

**WORK TO THE EXISTING RAMPART BUILDINGS AND SURROUNDING WALLS
 OLD FORT
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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
146		SECTION NO.1: PRELIMINARIES AND GENERAL				
146		BILL NO: 1				
146		BUILDING AGREEMENT AND PRELIMINARIES				
146		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				
146		The JBCC Principal Building Agreement contract data form an integral part of this agreement				
146		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				
146		The contractor is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause				
146		The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only				
146		Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"				
146		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				
147		PREAMBLES FOR TRADES				
147		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				
147		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				
147		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				
147		STRUCTURE OF THIS PRELIMINARIES BILL				
147		Section A : A recital of the headings of the individual clauses in the aforementioned JBCC Principal Building Agreement				
147		Section B : A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries				
147		Section C : Any special clauses to meet the particular circumstances of the project				
147		PRICING OF PRELIMINARIES				
147		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)				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
147		SECTION A: PRINCIPAL BUILDING AGREEMENT				
148		Interpretation (A1-A7)				
148	1	Clause 1.0 - Definitions and interpretation				
148		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				
148		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				
148		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				
148		Abbreviated descriptions				
148		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				
148		Legal status of contractor				
149		If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:				
149		1. These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement				
149		2. These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons				
149		3. The contractor shall not alter its composition or legal status without the prior written consent of the employer				
149		F:..... V:..... T:.....	Item	1		
149	2	Clause 2.0 - Law, regulations and notices				
149		Clause 3.0 - Offer and acceptance F:.....				
149	3	V:..... T:.....	Item	1		
149		Clause 4.0 - Cession and assignment F:.....				
149	4	V:..... T:.....	Item	1		
149	5	Clause 5.0 - Documents				
149		Value Added Tax				
149		Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)				
149		The principal agent shall decide which portion of the priced document may be used as a specification of materials and goods or methods, if any				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
150		Electronic issue of drawings All drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.6]				
150		F:..... V:..... T:.....	Item	1		
150	6	Clause 6.0 - Employer's agents				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
150		Delegated authority The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions:				
150		1. Architect				
150		1.1 Duties [6.2] : The architect is responsible for the architectural design, functional design and quality inspection of the works				
150		1.2 Contract instructions [6.2; 17.1] :				
150		1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement				
150		1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works				
150		1.2.3 The site [13.0]				
150		1.2.4 Compliance with the law, regulations and bylaws [2.1]				
150		1.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works				
150		1.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]				
151		1.2.7 Removal or re-execution of work				
151		1.2.8 Removal or substitution of any materials and goods				
151		1.2.9 Protection of the works				
151		1.2.10 Making good physical loss and repairing damage to the works [23.2.2]				
151		1.2.11 Rectification of defects [21.2]				
151		1.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion				
151		1.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums				
151		1.2.14 Appointment of a subcontractor [14.0; 15.0]				
151		1.2.15 Work by direct contractors [16.0]				
151		1.2.16 On suspension or termination, protection of the works, removal of construction equipment and surplus materials and goods [29.0]				
151		2. Quantity surveyor				
151		2.1 Duties [6.2] : The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works				
151		2.2 Contract instructions [6.2; 17.1] :				
152		2.2.1 No contract instructions delegated to the quantity surveyor				
152		3. Civil and structural engineer				
152		User note				
152		Insert the following but remove where the consultant is not relevant to this agreement. Edit both the duties and the contract instructions of the consultant in keeping with the wishes of the principal agent				
152		Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA				
152		3.1 Duties [6.2] : The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works				
152		3.2 Contract instructions [6.2; 17.1] :				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
152		3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement				
152		3.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works				
152		3.2.3 The site [13.0]				
152		3.2.4 Compliance with the law, regulations and bylaws [2.1]				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
152		3.2.5Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works				
152		3.2.6Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]				
152		3.2.7Removal or re-execution of work				
153		3.2.8Removal or substitution of any materials and goods				
153		3.2.9Protection of the works				
153		3.2.10Making good physical loss and repairing damage to the works [23.2.2]				
153		3.2.11Rectification of defects [21.2]				
153		3.2.12A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion				
153		3.2.13Expenditure of budgetary allowances, prime cost amounts and provisional sums				
153		8. Health and safety consultant				
153		8.1 Duties [6.2] : The health and safety consultant is responsible for all aspects of health and safety of the works. Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works. He shall:				
153		8.1.1Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act,1993 as amended				
153		8.1.2Prepare and update the health and safety specification for the works				
153		8.1.3Agree with the contractor the health and safety plan for the works				
153		8.1.4Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations				
154		8.1.5Stop the execution of the works where the agreed specification or plan is not adhered to				
