</b>			
389	Programming of the Works. (All HVAC Works and Systems)	Lump Sum		
390	System Labelling (Per VRV System)	No	11	
391	Sub-Contractor's workshop drawings in Electronic Format (Revit, AutoCAD and PDF) (Per HVAC System)	No	11	
392	Diffuser Air Flow Balancing	No	144	
393	36 Month Warranty from Original Equipment Manufacturer (OEM) (Per VRV System)	No	11	
394	36 Month Warranty from Original Equipment Manufacturer (OEM) (Per Air Handling Unit)	No	4	
395	6 and 12 Month Post Commissioning Maintenance, including all equipment and sundries (Per VRV System)	No	22	
396	6 and 12 Month Post Commissioning Maintenance, including all equipment and sundries (Per Air Handling Unit)	No	8	
Section No. 5				
Bill No. 2				
Heating, Ventilation And Air-conditioning				



Carried to Collection

LIMPOPO PROVINCIAL THEATRE  
R

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

269

289



Carried to Collection

**R**

Section No. 5  
Bill No. 2  
Heating, Ventilation And Air-conditioning

**BILL NO. 2**

**HEATING, VENTILATION AND AIR-CONDITIONING**

**COLLECTION**

Amount

Page No

Brought Forward from Page

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

Carried To Section Summary

R

Section No. 5

Bill No. 2

Heating, Ventilation And Air-conditioning

272

292



	Unit	Quantity	Rate	Amount
Threaded pipe fittings up to and including 150mm diameter will be malleable cast iron to SABS 509/1975 or BS 143/1952. Flanges up to and including 150mm diameter will be steel plate flanges to SABS 1123/1600/4 or BS 4505/16/4. Welded pipe fittings up to and including 300mm diameter will be of steel butt-weld type to JIS B2304-72. Weld flanges between 100mm and 300mm diameter will be steel plate flanges to SABS 1123/1600/3 or BS 4504/16/3. "Klambon" couplings can be used where deemed necessary. Rate to include Steel Pipe Hangers fixed to roof structure				
2	m	680		
3	m	790		
4	m	560		
<b><u>SPRINKLER HEADS</u></b>				
5	No	1 339		
Supply & installation of Ø15mm, 68°C, Chrome pendant Quick Response K8, 5,0 mm/min density ceiling level				
<b><u>REMOTE TEST VALVES</u></b>				
6	No	6		
Allow for the installation of remote test valves in specified areas.				
<b><u>SPARE PARTS</u></b>				
7	Sets	6		
Spare parts as listed in the ASIB specifications				
<b><u>ASIB INSPECTIONS</u></b>				
8	No	6		
Allow for ASIB inspections				
<b><u>FIRE HYDRANTS</u></b>				
9	No	2		
Supply and install Right Angle Tamperproof Hydrant with 100mm Storz Outlet and 100mm Female BSP Inlet. (Installation downstream of water meter connection).				
10	No	2		
Supply and install Two-Port Booster with 65mm Brass Booster Connectors and a Pressure Gauge and 100mm T/16 Inlet encased in a steel cover with front open. Pressure gauge Dial to read up to 2500kPa. (Installed downstream of Item Above).				
11	No	12		
Internal Ø65 Instantaneous Fire hydrant complete				
Carried to Collection				R
Section No. 5				
Bill No. 3				
Fire Systems				

