

**PROVISIONAL BILLS OF QUANTITIES**  
**FOR**  
**MINOR WORK PROJECTS**  
**FOR**  
**EAST LONDON INDUSTRIAL DEVELOPMENT ZONE**

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

## **SECTION NO. 1**

### **PRELIMINARIES**

#### **BUILDING AGREEMENT AND PRELIMINARIES**

The **JBCC** Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described

The **JBCC** Principal Building Agreement **contract data** form an integral part of this **agreement**

The **JBCC** General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the **JBCC** Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these **bills of quantities**, amended as hereinafter described

The **contractor** is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause

The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only

Where any item is not relevant to this **agreement** such item is marked N/A signifying 'not applicable'

Where standard clauses or alternatives are not entirely applicable to this **agreement** such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents

#### **PREAMBLES FOR TRADES**

The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these **bills of quantities** and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained

Supplementary preambles and/or specifications are incorporated in these **bills of quantities** to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles

The **contractor's** prices for all items throughout these **bills of quantities** shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications

#### **STRUCTURE OF THIS PRELIMINARIES BILL**

Section A:

A recital of the headings of the individual clauses in the aforementioned **JBCC** Principal Building Agreement

Section B:

Carried To Section Summary

R

Section No. 1

Bill No. 1

Preliminaries

A recital of the headings of the individual clauses in the aforementioned  
**JBCC General Preliminaries**

Section C:

Any special clauses to meet the particular circumstances of the project

### **PRICING OF PRELIMINARIES**

Should the **contractor** select Option A in the **contract data** for the adjustment of **preliminaries**, the amounts entered against the relevant items in these **preliminaries** are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

### **SECTION A: PRINCIPAL BUILDING AGREEMENT**

#### **Interpretation (A1-A7)**

#### 1 Clause 1.0 - Definitions and interpretation

#### **Bills of quantities**

The Bill of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work as amended published and issued by the Association of South African Quantity Surveyors - Seventh Edition, 2015

#### **Pricing of bills of quantities**

The **contractor** is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this **agreement**. Value Added Tax (VAT) is to be separately stated on the summary page of these **bills of quantities**

Items left unpriced will be deemed to be covered in prices against other items throughout these **bills of quantities** and no claim for any extras arising out of the **contractor's** omission to price any item will be entertained

Prices for all **construction equipment**, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary

#### **Abbreviated descriptions**

The items in these **bills of quantities** utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the **contractor** shall, before submission of his tender, call for a written directive from the **principal agent**, failing which it shall be assumed that the **contractor** has allowed in his pricing for materials and workmanship in terms of international best practice