154		F:..... V:..... T:.....	Item	1		
154	7	Clause 7.0 - Design responsibility F:.....	Item	1		
154		V:..... T:.....				
154	8	Insurances and securities (A8-A11)	Item	1		
154		Clause 8.0 - Works risk F:..... V:.....				
154	9	T:.....	Item	1		
154		Clause 9.0 - Indemnities F:..... V:.....				
154	10	T:.....	Item	1		
154	11	Clause 10.0 - Insurances F:..... V:.....				
154		T:.....				
154		Clause 11.0 - Securities				
154		Guarantee for payment				
154		The employer shall provide to the contractor a guarantee for payment in the amount ofRand				
154		(R.....) [11.5.1]. The contractor shall consequently waive his lien or right of continuing possession of the works [11.10]				
154		Extension of waiver of lien				
154		The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10]				
155		F:..... V:..... T:.....	Item	1		
155		Execution (A12 - A17)				
155	12	Clause 12.0 - Obligations of the parties				

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155		Office accommodation The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]				
155		Notice board The contractor shall erect in a position approved by the principal agent, 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 employer, the contractor and the professional consultants. No subcontractor 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]				
155		Statutory and other notices				
155		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 the works 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				
155		F:..... V:..... T:.....	Item	1		
156	13	Clause 13.0 - Setting out F:..... V:..... T:.....	Item	1		
156	14	Clause 14.0 - Nominated subcontractors				
156		F:..... V:..... T:.....	Item	1		
156	15	Clause 15.0 - Selected subcontractors				
156		F:..... V:..... T:.....	Item	1		
156	16	Clause 16.0 - Direct contractors Attendance on direct contractors In respect of direct contractors the contractor shall:				
156		1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials				
156		2. Allow the use of personnel welfare facilities, where provided				
156		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				
156		4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1]				
156		F:..... V:..... T:.....	Item	1		
157	17	Clause 17.0 - Contract instructions Site instructions Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor				
157		F:..... V:..... T:.....	Item	1		
157		Completion (A18 - A24)				
157	18	Clause 18.0 - Interim completion	N/A			
157		Clause 19.0 - Practical completion F:.....				
157	19	V:..... T:.....	Item	1		
157	20	Clause 20.0 - Completion in sections				
157		F:..... V:..... T:.....	Item	1		
157	21	Clause 21.0 - Defects liability period and final completion				
157		F:..... V:..... T:.....	Item	1		
157		Clause 22.0 - Latent defects liability period F:.....				
157	22	V:..... T:.....	Item	1		

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157	23	Clause 23.0 - Revision of the date for practical completion Substitution of materials and goods The removal or substitution of any materials and goods 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 contract value [17.1.8; 23.1 & 2]				
158		F:..... V:..... T:.....	Item	1		
158	24	Clause 24.0 - Penalty for late or non-completion F:..... V:..... T:.....	Item	1		
158		Payment (A25 - A27)				
158	25	Clause 25.0 - Payment				
		Prices submitted Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing				
158		F:..... V:..... T:.....	Item	1		
158	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 Added Tax, shall be for the account of the contractor [26.9.5]				
158		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				
159		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]				
159		F:..... V:..... T:.....	Item	1		
159	27	Clause 27.0 - Recovery of expense and/or loss F:..... V:..... T:.....	Item	1		
159		Suspension and termination (A28 - A29)				
159	28	Clause 28.0 - Suspension by the contractor				
159		F:..... V:..... T:.....	Item	1		
159	29	Clause 29.0 - Termination				
159		F:..... V:..... T:.....	Item	1		
159		Dispute resolution (A30)				
159	30	Clause 30.0 - Dispute resolution F:..... V:..... T:.....	Item	1		
159	31	Agreement				
		The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties F:..... V:..... T:.....				