	Unit	Quantity	Rate	Amount
12				
Supply and install Two-Port Booster with 65mm Brass Booster Connectors and a Pressure Gauge and 100mm T/16 Inlet encased in a steel cover with front open. Pressure gauge Dial to read up to 2500kPa. (Installed downstream of Item Above).	No	2		
<b><u>FIRE HOSE REELS</u></b>				
13				
Supply and install 30 Metre Hose Reel in Metal Cabinet complete with 25mm Chromium plated. Shut-off valve, Aluminium Nozzle, Hose Guide and angle iron fixing bracket.	No	22		
<b><u>FIRE EXTINGUISERS</u></b>				
14				
4.5kg DCP on Chevron Board	No	44		
<b><u>STATUTORY SIGNAGE</u></b>				
15				
Photoluminescent signage and warning notices in accordance with SANS 1186. Parts 1 & 5 incorporating the pictographs in the standard 190mm x 190mm module size encased in Aluminium metal frames with chamfered edges mechanically and securely fixed to walls or roof slabs. Strictly no double sided tape or silicone sealing of statutory signage is allowed.	No	224		
16				
Allow for Illuminated Signage warning notices in accordance with SANS 1186. Parts 1 & 5	No	82		
<b><u>PIPING RETICULATION</u></b>				
All rates supplied in this bill of quantities will be deemed to include scaffolding to any height and fixing piping up to roof height. All piping rates supplied shall include couplings, bends, tees, sockets, pipe supports, anchors, along the running length and backfilling and compaction where pipes are laid in the ground.				
All pipes suspended from concrete slabs, roof, ceiling, etc, shall be deemed to include in the rates all necessary hanger brackets, threaded rods (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab.				
All pipes are generally to be concealed inside ducts, ceiling voids except where it is necessary to feed an appliance and fixed with standard type pipe supports and brackets spaced at intervals strictly as per manufacturer's recommendations.				
			Carried to Collection	R
Section No. 5 Bill No. 3 Fire Systems				

	Unit	Quantity	Rate	Amount
<p>All above-ground firewater pipes (Galvanised Steel Pipework and Fittings), shall be Medium Grade Galvanised Steel to SANS 62 Part 1 for nominal sizes from 25mm up to and including 150mm above which pipes shall be Heavy Grade Galvanised Steel to SANS 719. All pipes and fittings shall be installed strictly in accordance with the manufacturer's specifications, and recommendations.</p> <p>Pipes shall be colour coded in accordance with the requirements of SANS 10140 Identification Colour Marking – Part 3: 2017 Contents of Pipelines or similar approved in close consultation with the engineer.</p>				
<b>Medium Grade Steel Pipes</b>				
17	m	480		
18	m	382		
19	m	220		
20	m	380		
21	m	10		
22	m	306		
23	m	52		
<b><u>HDPE PN 16 pipes and fittings to SANS 966 Part 1: 2019 suitable for below-ground applications for the conveyance of potable water in reticulation systems in which continuous temperatures in excess of 25 °C are not encountered</u></b>				
24	m	1 280		
25	m	292		
26	m	80		
<b><u>FIRE PROTECTION PUMP</u></b>				
<b>Manufacture, Supply, Deliver, Install, Test and Commission</b>				
27				
ASIB Approved Back-Up Fire Protection Pump Performance Parameters;				
8Bar and 44L/s at outlet				
Carried to Collection				R
Section No. 5				
Bill No. 3				
Fire Systems				



	Unit	Quantity	Rate	Amount
Comprising				
2 x Diesel Driven Pump complete with engine and auto start control panel 2 x Electrical Driven Pump complete with auto start control panel				
1 x Electrical Driven Jockey Pump complete with auto start control panel				
2 x pressure switches				
Set of 110mm Diameter flanged galvanised steel piping complete with isolating valves for water inlet				
Set of 110mm Diameter flanged galvanised steel piping complete with isolating valves and pressure guages and pressure switches for water outlet				
All pumps to be mounted on baseplates with damping mounts				
28	Sets	2		
	Rate only	1		
29	No	1		
30	No	1		
31	No	1		
<b><u>FIRE WATER STEEL TANK</u></b>				
Manufacture, Supply, Deliver, Install, Test and Commission				
32				
Galvanized Steel Circular Steel Tank				
Capacity: 313kL				
Diameter: 10.78m				
Height: 3.45m				
80mm Inlet with gate valve				
200mm outlet with gate valve				
50mm overflow				
Standard Access Ladder				
Duct Cover/Verin Proof				
Water Indicator Level				
	No	2		
Carried to Collection				
			R	
Section No. 5				
Bill No. 3				
Fire Systems				