#### **Legal status of contractor**

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		Amount
1	If the <b>contractor</b> constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:	
	1. These persons are deemed to be jointly and severally liable to the <b>employer</b> for the performance of this <b>agreement</b>	
2	2. These persons shall notify the <b>employer</b> of their leader who has assigned authority to bind the <b>contractor</b> and each of these persons	
	3. The <b>contractor</b> shall not alter its composition or legal status without the prior written consent of the <b>employer</b>	Item
2	Clause 2.0 - <b>Law</b> , regulations and <b>notices</b>	
	<b>Law</b> applicable to the <b>works</b> : Republic of South Africa	Item
3	Clause 3.0 - Offer and acceptance	
	Currency applicable to this <b>agreement</b> : ZAR	Item
4	Clause 4.0 - Cession and assignment	Item
5	Clause 5.0 - Documents	
	The original signed agreement is to be held by the ELIDZ	
	The number of copies of construction information to be issued to the contractor at no cost: 3	
	Documents comprising the agreement:	
	The JBCC® Principal Building Agreement, Edition 6.2 May 2018	
	The JBCC® General Preliminaries for use with the JBCC® Principal Building Agreement, Edition 6.2 May 2018	
	Contract drawings	
	Bills of Quantities (balanced)	Item
6	Clause 6.0 - <b>Employer's agents</b>	
	The authority of the <b>principal agent</b> to issue contract instructions [17.1] and perform duties for specific aspects of <b>the works</b> is delegated to agents as follows [6.2]	
	Principal Agent and delegated authority	
	Principal agent's and agents interest of involvement in the works other than a professional interest	
	N/A	Item
7	Clause 7.0 - Design responsibility	Item
	<b><u>Insurances and securities (A8-A11)</u></b>	
8	Clause 8.0 - <b>Works</b> risk	Item
9	Clause 9.0 - Indemnities	Item
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		Amount
10	Clause 10.0 - Insurances	Item
11	Clause 11.0 - <b>Securities</b>	
	Waiver of lien	
	It is expected of the <b>contractor</b> to waive his lien in terms of clause 11.10	
	Extension of waiver of lien	
	The contractor shall ensure that a waiver of lien is included in all subcontracts and that the <b>works</b> executed on the <b>site</b> are kept free of all liens and other encumbrances at all times [11.10]	Item
	<b><u>Execution (A12 - A17) }</u></b>	
12	Clause 12.0 - Obligations of the parties	
	Notice board	
	The <b>contractor</b> shall erect in a position approved by the <b>principal agent</b> , maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the <b>employer</b> , the contractor and the professional consultants. No <b>subcontractor</b> or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]	
	Statutory and other notices	
	The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of <b>the works</b> by the contractor. The contractor shall pay all deposits or fees in this regard.	
	It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto	Item
13	Clause 13.0 - Setting out	Item
14	Clause 14.0 - Nominated <b>subcontractors</b>	Item
15	Clause 15.0 - Selected <b>subcontractors</b>	
	As listed in the <b>Contract Data</b>	Item
16	Clause 16.0 - Direct contractors	
	<b>Attendance on direct contractors</b>	
	In respect of direct contractors the <b>contractor</b> shall:	
	1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials	
	2. Allow the user of personnel welfare facilities, where provided	
	3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation	
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		Amount
	4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the <b>contractor</b> , in common with others having the like right, while it remains erected on the <b>site</b> [16.1]	Item
17	Clause 17.0 - Contract instructions	
	<b>Site instructions</b>	
	Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the <b>contractor</b>	Item
	<b><u>Completion (A18 - A24) }</u></b>	
18	Clause 18.0 - Interim completion	Item
19	Clause 19.0 - Practical completion	Item
20	Clause 20.0 - Completion in sections	Item
21	Clause 21.0 - <b>Defects</b> liability period and final completion	Item
22	Clause 22.0 - <b>Latent defects</b> liability period	Item
23	Clause 23.0 - Revision of the date for <b>practical completion</b>	
	<b>Substitution of materials and goods</b>	
	The removal or substitution of any <b>materials and goods</b> which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the <b>contract value</b> [17.1.8; 23.1 & 2]	Item
24	Clause 24.0 - <b>Penalty</b> for late or non-completion	Item
	<b><u>Payment (A25 - A27) }</u></b>	
25	Clause 25.0 - Payment	
	<b>Prices submitted</b>	
	Where prices are submitted by the <b>contractor</b> or <b>subcontractor</b> during the progress of <b>the works</b> in respect of contract instructions or in regard to a claim under the terms of this <b>agreement</b> and notwithstanding the fact that such prices may be used in an interim <b>payment certificate</b> , there is to be no presumption of acceptance. Should the <b>principal agent</b> wish to accept any such prices prior to the issue of the <b>certificate of final completion</b> , it shall be in writing	
	<b>Fluctuations in costs</b>	
	All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor	Item
26	Clause 26.0 - Adjustment of the contract value and final account	
	Fluctuations in costs	
	All fluctuations in costs, with the exception of fluctuations in the rate of Value	
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	Added Tax, shall be for the account of the contractor [26.9.5]		
	Cost of claims		
	All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this agreement [30.6 & 7] from making a determination on costs		
	Claims from subcontractors		
	The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]	Item	
27	Clause 27.0 - Recovery of expense and/or loss	Item	
	<b><u>Suspension and termination (A28 - A29)</u></b>		
28	Clause 28.0 - Suspension by the <b>contractor</b>	Item	
29	Clause 29.0 - Termination	Item	
	<b><u>Dispute resolution (A30)</u></b>		
30	Clause 30.0 - Dispute resolution		
	<b>Agreement</b>		
	The required information of the <b>parties</b> and the amount of the <b>contract sum</b> shall be inserted in the <b>agreement</b> for signature of the <b>agreement</b> by the <b>parties</b>		
	<b>Tenderer's selection</b>		
	Before submission of his tender the <b>contractor</b> is to complete the tenderer's selections in the <b>contract data</b>	Item	
	<b><u>SECTION B: GENERAL PRELIMINARIES</u></b>		
	Amendments, modifications, corrections or supplements to the General Preliminaries in Section B are recorded in the contract data		
	<b><u>Definitions and interpretation (B1)</u></b>		
31	Clause 1.1 - Definitions	Item	
32	Clause 1.2 - Interpretation	Item	
	<b><u>Documents (B2)</u></b>		
33	Clause 2.1 - Checking of documents	Item	
34	Clause 2.2 - Provisional <b>bills of quantities</b>	Item	
35	Clause 2.3 - Availability of <b>construction information</b>	Item	
36	Clause 2.4 - Ordering of <b>materials and goods</b>	Item	
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<b><u>Previous work and adjoining properties (B3)</u></b>			
37	Clause 3.1 - Previous work - dimensional accuracy	Item	
38	Clause 3.2 - Previous work - <b>defects</b>	Item	
39	Clause 3.3 - Inspection of adjoining properties	Item	
<b><u>The site (B4)</u></b>			
40	Clause 4.1 - Handover of <b>site</b> in stages	Item	
41	Clause 4.2 - Enclosure of <b>the works</b>	Item	
42	Clause 4.3 - Geotechnical and other investigations	Item	
43	Clause 4.4 - Encroachments	Item	
44	Clause 4.5 - Existing premises occupied	Item	
45	Clause 4.6 - Services - known	Item	
<b><u>Management of contract (B5)</u></b>			
46	Clause 5.1 - Management of <b>the works</b>	Item	
47	Clause 5.2 - Progress meetings	Item	
48	Clause 5.3 - Technical meetings	Item	
<b><u>Samples, shop drawings and manufacturer's instructions (B6)</u></b>			
49	Clause 6.1 - Samples of materials	Item	
50	Clause 6.2 - Workmanship samples	Item	
51	Clause 6.3 - Shop drawings	Item	
52	Clause 6.4 - Compliance with manufacturer's instructions	Item	
<b><u>Deposits and fees (B7)</u></b>			
53	Clause 7.1 - Deposits and fees	Item	
<b><u>Temporary services (B8)</u></b>			
54	Clause 8.1 - Water	Item	
55	Clause 8.2 - Electricity	Item	
56	Clause 8.3 - Ablution and welfare facilities	Item	
57	Clause 8.4 - Communication facilities	Item	
<b><u>Prime cost amounts (B9)</u></b>			
58	Clause 9.1 - Responsibility for <b>prime cost amounts</b>	Item	
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	<b><u>Attendance on subcontractors (B10)</u></b>		
59	Clause 10.1 - General attendance	Item	
60	Clause 10.2 - Special attendance	Item	
	<b><u>General (B11)</u></b>		
61	Clause 11.1 - Protection of <b>the works</b>	Item	
62	Clause 11.2 - Protection/isolation of existing <b>works</b> and <b>works</b> occupied in sections	Item	
63	Clause 11.3 - Security of <b>the works</b>	Item	
64	Clause 11.4 - Notice before covering work	Item	
65	Clause 11.5 - Disturbance	Item	
66	Clause 11.6 - Environmental disturbance		
	<b>Controlling all forms of pollution</b>		
	The <b>contractor</b> shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the <b>site</b> during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc.		
	The <b>contractor</b> is to ensure that all roads which border the site and are used by the contractor during the execution of <b>the works</b> are kept clean and free of any dirt or debris caused by the execution of the <b>works</b>		
	<b>Environmental management plan</b>		
	The <b>employer</b> has prepared an environmental management plan (EMP) (refer to C3.4 of Envelope A section 1 of 2 for a copy of the relevant plan). The contractor shall price opposite this item for compliance with all the requirements of such EMP	Item	
67	Clause 11.7 - <b>Works</b> cleaning and clearing	Item	
68	Clause 11.8 - Vermin	Item	
69	Clause 11.9 - Overhand work	Item	
70	Clause 11.10 - Tenant installations	Item	
71	Clause 11.11 - Advertising	Item	
	<b><u>SECTION C: SPECIFIC PRELIMINARIES</u></b>		
	<b><u>Specific Preliminaries</u></b>		
72	Warranties for materials and workmanship		
	Where warranties for materials and/or workmanship are called for, the <b>contractor</b> shall obtain a written warranty, addressed to the <b>employer</b> , from the entity supplying the materials and/or executing the work and shall deliver same to the <b>principal agent</b> on <b>final completion</b> of the contract		
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		Amount
	<p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of <b>practical completion</b> and that any <b>defects</b> that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written <b>notice</b></p> <p>The warranty will not be enforced if the work is damaged by <b>defects</b> in the execution of <b>the works</b>, in which case the responsibility for replacement shall rest entirely with the <b>contractor</b></p>	
73	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the <b>contractor</b> unless the <b>principal agent</b> has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the <b>employer</b></p>	Item
74	<p>Cooperation of the <b>contractor</b> for cost management</p> <p>It is specifically agreed that the <b>contractor</b> accepts the obligation of assisting the <b>principal agent</b> in implementing proper cost management. The <b>contractor</b> will be advised by the <b>principal agent</b> of all cost management procedures which will be implemented to ensure that the <b>contract value</b> does not exceed the budget</p>	Item
75	<p>Overloading</p> <p>The <b>contractor</b> shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of <b>the works</b> or temporary works eg scaffolding, etc. The <b>contractor</b> shall submit details of his proposed loading, storage, plant erection, etc to the <b>principal agent</b> for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the <b>principal agent's</b> requirements in connection with the provision of temporary support work, etc. Any damage caused to the <b>works</b> by overloading shall be made good by the <b>contractor</b> at his sole expense</p>	Item
76	<p>Propping of floors below</p> <p>The <b>contractor</b> is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of <b>materials and goods</b> and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the <b>principal agent</b> and the cost thereof shall be borne by the <b>contractor</b></p>	Item
77	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be flooded and kept 'ponded' for at least forty eight hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p>	Item
78	<p>Health and safety</p>	
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		Amount
79	Without limiting the generality of the provisions of clause 2.0, the <b>contractor's</b> attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the <b>employer</b> shall prepare a documented health and safety specification for <b>the works</b> (refer to Annexure ? for a copy of the relevant specification) and that the <b>employer</b> shall ensure that the <b>contractor</b> has made provision for the cost of health and safety measures during the execution of <b>the works</b> . The <b>contractor</b> shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]	Item
	The <b>contractor</b> shall	
	1. Comply with the health and safety specification for <b>the works</b>	
	2. Prepare and agree with the health and safety consultant the health and safety plan for <b>the works</b>	
	3. Cooperate with the health and safety consultant in all respects	
80	4. Manage the compliance of all <b>subcontractors</b> with the regulations and with the health and safety plan and specification	Item
	5. Conform to the conditions contained in the <b>employer's</b> health and safety specification	
80	Broad based black economic empowerment (BBBEE)	
	Tenders submitted will be evaluated taking into account their empowerment rating	
	The <b>employer</b> will be monitoring the broad based black economic empowerment (BBBEE) status of the <b>contractor</b> throughout the execution of <b>the works</b>	
81	The <b>contractor</b> is to submit to the <b>principal agent</b> on an annual basis a schedule of spend, split into vendors engaged as <b>subcontractors</b> and suppliers indicating their BBBEE rating including proof of the said rating	Item
	Advertising rights	
81	The may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The <b>contractor</b> shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the <b>principal agent</b> so as not to hinder the <b>contractor</b> in meeting his obligations under this agreement	Item
	Confidentiality	
82	The <b>contractor</b> undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all <b>subcontractors</b> and suppliers. Such information shall not be used in any way except in connection with the execution of <b>the works</b>	
	No information regarding this project shall be published or disclosed without the prior written consent of the <b>employer</b>	Item
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83 Media releases