159		T:.....	Item	1		
159	32	Contract data				
159		Tenderer's selections				
160		Before submission of his tender the contractor is to complete the tenderer's selections in the contract data				
160		User note All information for the above requires consultation with the contractor. The principal agent should not pre-select any of the alternatives available to the contractor				
160		F:..... V:..... T:.....	Item	1		
160		SECTION B: GENERAL PRELIMINARIES				

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160		Definitions and interpretation (B1)				

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160	33	Clause 1.1 - Definitions F:..... V:..... T:.....	Item	1		
160	34	Clause 1.2 - Interpretation F:..... V:..... T:.....	Item	1		
160		Documents (B2)				
160	35	Clause 2.1 - Checking of documents F:..... V:..... T:.....	Item	1		
160	36	Clause 2.2 - Provisional bills of quantities Multiple procurementThese bills of quantities are in multiple procurement format ie the "wet trades" - earthworks, concrete, formwork and reinforcement, precast concrete, masonry, waterproofing and sub-surface drainage - are provisionally measured and the subsequent trades are budgetary allowances and/or provisional sums F:..... V:..... T:.....	Item	1		
161	37	Clause 2.3 - Availability of construction information F:..... V:..... T:.....	Item	1		
161	38	Clause 2.4 - Ordering of materials and goods F:..... V:..... T:.....	Item	1		
161		Previous work and adjoining properties (B3)				
161	39	Clause 3.1 - Previous work - dimensional accuracy F:..... V:..... T:.....	Item	1		
161	40	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item	1		
161	41	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item	1		
161		The site (B4)				
161	42	Clause 4.1 - Handover of site in stages F:..... V:..... T:.....	Item	1		
161	43	Clause 4.2 - Enclosure of the works F:..... V:..... T:.....	Item	1		
161	44	Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....	Item	1		
162	45	Clause 4.4 - Encroachments F:..... V:..... T:.....	Item	1		
162	46	Clause 4.5 - Existing premises occupied F:..... V:..... T:.....	Item	1		
162	47	Clause 4.6 - Services - known F:..... V:..... T:.....	Item	1		
162		Management of contract (B5)				
162	48	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item	1		

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162	49	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item	1		
162	50	Clause 5.3 - Technical meetings F:..... V:..... T:.....	Item	1		
162	51	Samples, shop drawings and manufacturer's instructions (B6) Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item	1		
162	52	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item	1		
163	53	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item	1		
163	54	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item	1		
163	55	Deposits and fees (B7) Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item	1		
163	56	Temporary services (B8) Clause 8.1 - Water F:..... V:..... T:.....	Item	1		
163	57	Clause 8.2 - Electricity F:..... V:..... T:.....	Item	1		
163	58	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item	1		
163	59	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item	1		
163	60	Prime cost amounts (B9) Clause 9.1 - Responsibility for prime cost amounts				
164	61	Attendance on subcontractors (B10) Clause 10.1 - General attendance F:..... V:..... T:.....	N/A			
164	62	Clause 10.2 - Special attendance F:..... V:..... T:.....	N/A			
164	63	General (B11) Clause 11.1 - Protection of the works F:..... V:..... T:.....	Item	1		
164	64	Clause 11.2 - Protection/isolation of existing works and works occupied in sections F:..... V:..... T:.....	Item	1		
164	65	Clause 11.3 - Security of the works F:..... V:..... T:.....	Item	1		
164	66	Clause 11.4 - Notice before covering work F:..... V:..... T:.....	Item	1		
164	67	Clause 11.5 - Disturbance Disturbance All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever F:..... V:..... T:.....	Item	1		

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165	68	Clause 11.6 - Environmental disturbance Controlling all forms of pollution The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc				