	Unit	Quantity	Rate	Amount
33	Provision for Base Footings and Structural Platform/Plinth			
	Diameter: 14.00m			
	Depth: 2m			
	Concrete: 28m <sup>3</sup> 40Mpa Concrete			
	Steel bar reinforcement: 0.5 tons			
	No	2		
	<b><u>SMOKE VENTILATION</u></b>			
34	RVI Orion B15 louvred roof ventilators			
	Compliance with EN12101-2: 2003			
	92C Overriding Fusible Link			
	24V-DC Fail Safe Motor			
	Panel Size: 2050 High x 1600 Wide x 600 Deep			
	Power: 230V @ 50Hz, 1 Phase @ 40Amps			
	Single Zone IP55 B Spec Control Panel			
	Rain Sensors with 25m of cable per unit.			
	No	20		
35	RVI up Blast Extraction Fans			
	Flowrate: 52L/s			
	Pressure: -320Pa			
	Compliance with EN12101-2: 2003			
	24V-DC Fail Safe Motor			
	Power: 400V @ 50Hz, 3 Phase @ 20Amps			
	Single Zone IP6 Control Panel			
	No	2		
36	RVI Smoke Extraction Fans			
	Flowrate: 210000L/s			
	Pressure: -320Pa			
	Compliance with EN12101-2: 2003			
	24V-DC Fail Safe Motor			
	Power: 400V @ 50Hz, 3 Phase @ 20Amps			
	Single Zone IP6 Control Panel			
	No	4		
	Carried to Collection			
				R

Section No. 5  
 Bill No. 3  
 Fire Systems

Amount

**BILL NO. 3**

**FIRE SYSTEMS**

**COLLECTION**

Page No

Brought Forward from Page

259

260

261

262

263

264

Carried To Section Summary

R

Section No. 5  
Bill No. 3  
Fire Systems



LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
Oven Burner: 28400Btu/Hr Weight: 204Kg	Rate only	1		
<b>Combie Steamer/Cooker</b>				
4 LAINOX Combie Oven (Cooker/Steamer) Capacity: 10 Pan for 300 meals DimensionsS : 875 x 825 x 820mm(H) Power Consumption : 15.5 KW (Electric)	Rate only	2		
5 Pan Inserts	Rate only	20		
6 Perforated Inserts	Rate only	20		
7 Wire Inserts	Rate only	20		
8 Stand with Storage	Rate only	2		
9 Cleaning Agent	Rate only	50		
10 Grilled Frytop (Half Ribbed/Half Smooth) Smooth & Half Ribbed frytop to right hand end only Galvanised Shelf under Dimensions :915x735x910mm 128kg Power LP-Gas	Rate only	1		
11 <b>Two Pan Deep Fryer</b> Fryer complete with oil receiver. Dimensions : 508x600x1040mm 48kg				
Carried to Collection				R
Section No. 5 Bill No. 4 Kitchen Equipment				

	Unit	Quantity	Rate	Amount
Power LP-Gas	Rate only	1		
12 Fryer Baskets	Rate only	6		
13 Conical Filter Holder	Rate only	4		
14 Conical Paper Filter	Rate only	4		
<b><u>POTS AND DISHWASH STATION</u></b>				
15 Double Bowel Pots Wash Sink with Spashback 304 Stainless Steel Dimensions: 1850x650x900	Rate only	2		
16 Wall Mounted Stainless Steel Pots Rack	Rate only	2		
<b>Dishwashing Station</b>				
17 Hood Type Dishwashing Machine Output: 40 Racks per Hour Dimensions: 624x740x1460mm (H) Multipower 230V ~ 50Hz 2.2KW	Rate only	1		
18 Dishwasher outlet Table Dimensions: 1150 x 620 x 900mm (H)	Rate only	1		
19 Bridging Sink with Splash Back (Right hand entry) Dimensions: 1000x620mm (H)				
Carried to Collection			R	
Section No. 5 Bill No. 4 Kitchen Equipment				

	Unit	Quantity	Rate	Amount
Bowl size : 500 x 450 x 250mm(D)	Rate only	1		
20 Dump Table with scrap hole				
Shelf Basket				
Dimensions: 1000x620mm (H)	Rate only	1		
<b>PREPARATION AREA</b>				
21 240kg/hr Potato Peeler				
Dimensions: 780 x 420 x 1450mm				
Power: 0.55Kw				
High Grade Stainless Steel Drum	Rate only	1		
<b>Preparation Area Sink</b>				
22 Double Bowl Pots Wash Sink with Spashback 304 Stainless Steel				
Dimensions: 1350x650x900mm(H)				
Bowl Dimensions: 505x505x250mm(H)	Rate only	1		
23 Tubular Undershelf 1300	Rate only	1		
24 15Lt Zip Hydroboil				
Power Supply: 2,4kw 230v 1ph				
Dimensions : 370x290x630mm(H)	Rate only	1		
<b>Preparation Area Table</b>				
25 Preparation Table with Splashback				
304 Stainless Steel				
Carried to Collection				
Section No. 5				
Bill No. 4				
Kitchen Equipment				