All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the **employer**

The **contractor** together with his **subcontractors** shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media

**SUMMARY OF CATEGORIES**

Category : Fixed R.....

Category : Value R.....

Category : Time R.....

Item

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R

Section No. 1

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Preliminaries

**SECTION NO. 1**  
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**SECTION SUMMARY**

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**R**

Section No. 1  
SECTION SUMMARY

**SECTION NO. 2**  
**BUILDERS WORK**

**SECTION NO. 2**

**BUILDERS WORK**

**BILL NO. 1**

**ALTERATIONS**

**Key:**

A

B

I

**Location Description:**

Dispatch area

Enclosed canopy

Item Location (Auto)

The Tenderer is referred to the relevant Clause in the separate document Model Preambles for Trades (2008 Edition) as published by the Association of South African Quantity Surveyors and the Supplementary Preambles which are incorporated in these Bills of Quantities

**SUPPLEMENTARY PREAMBLES**

**Salvaged material**

All material obtained in the demolitions and alterations is to remain the property of the Employer and the Contractor shall not be entitled to retain same, unless by express instruction from the Principal Agent. Unwanted material and all rubble only to be taken to a suitable dumping site

**REMOVAL OF EXISTING WORK**

**Taking out/off and removing rainwater goods**

- 1 Cut and remove short length of bottom section of aluminium rainwater pipe, to facilitate extending the remaining length later

No 3

B 3

**CUTTING THROUGH FLOORS AND SLABS**

**Cutting through and removing**

- 2 Cutting through and removing mesh reinforced concrete surface bed not exceeding 200mm thick, for opening exceeding 2m<sup>2</sup> and not exceeding 4m<sup>2</sup> for column bases

No 4

A 4

**MAKING GOOD OF FINISHES, ETC**

**Making good 30MPa reinforced concrete**

- 3 In patching foundation penetrations through surface beds not exceeding 200mm thick, including finishing top surface smooth with a steel float

m<sup>2</sup> 15

A 15

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Section No. 2

Bill No. 1

Alterations



	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 2</u></b></p> <p><b><u>BUILDERS WORK</u></b></p> <p><b><u>BILL NO. 2</u></b></p> <p><b><u>EARTHWORKS</u></b></p> <p><b><u>Key:</u></b>                      <b><u>Location Description:</u></b></p> <p>A                              Dispatch area</p> <p>B                              Enclosed canopy</p> <p>I                                Item Location (Auto)</p> <p>The Tenderer is referred to the relevant Clause in the separate document Model Preambles for Trades (2008 Edition) as published by the Association of South African Quantity Surveyors and the Supplementary Preambles which are incorporated in these Bills of Quantities</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary items or materials</u></b></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect</p> <p><b><u>Project particular specifications</u></b></p> <p>The specifications particular to this project are included in C3.2 Particular Specifications: Construction Works included in Envelope A Volume 1 of 2 of the tender documents. The Contractor is to take cognisance of them when pricing the relevant items in the Bill of Quantities as no extras arising out of their failure to do so will be entertained</p> <p><b><u>Nature of ground</u></b></p> <p>A soils investigation has not been carried out on the site</p> <p><b><u>Carting away of excavated material</u></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><u>Filling</u></b></p> <p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material</p>				
Carried to Collection			R	
Section No. 2				
Bill No. 2				
Earthworks				

	Unit	Quantity	Rate	Amount
<b><u>Filling and layer work materials</u></b>				
References such as 'G1', 'G2', etc. and 'C1', 'C2', etc. in descriptions of filling and layer work materials refer to corresponding references in the document 'Guidelines for Road Construction Materials. TRH 14 : 1985' compiled by the Committee of State Road Authorities and the properties set out therein for each kind shall be applicable to the respective materials described hereinafter				
<b><u>EXCAVATION OTHER THAN BULK</u></b>				
<b><u>Excavation in earth not exceeding 2m deep</u></b>				
1 Holes	m <sup>3</sup>	25		
A 25				
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>				
2 Soft rock	m <sup>3</sup>	3		
A 3				
3 Hard rock	m <sup>3</sup>	1		
A 1				
<b><u>Extra over all excavations for loading, carting and dumping excavated material (no allowance made for increase in bulk)</u></b>				
4 Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m <sup>3</sup>	14		
A 14				
<b><u>Risk of collapse of excavations</u></b>				
5 Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	35		
A 35				
6 Sides of trench and hole excavations exceeding 1,5m deep	m <sup>2</sup>	16		
A 16				
<b><u>Keeping excavations free of water</u></b>				
7 Keeping excavations free of all water other than subterranean water	Item			
I 1				
<b><u>FILLING ETC OTHER THAN BULK</u></b>				
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density</u></b>				
8 Backfilling to trenches, holes, etc.	m <sup>3</sup>	10		
A 10				
Carried to Collection			R	
Section No. 2				
Bill No. 2				
Earthworks				