165		The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works				
165		Environmental management planThe employer has prepared an environmental management plan (refer to Annexures for a copy of the relevant plan). The contractor shall price opposite this item for compliance with all the requirements of such EMP F:..... V:.....T:.....	Item	1		
165	69	Clause 11.7 - Works cleaning and clearing F:..... V:..... T:.....	Item	1		
166	70	Clause 11.8 - Vermin F:..... V:..... T:.....	Item	1		
166	71	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item	1		
166	72	Clause 11.10 - Tenant installations F:..... V:..... T:.....	Item	1		
166	73	Clause 11.11 - Advertising F:..... V:..... T:.....	Item	1		
166		SECTION C: SPECIFIC PRELIMINARIES				
166	74	Warranties for materials and workmanship Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract				
166		The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects 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 notice to do so				
166		The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor F:..... V:..... T:.....	Item	1		
167	75	Overtime Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer F:..... V:.....T:.....	Item	1		
167	76	Cooperation of the contractor for cost management It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget F:..... V:.....T:.....	Item	1		

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167	77	Overloading The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense F:..... V:.....T:.....	Item	1		
168	78	Propping of floors below The contractor 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 materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor F:..... V:.....T:.....	Item	1		
168	79	Testing of flat roof waterproofing for watertightness Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing F:..... V:.....T:.....	Item	1		
168	80	Health and safety				
168		Health and safety Without limiting the generality of the provisions of clause 2.0, the contractor's 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 employer shall prepare a documented health and safety specification for the works (refer to Annexures for a copy of the relevant specification) and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor 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]				
169		The contractor shall: 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
169		F:..... V:..... T:..... Broad based black economic empowerment (BBBEE) Tenders submitted will be evaluated taking into account their empowerment rating The employer will be monitoring the broad based black economic empowerment (BBBEE) status of the contractor throughout the execution of the works	Item	1		
169	81	The contractor is to submit to the principal agent on an annual basis a schedule of spend, split into vendors engaged as subcontractors and suppliers indicating their BBBEE rating including proof of the said rating				
169		F:..... V:..... T:..... Advertising rights The employer 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 contractor 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 principal agent so as not to hinder the contractor in meeting his obligations under this agreement F:.....	Item	1		
170	82	V:..... T:..... Confidentiality The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works No information regarding this project shall be published or disclosed without the prior written consent of the employer F:..... V:..... T:.....	Item	1		
170	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	Item	1		
170	84	F:..... V:..... T:.....	Item	1		
171		SUMMARY OF CATEGORIES Category : Fixed R..... Category : Value R..... Category : Time R.....				
171		Carried to Final Summary				
						R -

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174		SECTION NO. 2: GUARD HOUSES				
174		BILL NO. 1				
174		DEMOLITIONS AND ALTERATIONS				
174		Generally				
		It is strongly recommended that Tenderers undertake a detailed inspection of the existing building in order to acquaint themselves with the nature and singular requirements of the work falling within the scope of this contract.				