	Unit	Quantity	Rate	Amount
1 x POS Point Of Sale Software				
1 x Scan 2000 Barcode Scanner				
1 x Drawer 8 Coin 4 Note				
1 x Print 58mm Thermal Point Of Sale Printer				
1 x Bank Linked Card Reader (to be selected by client)	Rate only	1		
<b>33 Underbar Fridge</b>				
304 Brushed Stainless Steel with 2 Doors				
Dimensions: 1180x750x900mm(H)				
Operating Temp: +2 to +6° C				
Power Supply: 240V @ 10Amps	Rate only	1		
<b>Bain Marie Server</b>				
<b>34 Bain Marie with Hot Cupboard</b>				
304 Stainless Steel with 5 Division				
Dimensions: 1785 x 750 x 915mm high @ 252kg				
Electrics : 5,5KW, 380V, 2N	Rate only	1		
<b>35 Full Sneeze Riser Guard Shelf</b>	Rate only	1		
<b>36 Full Insert @ 150mm Deep Insert with Lid Cover</b>	Rate only	9		
<b>37 One Half Insert @ 150mm Deep Insert with Lid Cover</b>	Rate only	6		
<b>38 One Third Insert @ 150mm Deep Insert with Lid Cover</b>	Rate only	9		
<b><u>COFFEE BAR</u></b>				
<b>39 Micros (Oracle®) Point Of Sale System Terminal Connected to IPPBX System Complete with:</b>				
Carried to Collection				
Section No. 5				
Bill No. 4				
Kitchen Equipment				

R

	Unit	Quantity	Rate	Amount
1 x Terminal with Touchscreen – Customer and Operator Side 1 x POS Point Of Sale Software 1 x Scan 2000 Barcode Scanner 1 x Drawer 8 Coin 4 Note 1 x Print 58mm Thermal Point Of Sale Printer 1 x Bank Linked Card Reader (to be selected by client)	Rate only	1		
40 Underbar Fridge 304 Brushed Stainless Steel with 3 Doors Dimensions: 1780x750x900mm(H) Operating Temp: +2 to +6° C Power Supply: 240V @ 10Amps	Rate only	1		
41 Heated Salvador Display Unit Capacity: 500lt with 3 Shelves Dimensions: 1500 x 680 x 1200mm @ 300kg	Rate only	1		
42 Coffee Grinder/Doser–Super Jolly Capacity: 12.kg Coffee Bean Container Capacity: 280g Ground Coffee Container Grinding Speed: 1400 rpm @ 50Hz	Rate only	1		
<b>Espresso Semi-Automatic Coffee Machine</b>				
43 Espresso Semi–Automatic Coffee Grinder/Doser–Super Jolly Capacity: 12.kg Coffee Bean Container Capacity: 280g Ground Coffee Container Grinding Speed: 1400 rpm @ 50Hz	Rate only	1		
44 Espresso Machine Cleaning Kit	Rate only	5		
				R

Carried to Collection

Section No. 5  
Bill No. 4  
Kitchen Equipment

	Unit	Quantity	Rate	Amount
45 Espresso Machine Knock Box	Rate only	2		
46 Coffee Tamper	Rate only	2		
47 Ø385mm Mixing Bowl 304 Stainless Steel	Rate only	1		
<b><u>HAND WASH STATION</u></b>				
48 304 Stainless Steel Hand Wash Station Complete with: 1 x Knee Operated Sink (400x330x230mm(H)) 1 x 500mL Soap Dispenser 1 x Paper Towel Dispenser	Rate only	2		
<b><u>STORAGE AND REFRIGERATION.</u></b>				
49 Vented 304 Stainless Steel Shelving @ 1070x460x1830mm (H)	Rate only	2		
50 Vented 304 Stainless Steel Shelving @ 1220x460x1830mm (H)	Rate only	1		
51 Vented 304 Stainless Steel Shelving Kit Add-on @ 460x1830mm (H)	Rate only	1		
52 304 Stainless Steel Upright Freezer with Full Solid Doors Capacity: 980Lt with 8 Shelves Power Supply: 600W, 220-240V @ 5 Amps Dimensions: 1200x760x1950mm(H)	Rate only	1		
53 304 Stainless Steel Upright Chiller with Full Solid Doors Capacity: 980Lt with 8 Shelves				
Carried to Collection				R
Section No. 5 Bill No. 4 Kitchen Equipment				