		Unit	Quantity	Rate	Amount
	<b><u>Earth filling using imported G7 material in backfilling to trenches, etc. and compacted in layers not exceeding 150mm thick to 95% Mod AASHTO density</u></b>				
9	Backfilling to trenches, holes, etc. A 2	m <sup>3</sup>	2		
	<b><u>Earth filling using imported G5 material in backfilling to trenches, etc. and compacted in layers not exceeding 150mm thick to 95% Mod AASHTO density</u></b>				
10	Backfilling to trenches, holes, etc. A 2	m <sup>3</sup>	2		
	<b><u>TESTS</u></b>				
	<b><u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u></b>				
11	Modified AASHTO Density test A 4	No	4		
Carried to Collection					R
Section No. 2					
Bill No. 2					
Earthworks					

ELIDZ Minor Works  
Amount

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

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**R**

Section No. 2  
Bill No. 2  
Earthworks

Unit    Quantity    Rate    Amount

**SECTION NO. 2**

**BUILDERS WORK**

**BILL NO. 3**

**CONCRETE, FORMWORK AND REINFORCEMENT**

<u>Key:</u>	<u>Location Description:</u>
A	Dispatch area
B	Enclosed canopy
I	Item Location (Auto)

The Tenderer is referred to the relevant Clause in the separate document Model Preambles for Trades (2008 Edition) as published by the Association of South African Quantity Surveyors and the Supplementary Preambles which are incorporated in these Bills of Quantities

**SUPPLEMENTARY PREAMBLES**

**Proprietary items or materials**

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**Project particular specifications**

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**Cost of tests**

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 for approval. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent (test cubes are measured separately)

Carried to Collection

R

Section No. 2

Bill No. 3

Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
<b><u>Formwork</u></b>				
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				
The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
Formwork to soffits of solid slabs etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described				
Formwork to soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in Earthworks				
<b><u>REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)</u></b>				
<b><u>UNREINFORCED CONCRETE CAST ON/IN FORMWORK</u></b>				
<b><u>20MPa/19mm concrete</u></b>				
1	Ramps, etc.	m <sup>3</sup>	1	
A	1			
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
<b><u>10MPa/19mm concrete</u></b>				
2	Surface blinding under footings and bases	m <sup>3</sup>	1	
A	1			
<b><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></b>				
<b><u>30MPa/19mm concrete</u></b>				
3	Columns in foundations (Provisional)	m <sup>3</sup>	2	
A	2			
Carried to Collection			R	
Section No. 2				
Bill No. 3				
Concrete, Formwork And Reinforcement				

		Unit	Quantity	Rate	Amount
4	Bund walls	m <sup>3</sup>	11		
	A 11				
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<b><u>30MPa/19mm concrete</u></b>				
5	Bases	m <sup>3</sup>	9		
	A 9				
	<b><u>TEST CUBES</u></b>				
	<b><u>Test cubes</u></b>				
6	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	4		
	A 4				
	<b><u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<b><u>Rough formwork to sides</u></b>				
7	Bases (Provisional)	m <sup>2</sup>	19		
	A 19				
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<b><u>Smooth formwork to sides</u></b>				
8	Rectangular columns in foundations (Provisional)	m <sup>2</sup>	12		
	A 12				
9	Bund walls	m <sup>2</sup>	96		
	A 96				
	<b><u>Boxing in smooth formwork to form</u></b>				
10	25 x 25mm Chamfers along top or bottom edges (provisional)	m	102		
	A 102				
	<b><u>REINFORCEMENT (PROVISIONAL)</u></b>				
	<b><u>Mild steel reinforcement to structural concrete work</u></b>				
11	Bars of various diameters	Tonnes	0.32		
	A 0.32				
	<b><u>High tensile steel reinforcement to structural concrete work</u></b>				
12	Bars of various diameters	Tonnes	3.35		
	A 3.35				
Carried to Collection					
Section No. 2					
Bill No. 3					
Concrete, Formwork And Reinforcement					

R

		Unit	Quantity	Rate	Amount
<b><u>Dowelling of steel reinforcement into concrete</u></b>					
13	Drill or core 30mm hole into top of reinforced concrete base for a depth of 200mm, remove all dust and water from hole by blowing out with high pressure air hose, and grout Y25 bar reinforcement into place using Hilti HIT-HY 150 Epoxy in strict accordance with product specifications	No	145		
A	145				
Carried to Collection					R
Section No. 2					
Bill No. 3					
Concrete, Formwork And Reinforcement					



**BILL NO. 3**  
**CONCRETE, FORMWORK AND REINFORCEMENT**  
**COLLECTION**

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Section No. 2

Bill No. 3

Concrete, Formwork And Reinforcement

Unit      Quantity      Rate      Amount

**SECTION NO. 2**

**BUILDERS WORK**

**BILL NO. 4**

**ROOF COVERINGS**

<u>Key:</u>	<u>Location Description:</u>
A	Dispatch area
B	Enclosed canopy
I	Item Location (Auto)

The Tenderer is referred to the relevant Clause in the separate document Model Preambles for Trades (2008 Edition) as published by the Association of South African Quantity Surveyors and the Supplementary Preambles which are incorporated in these Bills of Quantities

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**PROFIED METAL SHEETING AND ACCESSORIES**

**Notes**

The following roof sheeting systems are to be manufactured and/or supplied and installed in strict accordance with the manufacturer's and/or supplier's specifications

Fixing of all roof sheeting is to be in accordance with the manufacturer's approved instruction book

The manufacturer shall comply with ISO9002 Quality Management System. Sheeting shall be laid in strict accordance with the manufacturer's specifications by an approved contractor

A written and approved five year guarantee of site-workmanship and watertightness shall be issued after final inspection of concealed-fix roofing, cladding, etc., by the manufacturer