174		The Contractor will be held liable for any damage, injury or loss that may result from inadequate precautions being taken in this regard. At all times and in all respects, the existing services and function of the existing services of the existing works are to be fully maintained and kept operational				
174		The Contractor will be held solely responsible for injury to persons or damage to property caused by his employees throughout the duration of the Contract, and will be required to make good, at his own expense, any damage for which he may be held responsible				
174		Old material to be carted away Old materials from the alterations, except where described to be re-used or handed over, as well as all rubbish, etc., must be regularly carted from the site and not be allowed to accumulate on or around the site				
174		User note				
175		Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions Take note that these Model Bills of Quantities utilise abbreviated descriptions The Model Preambles for Trades 2008 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicable (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2008				
175		View site				
		Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials salvageable from the alterations. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
175		Explosives				
		No explosives whatsoever may be used for alteration purposes unless otherwise stated				
175		General				
176						

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176		The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent				
176		Doors, fanlights, windows, fittings, frames, linings, etc which are to remain the property of the employer shall be carefully taken out, temporarily stored, transported over a distance of approximately 1km to store and handed over to the employer				
176		Doors, fanlights, windows, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc, and oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately				
176		Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc				
176		Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc				
176		With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork				
176		Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary				
176		The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)				
177		REMOVAL OF EXISTING WORK				
177		Breaking up and removing unreinforced concrete				
177	1	Footings, etc.	m3	4	R	-
177	2	Precast concrete pavers and set aside for re-use.	m2	16	R	-
177		Breaking up and removing reinforced concrete, including cutting off and removing reinforcement				
177	3	150mm Thick surface beds.	m2	27	R	-
177	4	Foundation beams, raft foundations, etc.	m3	6	R	-
177		Carefully break down existing brick walls and set aside bricks on site for re-use.				
177	5	One brick wall in substructure.	m2	2	R	-
177	6	One brick wall in superstructure.	m2	49	R	-
177	7	Mass brick steps	m3	2	R	-
177		Carefully take out and remove doors, windows, etc from brickwork to be demolished				

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180		SECTION NO. 2: GUARD HOUSES				
180		BILL NO. 2				
180		EARTHWORKS (PROVISIONAL)				
180		SUPPLEMENTARY PREAMBLES				
180		Nature of ground				
		Use "assumed to be" if no trial holes, soils investigations, etc have been carried out - discuss with engineer. Use "Trial holes indicate that" where the ground has been investigated by means of trial holes				
180		Nature of ground				
180		A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured				
180		Carting away of excavated material				
		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				
180		SITE CLEARANCE ETC				
180		Site clearance				
180	1	Stripping average 150mm thick layer of top soil and stockpiling on site.	m2	16	R	-
180		EXCAVATION, FILLING, ETC				
180		Excavation in earth not exceeding 2m deep:				
180	2	Reduced levels under floors.	m3	2	R	-
181	3	Trenches.	m3	6	R	-
181	4	Raft foundations.	m3	3	R	-
181		Extra over trench and hole excavations in earth for excavation in:				
181	5	Soft rock.	m3	1	R	-
181	6	Hard rock.	m3	1	R	-
181		Extra over all excavations for carting away:				
		Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.				
181	7	Risk of collapse of excavations:	m3	12	R	-
181		Sides of trench and hole excavations not exceeding 1,5m deep.				
181	8	Keeping excavations free of water:	m2	21	R	-
181		Keeping excavations free of all water other than subterranean water.				
181	9	EARTH FILLING, ETC.	Item	1	R	-
		Earth filling of G7 quality material obtained from the excavations and / or prescribed stock piles on site compacted to 95% Mod. AASHTO density:				
181		Under solid floors in 150mm layers.	m3	6	R	-
181		Earth filling of G5 quality material supplied by the contractor compacted to 95% Mod AASHTO density:				
181	11	Under floors, steps, pavings, etc.	m3	5	R	-
181		Sand blinding:				
181	12	50mm Thick layer of approved clean sand filling under surface beds.	m2	5	R	-
182		Compaction of surfaces				
		Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density.				