	Unit	Quantity	Rate	Amount
Power Supply: 300W, 220–240V @ 5 Amps Dimensions: 1200x760x1950mm(H)	Rate only	2		
<b><u>SUNDRIES, TESTING, COMMISSIONING AND SYSTEM MAINTENANCE</u></b>				
54 Programming of the Works	Rate only	1		
55 Testing and Commission by Original Equipment Manufacturer (OEM)	Rate only	4		
56 36 Month Warranty from Original Equipment Manufacturer (OEM)	Rate only	1		
57 06 Month Post Commissioning Maintenance, including all equipment and sundries	Rate only	1		
58 12 Month Post Commissioning Maintenance, including all equipment and sundries	Rate only	1		
59 Equipment Labelling, Manuals and Training Materials	Rate only	4		
60 As-Built Drawings in Electronic Native Format (Revit 2023, AutoCAD 2023 and PDF)	Rate only	2		
61 As-Built Drawings on A1 Colour Print	Rate only	2		
Carried to Collection			R	
Section No. 5				
Bill No. 4				
Kitchen Equipment				

**BILL NO. 4**

**KITCHEN EQUIPMENT**

**COLLECTION**

Amount

Page No

Brought Forward from Page

266

267

268

269

270

271

272

273

274

Carried To Section Summary

R

Section No. 5  
Bill No. 4  
Kitchen Equipment

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 5</b>				
<b>MECHANICAL INSTALLATION</b>				
<b>BILL NO. 5</b>				
<b>ELEVATORS</b>				
<b>ELEVATORS</b>				
Manufacture (where required), supply, delivery, installation, commissioning and testing of all systems stated below. Rates to be inclusive any and all associated costs				
<b>Elevator Details</b>				
1				
Type of Elevator: Gearless MRL				
Capacity 1000kg / 13 Persons				
Rated Speed 1000 mm/s				
Travel 21000mm				
Stops/Doors/Floors 7/7/7				
Openings In Line				
Basic station Ground				
	No	2		
Floor marks: Basement, Ground, 1st, 2nd, 3rd, 4th, 5th Floors				
<b>Shaft Details</b>				
2				
Shaft dimensions (per Elevator): 2350(w) mm x 1900(d) mm				
Headroom 4000mm				
Pit 1600mm				
Shaft material Concrete				
	No	2		
Shaft lighting and electrical included				
<b>Internal Car Finishes</b>				
3				
Dimensions ID 1800 (w) mm x 2100 (d) mm x 2250 mm (h)				
Front Panel Finish – Front Wall Hairline stainless steel				
Rear Panel Finish – Rear Wall Hairline stainless steel				
Side A Panel Finish – Side Wall A Hairline stainless steel				
Side B Panel Finish – Side Wall B Hairline stainless steel				
Ceiling From standard range				
Flooring Black studded rubber				
Handrail Round stainless steel on 3 sides				
				R
Carried to Collection				
Section No. 5				
Bill No. 5				
Elevators				

	Unit	Quantity	Rate	Amount
Skirting None				
Mirror ½ on rear				
Canvas Blanket Required	No	2		
<b>Car Internal Control Panel and Signalization</b>				
4 COP Type Left front standing inside car facing out				
Content Call buttons, alarm, door open, door close, emergency light, overload indicator, floor indicator				
COP Finish Hairline stainless steel				
Display Type LCD				
Display Content Numeric floor indicator, directional arrows				
Display Colour Blue background and white text				
Button Type Round				
Button Backlight Colour Blue				
Button with Braille With				
Disabled COP Without				
Voice Annunciator With				
Arrival Gong on Car With	No	2		
<b>Landing Control Panel and Signalization</b>				
5 LOP Type Surface mounted between Elevators				
LOP Direction Signal Above Each Elevator				
LOP Finish Hairline stainless steel				
Display Type LCD				
Display Content Numeric floor indicator, directional arrows				
Display Colour Blue background and white text				
Button Type Round				
Button Backlight Colour Blue				
Button with Braille With				
Arrival Gong on Landing Without	No	14		
<b>Internal Car Door Details</b>				
6 Door Opening Size 1100 (w) mm x 2100 (h) mm				
Door Type 2 panel centre opening				
Door Finish Hairline stainless steel				
			R	
Carried to Collection				
Section No. 5				
Bill No. 5				
Elevators				





LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
14	No	2		
15	Sets	4		
16	No	2		
17	No	2		
Carried to Collection				
			R	

Section No. 5  
 Bill No. 5  
 Elevators

Amount

**BILL NO. 5**  
**ELEVATORS**  
**COLLECTION**

Page No

Brought Forward from Page

276

277

278

279

Carried To Section Summary

R

Section No. 5  
Bill No. 5  
Elevators

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 5</b>				
<b>MECHANICAL INSTALLATION</b>				
<b>BILL NO. 6</b>				
<b>WET SERVICES</b>				
<b>WATER SUPPLY</b>				
Manufacture (where required), supply, delivery, installation, commissioning and testing of all systems stated below. Rates to be inclusive any and all associated costs.				
<b>SITE WATER RETICULATION</b>				
<b>HDPE PN 16 pipes and fittings to SANS 966 Part 1: 2019 suitable for below-ground applications for the conveyance of potable water in reticulation systems in which continuous temperatures in excess of 25°C are not encountered</b>				
1	m	688		
Ø110mm High pressure pipe laid in ground not exceeding 1000mm deep				
2	No	4		
Ø110mm Gate Valve Installed in Valve Chamber not exceeding 1000mm below ground level Pam CI Box with None-Remove Side Lid 300 x 400mm (C250 Hydrex)				
3	m	126		
Ø90mm High pressure pipe laid in ground not exceeding 1000mm deep				
4	No	4		
Ø90mm Gate Valve Installed in Valve Chamber not exceeding 1000mm below ground level Pam CI Box with None-Remove Side Lid 300 x 400mm (C250 Hydrex)				
<b>BUILDING WATER RETICULATION</b>				
5	m	152		
Ø32mm Diameter Galvanised Steel Waster Supply Piping				
6	m	120		
Ø50mm Diameter Galvanised Steel Waster Supply Piping				
7	No	106		
Ø32mm Diameter Galvanised Steel Waster Supply Piping Fittings				
Carried to Collection				R
Section No. 5				
Bill No. 6				
Wet Services				

	Unit	Quantity	Rate	Amount
8	Ø80mm Diameter Galvanised Steel Waster Supply Piping Fittings	No	84	
9	Ø25mm Diameter Galvanised Steel Waster Supply Piping	m	152	
10	Ø25mm Ball Valve	No	8	
11	Ø25mm Strainer	No	8	
12	Ø25mm Non- Return Valve	No	8	
13	Ø25mm Pressure Regulator	No	8	
14	Ø20mm Braided Flexibe Hose with Ball Valve	No	68	
15	Ø25mm Class 2 Copper Piping	m	189	
16	Ø20mm Class 2 Copper Piping	m	480	
17	Ø15mm Class 2 Copper Piping	m	320	
18	Ø25mm Class 2 Copper Piping Capilary Fittings	No	170	
19	Ø20mm Class 2 Copper Piping Capilary Fittings	No	432	
20	Ø15mm Class 2 Copper Piping Capilary Fittings	No	288	
<b><u>BUILDING WATER DRAINAGE</u></b>				
21	Ø32mm µPVC Piping (Class 34)	m	180	
22	Ø50mm µPVC Piping (Class 34)	m	280	
23	Ø110mm µPVC Piping (Class 34)	m	460	
24	Ø32mm µPVC Piping (Class 34) Fittings	No	216	
25	Ø50mm µPVC Piping (Class 34) Fittings	No	336	
26	Ø110mm µPVC Piping (Class 34) Fittings	No	276	
<b><u>GREASE TRAP</u></b>				
27	304 Stainless Steel			
	Flow Rate: 7l/s			
	Size: 2332 x 1002 x 1100 mm			
	1 Basket	No	1	
<b><u>WATER HEATERS</u></b>				
28	Solar Water heater System 250L (Indirect)			
Carried to Collection				R
Section No. 5				
Bill No. 6				
Wet Services				



Amount

**BILL NO. 6**  
**WET SERVICES**  
**COLLECTION**

Page No

Brought Forward from Page

281

282

283

Carried To Section Summary

R

Section No. 5  
Bill No. 6  
Wet Services

Amount

**SECTION NO. 5**

**MECHANICAL INSTALLATION**

**SECTION SUMMARY**

Bill No.