Carried to Collection

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Section No. 2

Bill No. 4

Roof Coverings

	Unit	Quantity	Rate	Amount
<b><u>Erection, handling and storage</u></b>				
Every precaution shall be taken to prevent damage to roof sheets, cladding, etc., during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, shall be replaced				
Sheetings should be suitably supported, clear of the ground, under well ventilated cover, away from risk of damage from building operations, contact with cement, dust, lime and abrasive dust, until required to be installed				
The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity				
The contractor shall ensure that all materials used on site for cladding, etc are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction				
<b><u>Cleaning, etc</u></b>				
All debris, swarf, etc. arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners and sealants, mandrels from pop rivets, off-cuts of flashings and sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters				
Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc				
<b><u>RAINWATER DISPOSAL</u></b>				
<b><u>Seamless aluminium industrial gutter installations of pre-painted double coated Polymer Silicon baked colour Charcoal Grey enamel finish</u></b>				
1		100 x 200mm Industrial box gutter 580mm girth, four times bent along girth, of guage 0,9mm with matching splash plate, fixed to falls on and including 20 x 3mm dual purpose aluminium hanger brackets spaced not exceeding 600mm centres using aluminium peeled rivets, fixed to steel roof members	m	21
A		21		
Carried to Collection			R	
Section No. 2				
Bill No. 4				
Roof Coverings				

		Unit	Quantity	Rate	Amount
2	Extra over eaves gutter for stopped end crimped and sealed on the inside with Dow Coring 813 silicone sealer	No	4		
	A 4				
3	Extra over eaves gutter for outlet for 100 x 75mm pipe and sealed on the inside with Dow Coring 813 silicone sealer	No	3		
	A 3				
4	100 x 75mm Industrial rainwater pipe of guage 0,6mm, fixed to wall with straps spaced not exceeding 1500mm centres using nail plugs	m	21		
	A 16 B 5				
5	Extra over 100 x 75 x 0,6mm guage rainwater pipe for shoe, riveted and sealed	No	6		
	A 3 B 3				
6	Extra over 100 x 75 x 0,6mm guage rainwater pipe for bend, riveted and sealed	No	6		
	A 6				
7	Extra over 100 x 75 x 0,6mm guage rainwater pipe for junction onto existing downpipe, riveted and sealed	No	3		
	B 3				
<b><u>ZIP-TEK 420 SHEETING</u></b>					
<b><u>Profile</u></b>					
The profile is roll-formed from certified material complying Aluminium 3004. The profile shall have a male and female upstand with an upstanded height of 68mm, which will provide a capillary brake. The nett effective cover width will be 424mm. The male head shall be smaller than the female head					
<b><u>Flashing</u></b>					
Stop endings must be formed at the apex and the pan turned down at the eaves to form a drip. The roof sheeting shall be closed as necessary with purpose-made flashings of a design approved by the supplier. These flashings shall be notched around ribs where necessary. All these operations must be performed with special tools available from the supplier					
Carried to Collection				R	
Section No. 2					
Bill No. 4					
Roof Coverings					

		Unit	Quantity	Rate	Amount
	<b><u>0,9mm Thick 'Hulamin 3004 Aluminium ZIP-TEK 420' Aluminium sheeting and accessories in single lengths with Stucco embossed PVDF finish (Colour Metallic Silver) on external face and standard backing coat on internal face and accessories concealed fixed to steel purlins or rails, with 'Zip-Tek' aluminium halters fixed with stainless steel self-tapping screws , installation region: from 100m to 400m off the coast, in strict accordance with the manufacturers instructions</u></b>				
8	Roof covering with pitch not exceeding 25 degrees including bitumen impregnated sealer strips at laps	m <sup>2</sup>	295		
	A 295				
	<b><u>0,8mm Thick 'Hulamin 3004' Aluminium flashings and accessories with Stucco embossed PVDF finish (Colour Charcoal Grey) on external face and standard backing coat on internal face, fixed to roof sheeting with sliding brackets of installation region: from 100m to 400m off the coast, in strict accordance with the manufacturers instructions</u></b>				
9	Headwall flashings 500mm girth (three times bent along length) and notched on site to suit roof profile	m	18		
	A 18				
10	Sidewall flashings 550mm girth (three times bent along length)	m	10		
	A 10				
11	Facia or barge flashing 680mm girth (two times bent along length) and with two polystrip sealer dust proofing to suit 'Zip-Tek 420' roof sheets along length	m	48		
	A 48				
12	Counter flashings 300mm girth (three times bent along length)	m	18		
	A 18				
13	Broad flute serrated closer to suit 'Ziptech 420' profile, including broad flute polyclosers	m	18		
	A 18				
	<b><u>0,8mm Thick 'Hulamin Aluminium BR7' aluminium sheeting and accessories in single lengths with Stucco embossed PVDF Colourtech finish (Colour Metallic Silver) on external face and standard backing coat on internal face and accessories Concealed fixed to steel purlins or rails, with 'Ziptech' aluminium halters fixed with stainless steel self tapping screws in strict accordance with the manufacturer's instructions</u></b>				
	Note: Side cladding fixed with broad flute facing out				
	Carried to Collection				
	Section No. 2				
	Bill No. 4				
	Roof Coverings				
				R	

		Unit	Quantity	Rate	Amount
14	Side cladding including bitumen impregnated sealer strips to side laps and 'Cladseal 300' tape to cladding rails at approximatley 1600mm centres	m <sup>2</sup>	469		
	A 275 B 194				
15	Closure piece 110mm girth	m	170		
	A 100 B 70				
16	Ditto, but 450mm girth	m	170		
	A 100 B 70				
17	Drip flashing 231mm girth	m	35		
	A 20 B 15				
18	Corner flashing 300mm girth	m	240		
	A 140 B 100				
19	Corner/jamb flashing 462mm girth	m	275		
	A 160 B 115				
20	Cap flashing 770mm girth	m	50		
	A 30 B 20				
21	Corner trim 575mm girth	m	155		
	A 90 B 65				
22	U-flashing 355mm girth	m	275		
	A 160 B 115				
23	Narrow flute serrated closer including polybutton	m	275		
	A 160 B 115				
24	Broad flute serrated closer including polybutton	m	275		
	A 160 B 115				
	<b>Sundries</b>				
25	3mm Aluminium top hat	m	50		
	A 50				
26	3mm Aluminium unequal leg 240mm girth	m	120		
	A 70 B 50				
27	Cut and fit side cladding around steel I-beam	No	20		
	A 20				
28	38 x 38 x 3mm Aluminium angle	m	290		
	A 170 B 120				
29	76 x 76 x 3mm Aluminium angle	m	290		
	A 170 B 120				
Carried to Collection					R
Section No. 2					
Bill No. 4					
Roof Coverings					

		Unit	Quantity	Rate	Amount
<b><u>MODEK HEAT STOP GREY POLYCARBONATE SHEETING</u></b> <b><u>1.2mm Thick Modek "Heat Stop Grey"</u></b> <b><u>Polycarbonate sheeting to BR7 profile, fixed to steel cladding rails in single lengths to suit high wind areas all in strict accordance with the manufacturer's instructions</u></b>					
30	Side cladding including sealing side laps with 8 x 5mm butyl seal	m <sup>2</sup>	50		
B	50				
Carried to Collection				R	
Section No. 2					
Bill No. 4					
Roof Coverings					