182	13		m2	5	R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
182		Prescribed density tests on filling: Allow for compaction tests by an approved laboratory to determine density of filling material.	No	4		R -
182	14	SOIL POISONING				
182		Soil insecticide				
182	15	Under floors, etc including forming and poisoning shallow furrows against foundation walls, etc and filling in furrows and ramming.	m2	20		R -
182	16	To bottoms and sides of trenches, etc.	m2	21		R -
						R -
184		SECTION NO. 2: GUARD HOUSES				
184		BILL NO. 3				
184		CONCRETE, FORMWORK AND REINFORCEMENT				
184		SUPPLEMENTARY PREAMBLES				
184		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 architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)				
184						
		Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated				
184		"Foamcement " lightweight concrete				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
184		"Foamcement" lightweight concrete is to have a density of 600kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm				
184		"Celbeton" lightweight concrete				
184		"Celbeton" lightweight concrete is to have a density of 1000kg/m3 for the top 20mm and 480kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 30mm				
185		Formwork				
185		Description 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				
185		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.				
185		Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
185		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"				
185		FOUNDATIONS (PROVISIONAL)				
185		UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
185		15MPa/20mm concrete:				
185	1	Aprons to falls.	m3	4	R	-
185		30MPa/20mm concrete:				
185	2	Raft foundations.	m3	1	R	-
185		REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
186		30MPa/20mm concrete:				
186	3	Footings.	m3	2	R	-
186		REINFORCED CONCRETE				
186		25MPa/20mm concrete:				
186	4	Surface beds on waterproofing.	m3	1	R	-
186		TEST CUBES				
186	5	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	3	R	-
186		CONCRETE SUNDRIES				
186		Finishing top surfaces of concrete smooth with a wood float:				
186	6	Surface beds, slabs, etc.	m2	32	R	-
186		ROUGH FORMWORK (DEGREE OF ACCURACY III)				
186		Rough Formwork to Sides				
186	7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	38	R	-
186		REINFORCEMENT (PROVISIONAL)				
186		High tensile steel reinforcement to structural concrete work				
186	8	12mm Diameter bars.	t	0,20	R	-
186		Fabric reinforcement				
186	9	REF. 193 fabric reinforcement in concrete surface beds, slabs, etc.	m2	5	R	-
					R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
188		SECTION NO. 2: GUARD HOUSES				
188		BILL NO. 4				
188		MASONRY				
188		SUPPLEMENTARY PREAMBLES				
188		BRICKWORK				
188		Sizes in descriptions				
188		Where sizes in descriptions are given in brick units, "one brick" shall				
188		represent the length and "half brick" the width of a brick				
188		Hollow walls etc				
188		Descriptions of hollow walls shall be deemed to include leaving every				
188		fifth perpend of the bottom course of the external skin open as a weep				
188		hole.				
188		Walls in two skins described as "bagged and sealed" shall be deemed				
188		to include having the outer face of the inner skin bagged with 1:6				
188		cement and sand mixture and sealed with two coats "Brixeal" bitumen				
188		emulsion waterproofing coating.				
188		User note:				
188		The above preamble generally applies for works in hot and humid				
188		coastal areas				
188		Face bricks				
188		Bricks shall be ordered timeously to obtain uniformity in size and				
188		colour				
189		Pointing				
189		Descriptions of recessed pointing to fair face brickwork and face				
189		brickwork shall be deemed to include square recessed, hollow				
189		recessed, weathered pointing, etc				
189		FOUNDATIONS (PROVISIONAL)				
189		Brickwork of NFX bricks (14 MPa nominal compressive strength) in				
189		Class I mortar:				
189	1	One and half brick walls.	m2	2	R	-
189		Brickwork salvaged from demolitions in Class I mortar:				
189	2	One brick walls to match existing.	m2			Rate only.
189	3	One and half brick walls to match existing.	m2			Rate only.
189		SUPERSTRUCTURE				
189		Brickwork of NFP bricks (14 MPa nominal compressive strength) in				
189		Class II mortar:				
189	4	One brick walls.	m2	49	R	-
189	5	Mass brick steps size 720mm wide with 245mm risers and 220mm				
189		treads.	m3	1	R	-
189	6	Mass brick steps size 720mm wide with 245mm risers and 220mm				
189		treads.	m3	1		Rate only.