Page

1	PRELIMINARIES	236
2	HEATING, VENTILATION AND AIR-CONDITIONING	258
3	FIRE SYSTEMS	265
4	KITCHEN EQUIPMENT	275
5	ELEVATORS	280
6	WET SERVICES	284

Carried to Final Summary

R

Section No. 5  
SECTION SUMMARY

**SECTION NO. 6**  
**PROVISIONAL SUMS**



	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 6</u></b>				
<b><u>PROVISIONAL SUMS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>PROVISIONAL SUMS</u></b>				
<b><u>PREAMBLES</u></b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill				
<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
<b>General</b>				
Where stated, the contractor may allow for profit if required				
<b><u>PROVISIONAL SUMS FOR NOMINATED/SELECTED SUBCONTRACT WORKS</u></b>				
<b>Specialist joinery work:</b>				
1				
	Item			1 000 000 00
2	Item			
3	Item			
<b>Special ceilings:</b>				
4	Item			425 000 00
5	Item			
6	Item			
<b>Signage</b>				
7	Item			760 000 00
8	Item			
9	Item			
<b>Wallpaper hanging</b>				
10	Item			125 000 00
			R	
Carried to Collection				
Section No. 6				
Bill No. 1				
Provisional Sums				

LIMPOPO PROVINCIAL THEATRE

	Unit	Quantity	Rate	Amount
11	Add for profit	Item		
12	Add for attendance in all trades	Item		
<b>External facades:</b>				
13	Provide the sum of R7 500 000,00 (Seven Million and Five Hundred Thousand Rand) for architectural treatment of external facades	Item		7 500 000 00
14	Add for profit	Item		
15	Add for attendance in all trades	Item		
<b>Enterprise Development</b>				
16	Provide the sum of R300 000,00 (Three Hundred Thousand Rand ) for enterprise development	Item		300 000 00
17	Add for profit	Item		
18	Add for attendance in all trades	Item		
<b>Life Orientation Skills</b>				
19	Provide the sum of R200 000,00 (Two Hundred Thousand Rand) for life orientation skills development	Item		200 000 00
20	Add for profit	Item		
21	Add for attendance	Item		
<b>Technical Skills</b>				
22	Provide the sum of R300 000,00 (Three Hundred Thousand Rand) for technical skills development	Item		300 000 00
23	Add for profit	Item		
24	Add for attendance	Item		
<b>Reimbursement of Labourers During Training</b>				
25	Provide the sum of R100 000,00 (One Hundred Thousand Rand) for reimbursement of labourers during training	Item		100 000 00
26	Add for profit	Item		
27	Add for attendance	Item		
			<b>R</b>	
Carried to Collection				

Section No. 6  
 Bill No. 1  
 Provisional Sums

	Unit	Quantity	Rate	Amount
<b>Accommodation and Transport</b>				
28	Item			50 000 00
Provide the sum of R50 000.00 (Fifty Thousand Rand) for accommodation and transport of workers during training				
29	Item			
Add for attendance				
30	Item			
Add for profit				
<b><u>BUDGETARY ALLOWANCES</u></b>				
<b>Ironmongery</b>				
31	Item			1 000 000 00
Provide the sum of R1000 000,00 (One Million Rand) for Ironmongery				
<b>Gate house</b>				
32	Item			540 000 00
Provide the sum of R540 000,00 (Five Hundred and Forty Thousand Rand) for construction of gate house and boom gates				
<b>Scenery Lifting Machinery:</b>				
33	Item			500 000 00
Provide the sum of R500 000,00 (Five Hundred Thousand Rand) for fabrication and installation of scenery lifting machinery				
<b>Community Liasion Officer</b>				
34	Item			252 000 00
Provide the sum of R252 000.00 (Two Hundred and Fifty Two Thousand Rand) for appointmnet of CLO for thirty six months				
<b>Health and Safety Provisions:</b>				
35	Item			500 000 00
Provide the sum of R500 000.00 (Five Hundred Thousand Rand) for Health and Safety provisions				
Carried to Collection				R