ELIDZ Minor Works  
Amount

**BILL NO. 4**  
**ROOF COVERINGS**  
**COLLECTION**

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Section No. 2  
Bill No. 4  
Roof Coverings



	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 2</u></b></p> <p><b><u>BUILDERS WORK</u></b></p> <p><b><u>BILL NO. 5</u></b></p> <p><b><u>METALWORK</u></b></p> <p><b><u>Key:</u></b>                      <b><u>Location Description:</u></b></p> <p>A                              Dispatch area</p> <p>B                              Enclosed canopy</p> <p>I                                Item Location (Auto)</p> <p>The Tenderer is referred to the relevant Clause in the separate document Model Preambles for Trades (2008 Edition) as published by the Association of South African Quantity Surveyors and the Supplementary Preambles which are incorporated in these Bills of Quantities</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary items or materials</u></b></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect</p> <p><b><u>Project particular specifications</u></b></p> <p>The specifications particular to this project are included in C3.2 Particular Specifications: Construction Works included in Envelope A Volume 1 of 2 of the tender documents. The Contractor is to take cognisance of them when pricing the relevant items in the Bill of Quantities as no extras arising out of their failure to do so will be entertained</p> <p><b><u>Descriptions of bolts, anchors, etc</u></b></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</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>Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p>				
Carried to Collection			R	
<p>Section No. 2</p> <p>Bill No. 5</p> <p>Metalwork</p>				

		Unit	Quantity	Rate	Amount
<b><u>Xpanda galvanised steel roller shutters with 0.8 x 76mm interlocked slats (18kg/m²) with nylon endlocks, aluminium T-bar with neoprene strip, side guides, canopy cover, etc, fixed to structural steelwork</u></b>					
<b><u>STEEL ROLLER SHUTTERS ETC</u></b>					
1	Chain operated slatted roller shutter for 4500 x 5000mm high opening, with 150mm side guides, 450mm square dust canopy cover	No	2		
A	2				
<b><u>GUARDRAILS, ETC</u></b>					
<b><u>Guardrails, etc</u></b>					
2	Guardrail comprising W-shaped galvanised steel Armco barrier guardrail with pre-drilled bolt holes fixed to structural steel (elsewhere measured) with and including suitable high yield Armco stress bolts	m	30		
B	30				
3	Extra over Armco barrier for 360 x 115 x 115mm CCA treated pine spacer block	No	10		
B	10				
4	Extra over Armco barrier for 360 degree return piece	No	2		
B	2				
Carried to Collection				R	
Section No. 2					
Bill No. 5					
Metalwork					

ELIDZ Minor Works  
Amount

**BILL NO. 5**  
**METALWORK**  
**COLLECTION**

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Bill No. 5  
Metalwork

			Amount
<b><u>SECTION NO. 2</u></b> <b><u>BUILDERS WORK</u></b> <b><u>SECTION SUMMARY</u></b>			
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**SECTION NO. 3**  
**EXTERNAL WORKS**

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 3</u></b>				
<b><u>EXTERNAL WORKS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>ROADS AND WALKWAYS</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
A	Dispatch area			
C	Secure parking			
I	Item Location (Auto)			
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<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
<b><u>Proprietary items or materials</u></b>				
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<b><u>Salvaged material</u></b>				
All material obtained in the demolitions to remain the property of the Employer and the Contractor shall not be entitled to retain same, unless by express instruction from the Principal Agent. Unwanted material and all rubble only to be taken to a suitable dumping site				
<b><u>Carting away of excavated material</u></b>				
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				
<b><u>Testing of material and filling</u></b>				
Descriptions of earth filling, compaction, etc shall be deemed to include for all necessary testing required in accordance with the SABS 1200 series				
<b><u>ROADWORK, PARKING AREAS AND PAVING</u></b>				
<b><u>Site clearance</u></b>				
1		Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc. and trees not exceeding 200mm girth, including grubbing up all roots, scoffling up as required and carting away	m²	67
C		67		
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Roads And Walkways				

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		Unit	Quantity	Rate	Amount
<b><u>Cutting through existing hardstands</u></b>					
2	Cutting through precast pavers not exceeding 80mm thick, in creating new kerb lines	m	98		
	C 98				
3	Cutting through precast pavers not exceeding 80mm thick, in creating new kerb lines circular on plan not exceeding 4m radius	m	3		
	C 3				
<b><u>Removal of existing materials</u></b>					
4	Lift and cart away precast concrete interlocking paving, in isolated areas	m <sup>2</sup>	38		
	C 38				
5	Lift and set aside precast concrete Bosum Urban type paving, including stacking in pallets for later re-use	m <sup>2</sup>	364		
	A 364				
6	Lift and set aside precast concrete Fig 3 road kerbs in isolated lengths	m	146		
	A 145 C 1				
<b><u>Re-laying of salvaged materials</u></b>					
7	Re-laying of 60mm Bosum Urban type precast concrete pavers laid on and including 20mm thick river sand bed with dry filler swept and vibrated into joints, to ramps etc	m <sup>2</sup>	143		
	A 134 C 9				
8	Re-laying of 60mm Bosum Urban type precast concrete pavers in making good isolated areas laid on and including 20mm thick river sand bed with dry filler swept and vibrated into joints, including stitching, cutting and waste against new road kerbs (kerbs elsewhere measured)	m <sup>2</sup>	29		
	A 23 C 6				
9	Re-laying of Fig 3 precast concrete road kerbs in isolated lengths, including 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc	m	87		
	A 87				
10	Re-laying of Fig 3 precast road kerbs in isolated lengths, including 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, circular on plan not exceeding 4m radius, formed with short lengths of straight kerbs, including excavation, backfilling, cutting, etc	m	7		
	A 7				
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		Unit	Quantity	Rate	Amount
	<b><u>Excavation in earth not exceeding 2m deep</u></b>				
11	Over site between buildings, retaining walls, etc. to reduce levels and dispose in prescribed stock piles on site	m <sup>3</sup>	182		
	A 164 C 18				
	<b><u>Extra over bulk excavation in earth for excavation in</u></b>				
12	Soft rock	m <sup>3</sup>	1		
	A 1				
13	Hard rock	m <sup>3</sup>	1		
	A 1				
	<b><u>Extra over all excavations for loading, carting and dumping excavated material (no allowance made for increase in bulk)</u></b>				
14	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	182		
	A 164 C 18				
	<b><u>Keeping excavations free of water</u></b>				
15	Keeping excavations free of all water other than subterranean water	Item			
	I 1				
	<b><u>Earth filling using imported material supplied by the contractor in backfilling under parking areas, roadways, etc. and compacted in layers not exceeding 150mm thick</u></b>				
16	Sub-base course of G7 material in accordance with SABS 1200 DM, compacted to 98% Mod AASHTO density	m <sup>3</sup>	70		
	A 59 C 11				
17	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 98% Mod AASHTO density	m <sup>3</sup>	38		
	A 38				
	<b><u>Compaction of surfaces</u></b>				
18	Compaction of ground surfaces under pavings etc., including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m <sup>2</sup>	465		
	A 395 C 70				
	<b><u>Additional tests required by the engineer</u></b>				
19	In-situ dry density test in accordance with method A10(b) of TMH1	No	2		
	A 2				
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<b><u>30MPa/19mm reinforced concrete</u></b>				
20	Paving to parking areas, roadways, etc. in panels between construction joints etc A 51	m <sup>3</sup>	51		
21	Paving to walkways, anti-dig aprons, etc. in panels between construction joints etc C 5	m <sup>3</sup>	5		
22	Gate track ground beam C 2	m <sup>3</sup>	2		
	<b><u>Finishing top surfaces of concrete with broom drag finish</u></b>				
23	Paving to parking areas, roads, etc. to falls A 253 C 57	m <sup>2</sup>	310		
	<b><u>Test cubes</u></b>				
24	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional) A 4	No	4		
	<b><u>Smooth formwork to sides</u></b>				
25	Edges, risers, ends and reveals not exceeding 300mm high or wide C 28	m	28		
	<b><u>Saw-cut joints</u></b>				
26	6 x 30mm Saw-cut joints in top of concrete A 33 C 20	m	53		
27	3 x 65mm Saw-cut joints with top reamed out to 6 x 30mm in top of concrete A 36	m	36		
	<b><u>Form construction joint 200 mm high using a diamond dowel system comprising 115mm x 115mm x 5mm thick hot dipped galvanised plates at 450mm centres including one coat bitumen to one face and all necessary formwork, temporary pegs, stays, supports, etc.,</u></b>				
28	Paving not exceeding 300mm thick (provisional) A 58	m	58		
	<b><u>Fabric reinforcement</u></b>				
29	Mesh Ref 395 fabric reinforcement in concrete paving, surface beds, etc C 52	m <sup>2</sup>	52		
30	Mesh Ref 500 fabric reinforcement in concrete paving etc A 253	m <sup>2</sup>	253		
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				ELIDZ Minor Works	
		Unit	Quantity	Rate	Amount
41	300mm Wide line	m	6		
	C 6				
42	Straight directional arrow 300 x 3500mm overall	No	2		
	C 2				
43	Painted "STOP" sign with 2000mm high letter	No	1		
	C 1				
44	Painted disabled parking bay sign 2000mm long.	No	1		
	C 1				
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**SECTION NO. 3**