189	7	Mass brick steps size 813mm wide with 182mm risers and 300mm				
189		treads.	m3	1	R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
193		SECTION NO. 2: GUARD HOUSES				
193		BILL NO. 6				
193		ROOF COVERINGS, ETC.				
193		PROFILED METAL SHEETING AND ACCESSORIES				
193		PROFILED METAL SHEETING Corrugated roof sheeting and accessories to match existing				
193		0.58mm Corrugated galvanised sheet steel fixed to timber purlins or rails				
193	1	Roof covering with pitch not exceeding 25 degrees with side laps seam stitched (Provisional).	m2	14	R	-
193	2	Ridge / hip capping 450mm girth.	m	14	R	-
193		Existing profiled metal sheeting				
193	3	Take from store and install roof covering with pitch not exceeding 25 degrees.	m2	14	R	-
193	4	Take from store and install ridge / hip capping 450mm girth.	m	14	R	-
					R	-
194		SECTION NO. 2: GUARD HOUSES				
194		BILL NO.7				
194		CARPENTRY AND JOINERY				
194		SUPPLEMENTARY PREAMBLES				
194		Particle board:				
194		Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type				
194		Joinery:				
194		Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc				
194		Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
194		Fixing				
194		Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
194		Decorative laminate finish:				
194		Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish				
194		ROOFS ETC				
194		Plate nailed timber roof truss construction				
194		The following is applicable in respect of roof trusses:				
194		S.A. Pine prefabricated truss system with corrugated roof covering (elsewhere) to building approximate size 5m ² overall on plan, designed in accordance with International Truss Systems (ITC) and manufactured in accordance with ITC all conforming to the relevant SABS Codes of Practise, tie beam varying sizes , with pitch of 17°, including all relevant bracing, hips and valley-sets, etc.- South East				
195	1	Guard House (Provisional).	Item	1	R	-
195	2	S.A. Pine prefabricated truss system with corrugated roof covering (elsewhere) to building approximate size 8m ² overall on plan, designed in accordance with International Truss Systems (ITC) and manufactured in accordance with ITC all conforming to the relevant SABS Codes of Practise, tie beam varying sizes , with pitch of 17°, including all relevant bracing, hips and valley-sets, etc. - North East	Item	1	R	-
195		Guard House (Provisional).				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
200		SECTION NO. 2: GUARD HOUSES				
200		BILL NO. 11				
200		PLUMBING AND DRAINAGE (PROVISIONAL)				
200		RAINWATER DISPOSAL (PROVISIONAL):				
200		0.8 mm Galvanised sheet iron with Colomet finish one side:				
		150 x 125 x 150mm High eaves gutter fixed to falls in continuous				
		lengths at not exceeding 600mm centres with and including approved				
200	1	gutter brackets.	m	20		R -
200	2	Extra over eaves gutter for internal or external angle.	No	8		R -
200	3	Extra over eaves gutter for outlet for 100 x 75mm pipe.	No	3		R -
		100 x 75mm Rainwater pipes fixed to walls with and including				
200	4	approved holderbats at 900mm centres.	m	16		R -
200	5	Extra over rainwater pipe for bend.	No	3		R -
200	6	Extra over rainwater pipe for shoe.	No	3		R -
						R -
201		SECTION NO. 2: GUARD HOUSES				
201		BILL NO. 12				
201		GLAZING				
201		GLAZING TO STEEL WITH PUTTY				
201		4mm Clear sheet glass:				
201	1	Panes exceeding 0.1m ² and not exceeding 0.5m ² .	m2	5		R -
						R -
202		SECTION NO. 2: GUARD HOUSES				
202		BILL NO. 13				
202		PAINTWORK				
202		PREPARATORY WORK TO EXISTING WORK				
202		Previously painted plastered surfaces				
		Surfaces shall be thoroughly washed down and allowed to dry				
		completely before any paint is applied. Blistered or peeling paint shall				