Section No. 6  
 Bill No. 1  
 Provisional Sums

Amount

**BILL NO. 1**

**PROVISIONAL SUMS**

**COLLECTION**

Brought Forward from Page

Page No

287

288

289

Carried To Section Summary

R

Section No. 6  
Bill No. 1  
Provisional Sums

	Unit	Quantity	Rate	Amount
<b>SECTION NO. 6</b>				
<b>PROVISIONAL SUMS</b>				
<b>BILL NO. 2</b>				
<b>BUILDERS WORK I.C.W. SPECIALIST SUBCONTRACTORS</b>				
<b>PREAMBLES</b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill				
<b>BUILDER'S WORK IN CONNECTION WITH SPECIALIST INSTALLATIONS</b>				
<b>Forming holes and openings:</b>				
1	No	80		
2	No	50		
3	No	30		
4	No	30		
5	No	30		
6	No	20		
7	No	10		
8	No	5		
9	No	4		
10	No	2		
11	No	2		
12	No	2		
<b>Sleeves:</b>				
13	No	20		
14	No	10		
Carried to Collection			R	
Section No. 6				
Bill No. 2				
Builders Work I.c.w. Specialist Subcontractors				

	Unit	Quantity	Rate	Amount
15				
15	1mm Thick galvanised mild steel sleeve for hole not exceeding 1m in diameter through one brick wall	No	5	
16	1mm Thick galvanised mild steel sleeve for hole not exceeding 1m in diameter through 320mm brick wall	No	5	
<b><u>MATS</u></b>				
<b>Entrance mats:</b>				
17	Provide the sum of R220 000.00 (Two Hundred and Twenty Thousand Rand) for entrance mats and surrounds	Item		
Carried to Collection			R	

Section No. 6  
 Bill No. 2  
 Builders Work l.c.w. Specialist Subcontractors

Amount

**BILL NO. 2**

**BUILDERS WORK I.C.W. SPECIALIST SUBCONTRACTORS**

**COLLECTION**

Page No

Brought Forward from Page

291

292

Carried To Section Summary

R

Section No. 6

Bill No. 2

Builders Work I.c.w. Specialist Subcontractors

Amount

**SECTION NO. 6**

**PROVISIONAL SUMS**

**SECTION SUMMARY**

Bill No.

Page

- 1 PROVISIONAL SUMS
- 2 BUILDERS WORK I.C.W. SPECIALIST SUBCONTRACTORS

290

293

Carried to Final Summary

R

Section No. 6  
SECTION SUMMARY



**SECTION NO. 7**  
**CONTRACT PRICE ADJUSTMENT PROVISIONS**

Unit    Quantity    Rate    Amount

**SECTION NO. 7**

**CONTRACT PRICE ADJUSTMENT PROVISIONS**

**BILL NO. 1**

**CPAP PROVISION**

**CONTRACT PRICE ADJUSTMENT PROVISIONS**

**Contract Price Adjustment Provisions**

- 1 Provide the sum of R18 334 000.00 (Eighteen Million, Three Hundred and Thirty Four Thousand Rand) for CPAP to be calculated and paid in accordance with the Haylett formula in accordance with Clause 31 of the JBCC contract document

Item    18 334 000 00

Carried to Final Summary

R

Section No. 7  
 Bill No. 1  
 Cpap Provision

Section No. **FINAL SUMMARY**

Page	Amount
29	
141	
172	
231	
285	
294	
296	
	7 500 000 00
	R

- 1 PRELIMINARIES
- 2 BUILDINGS
- 3 EXTERNAL WORKS
- 4 ELECTRICAL INSTALLATION
- 5 MECHANICAL INSTALLATION
- 6 PROVISIONAL SUMS
- 7 CONTRACT PRICE ADJUSTMENT PROVISIONS

ADD: CONTINGENCIES

Allow the Amount of R7 500 000.00 (Seven Million Five Hundred Thousand Rands) for contingencies, to be used by the Principal Agent in terms of Clause 17 of the Principal Building Agreement.

SubTotal excluding Value Added Tax

ADD VAT @ 15% 15%:

Carried to Tender

FINAL SUMMARY