**EXTERNAL WORKS**

**BILL NO. 2**

**FENCING**

<u>Key:</u>	<u>Location Description:</u>
A	Dispatch area
C	Secure parking
I	Item Location (Auto)

The Tenderer is referred to the relevant Clause in the separate document Model Preambles for Trades (2008 Edition) as published by the Association of South African Quantity Surveyors and the Supplementary Preambles which are incorporated in these Bills of Quantities

**SUPPLEMENTARY PREAMBLES**

**National treasury designated sectors instruction number 15 of 2016/2017**

Only locally produced or locally manufactured steel products and components for construction with a stipulated minimum threshold of 100 percent for local production and content will be considered in accordance with National treasury designated sectors

**HOT DIPPED GALVANIZED SECURITY FENCING**

**Hot dipped galvanized palisade fencing**

- 1 Palisade fence 2100mm high comprising of 2,05m high 40 x 40 x 2.5mm angle iron spear head profile pales at maximum 180mm centres (16 per 3m section) in nominal panel size 3000m wide, with centre pale 2,5m high 40 x 40 x 3mm angle, secured to and including 76 x 3,5mm SHS hot dip galvanised posts 2750mm in length, at 3m centres (SABS 121, ISO 1461 1999 specification ) after welding of fish tail brackets to posts to receive rails with top of post capped and seam welded and ground smooth prior to galvanizing 8mm drainage hole, with and including 40 x 40 x 2,5mm angle section top and bottom rails, bolted to posts using 2No. 40 x 4mm x 250mm long fish plate brackets, bent around half of each post, bolted back to back with rail in between, with M12 x 40mm (4No per 3m section) galvanized cup square bolt and high tensile anti-vandal shear nuts,

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Fencing

	Unit	Quantity	Rate	Amount
posts are planted in a minimum of 20MPa 19mm aggregate concrete block 400 x 400 x 650mm deep foundation to be excavated to 750mm deep for top of foundation to be 100mm below natural ground level, and the centre anti-sag pale dropper to be set in 250 x 250 x 400mm deep concrete block foundation to be excavated to 500mm deep for top of foundation to be 100mm below natural ground level, minimum 20Mpa				
At changes of direction greater than 15 degrees or at junction with posts of a different fence type, posts are planted in a minimum of 30MPa 19mm aggregate concrete block 1000 x 1000 x 1000mm deep foundation to be excavated to 1100mm deep for top of foundation to be 100mm below natural ground level, including all necessary excavation, backfill, carting away, formwork etc installed complete as per Palisade Fence Detail on drawing number STP-DT-02 attched to these Bills of Quantities	m	98		
C 98				
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## **SECTION NO. 4**

# **OCCUPATIONAL HEALTH AND SAFETY**

	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 4</u></b></p> <p><b><u>OCCUPATIONAL HEALTH AND SAFETY</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>HEALTH AND SAFETY</u></b></p> <p><b><u>TRADE PREAMBLES</u></b></p> <p><b><u>Trade Preambles</u></b></p> <p>For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Supplementary Preambles</u></b></p> <p>Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent each item</p> <p>Prior to pricing the Principal Contractor must familiarize him/herself with the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, Covid 19 and any other relevant Regulations and Standards as well as project specific Health &amp; Safety specifications</p> <p>The quantities contained herein serve as a guideline only to determine if the contractor has sufficiently priced for the Health and Safety obligations and demands of the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, other relevant Regulations and Standards as well as project specific Health &amp; Safety specifications. Were quantities are missing the contractor is to insert his own quantities based on his individual requirements to comply with the Health and Safety obligations and demands of the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, other relevant Regulations and Standards as well as project specific Health &amp; Safety specifications</p> <p>All Costs to comply with the obligations and demands of the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, Covid 19 regulations and any other other relevant Regulations and Standards as well as project specific Health &amp; Safety Specifications not listed or mentioned below must be priced in Preliminaries Section of the Bills of Quantities ' Clause 7,2 Health and Safety and Covid 19' no additional claims in respect of compliance with the above mentioned will be considered</p>				
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<p>Section No. 4</p> <p>Bill No. 1</p> <p>Health And Safety</p>				

	Unit	Quantity	Rate	Amount
<b><u>OCCUPATIONAL HEALTH AND SAFETY</u></b>				
<b><u>Full time safety officer</u></b>				
1 Full time attendance on site of a SACPCMP-registered construction health and safety officer or manager from the start of construction until the end of project handover	Months	2		
<b><u>General</u></b>				
2 First aiders and first aid kits	Item			
3 Medical certificates of fitness Medical examination of all employees and certification of fitness by an occupational medicine practitioner. Pre-employment, annual and exit medical examination is required	Item			
4 Emergency Equipment based on the risk exposure and emergency rescue. stretchers, neck brace, spill kits, lifting and lowering hosting equipment of the injured	Lump Sum			
5 Competent inspectors for equipment such as examples scaffolding inspectors and lifting machine inspector	Lump Sum			
6 Mandatory training such as risk assessments, legal liability/OHS Act, incident investigation	Lump Sum			
7 Provide, supply and maintenance for each worker the following SANS approved personal protective equipment & clothing as per the site-specific risk assessments: • Hard Hats • Overall/work suit (100% Cotton) • Safety boots/shoes (Steel-Toe) • Safety gumboots (Steel-Toe) • Ear Plugs/Muffs • Dust Mask(at least FF2 type) • Respirators • Safety goggles • Hand gloves •Reflector vests • Other	Item			
8 Barricading and hoarding for fall arrest, SANS approved safety netting (orange color with minimum of 1,2 meters high)	Lump Sum			
9 Waste bins on site and regular removal	Item			
10 Construction signage, including the sign for the construction work permit number	Item			
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Health And Safety				

		Unit	Quantity	Rate	Amount
11	Safe scaffolding	Lump Sum			
12	Safe lifting equipment for lifting and lowering pipes	Lump Sum			
13	Occupational hygiene measurement and/or AIA certification, where required Measurement or certification of risk exposure	Lump Sum			
14	Employee facilities drinking water, change facility, personal lockers, wash facilities, eating facilities) considering toilet and rest facilities along the road alignment	Lump Sum			
15	Dust control measure for the prevention of dust nuisance	Item			
<b><u>HEALTH AND SAFETY EDUCATION</u></b>					
<b><u>Health and safety education</u></b>					
16	Allow for all compulsory health and safety awareness programme (e.g. Inductions, toolbox Talks, Safety Promotions, H&S related training, etc.)	Item			
<b><u>Cost of medical certificates and medical surveillance</u></b>					
17	(a) Initial (baseline) medical examinations (quantity to be aligned with risk assessment and scaling in employment)	Item			
18	(b) Periodic and exit examinations (quantity to be aligned with risk assessment and scaling in employment)	Item			
<b><u>ENVIRONMENTAL</u></b>					
<b><u>Environmental</u></b>					
19	Provide for adequate handling and storage of materials so as to minimize contamination of ground, air or water	Item			
20	Provide for the adequate and safe collection and disposal of waste material from site by an approved method	Item			
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		Unit	Quantity	Rate	Amount
21	Provide for rehabilitation on completion of site areas and temporary access routes not covered by construction or landscaping specifications. i.e. grass seeding/hydro seeding, maintenance of alien vegetation	Item			
22	Provide for stockpiling of topsoil for re-use	Item			
23	Provide for a responsible person to prepare and update Method Statements, conduct regular inspections, maintain records, and report to the Principal Agent	Item			
<b><u>COMPULSORY BREAKDOWN FOR THE ADJUSTMENT OF OHS</u></b>					
<b><u>Compulsory breakdown for the adjustment of OHS requirements</u></b>					
Value related ( R_____ )					
Fixed related ( R_____ )					
Time related ( R_____ )					
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**SECTION NO. 5**  
**PROVISIONAL SUMS**



	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>				
<b><u>PROVISIONAL SUMS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>PROVISIONAL SUMS</u></b>				
<b><u>PROVISIONAL SUMS</u></b>				
<b><u>The following Selected Sub-Contract amounts are for work to be carried out by Selected Sub-Contractors in terms of clause 21 of the Principal Building Agreement</u></b>				
<b><u>STRUCTURAL STEEL WORK</u></b>				
<b><u>Structural steelwork</u></b>				
1				
Provide the sum of R 450 000.00 (Four Hundred and Fifty Thousand Rands) for the supply and erection of structural steelwork to undercover canopy (allowed 30kg/m²)	Item			450 000 00
2				
Profit on above item	Item			4 500 00
3				
Attendance on ditto	Item			4 500 00
<b><u>GALVANISED STEEL GATES, ETC.</u></b>				
<b><u>Hot dip galvanised fabricated steel gates, etc</u></b>				
4				
Provide the sum of R 195 000.00 (One Hundred and Ninety Five Thousand Rands) for 1 x single pedestrian gate, 1 x sliding vehicle gate with track and 1 x intekom swan neck, including all associated posts, concrete bases, guides, D5 motor, gate beams, etc.	Item			195 000 00
5				
Profit on above item	Item			1 950 00
6				
Attendance on ditto	Item			1 950 00
<b><u>FIRE ESCAPE DOORS</u></b>				
<b><u>Fire escape doors</u></b>				
7				
Provide the sum of R 45 000.00 (Forty Five Thousand Rands) for 2 x fire escape doors, installed complete	Item			45 000 00
8				
Profit on above item	Item			
9				
Attendance on ditto	Item			
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	Unit	Quantity	Rate	Amount
<b><u>SHADE PORTS</u></b>				
<b><u>Vehicle shade ports</u></b>				
10				
Provide the amount of R 190 000.00 (One Hundred and Ninety Thousand Rands) for a cantilever pyramid style shadeport structure, including concrete bases	Item			190 000 00
11	Item			
Profit on above item				
12	Item			
Attendance on ditto				
<b><u>SPECIALIST FLOORING APPLICATIONS</u></b>				
<b><u>Specialist epoxy application for drainage below silos</u></b>				
13				
Provide the amount of R 75 000.00 (Seventy Five Thousand Rands) for the application of specialist epoxy flooring underneath Silos	Item			75 000 00
14	Item			750 00
Profit on above item				
15	Item			750 00
Attendance on ditto				
<b><u>ELECTRICAL AND MECHANICAL INSTALLATION</u></b>				
<b><u>Electrical installation</u></b>				
16				
Provide the amount of R 150 000.00 (One Hundred and Fifty Thousand Rands) for electrical sleeves, power supply and external lighting, as per electrical engineer	Item			150 000 00
17	Item			
Profit on above item				
18	Item			
Attendance on ditto				
<b><u>Access control</u></b>				
19				
Provide the amount of R 50 000.00 (Fifty Thousand Rands) for access control, as per electrical engineer	Item			50 000 00
20	Item			500 00
Profit on above item				
21	Item			500 00
Attendance on ditto				
<b><u>Fire protection</u></b>				
22				
Provide the sum of R 90 000.00 (Ninety Thousand Rands) fire sprinklers to underside of canopies, as per mechanical engineer	Item			90 000 00
23	Item			
Profit on above item				
24	Item			
Attendance on ditto				
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