		be completely removed and cracks shall be opened, filled with a				
		suitable filler and finished smooth				
202		Previously painted metal surfaces				
		Surfaces shall be thoroughly rubbed and cleaned down. Blistered or				
		peeling paint shall be completely removed down to bare metal				
202		Previously painted wood surfaces				
		Surfaces shall be thoroughly cleaned down. Blistered or peeling paint				
		shall be completely removed and cracks and crevices shall be primed,				
		filled with suitable filler and finished smooth				
202		PAINTWORK ETC TO PREVIOUSLY PAINTED WORK				
202		ON METAL				
		Prepare, touch up, apply bonding primer and apply two coats enamel				
		paint				
202	1	Repaint existing steel window frames, colour to match existing.	m2	18		R -
		Repaint existing galvanised steel roofing sheets, colour to match				
		existing. .	m2	23		R -
202	2					
203	3	Repaint existing gutters and down pipes, colour to match existing.	m	48		R -
203		ON PLASTERED SURFACES				
		Prepare and apply one bonding coat and paint with two coats				
		premium quality pure acrylic PVA on:				
203	4	Interior floated walls.	m2	54		R -
203	5	Exterior floated walls.	m2	42		R -
203		ON FAIR FACED BRICKWORK				
		Two coats solvent based UV resistant clear gloss acrylic brick dressing				
		on:				
203	6	Walls.	m2	21		R -
203		ON WOOD				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
203		Prepare, touch up, apply bonding primer and apply two coats enamel paint				
203	7	General surfaces of roof timbers.	m2	26		R -
203		PAINTWORK ETC TO NEW WORK				
203		ON PLASTERED SURFACES				
203		Prepare and apply one undercoat and paint with two coats premium quality pure acrylic PVA on:				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
203	8	Interior textured walls.	m2	13		R -
203	9	Exterior textured walls.	m2	16		R -
203	10	Interior floated walls.	m2	19		R -
203	11	Exterior floated walls.	m2	30		R -
203		ON METAL				
		Clean down, prepare, touch up manufacturers priming coat, apply one undercoat and finish with two coats superior quality enamel on:				
204	12	Pressed steel windows (both sides measured).	m2	10		R -
204	13	100 x 125mm Eaves gutter.	m	20		R -
204	14	100 x 75mm Down pipes.	m	13		R -
		Clean down, prepare, apply one coat galvanised iron primer and finish with two coats superior quality enamel on:				
204	15	Roof coverings, colour to match existing.	m2	14		R -
						R -
		Section Summary				
206	1	DEMOLITIONS AND ALTERATIONS	Page	179		R -
206	2	EARTHWORKS	Page	183		R -
206	3	CONCRETE, FORMWORK AND REINFORCEMENT	Page	187		R -
206	4	MASONRY	Page	191		R -
206	5	WATERPROOFING	Page	192		R -
206	6	ROOF COVERINGS	Page	193		R -
206	7	CARPENTRY AND JOINERY	Page	196		R -
206	8	IRONMONGERY	Page	197		R -
206	9	METALWORK	Page	198		R -
206	10	PLASTERING	Page	199		R -
206	11	PLUMBING & DRAINAGE	Page	200		R -
206	12	GLAZING	Page	201		R -
206	13	PAINTWORK	Page	205		R -
		Carried to Final Summary				R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
207		SECTION NO. 3: RETAINING WALLS				
207		BILL NO. 1				
207		DEMOLITIONS AND ALTERATIONS				
207		REMOVAL OF EXISTING WORK				
207		Removing fencing, etc.				
207		Carefully remove existing barbed wire fencing approximate size 2m				
207	1	high and set aside for re-use.	m	37		R -
207	2	Remove existing diamond mesh fencing and cart away	m2	215		R -
207		Breaking up and removing stone facade				
207		Carefully demolish stone facade from the top down in sections of 1				
207	3	metre and set aside for re-use (measured on face).	m2	296		R -
207		Breaking up and removing screed, plaster, pavings, etc.				
207	4	Precast concrete pavers and set aside for re-use.	m2	98		R -
207		Break down existing brick walls including all steel door and window				
207		frames and cart away debris				
207	5	400mm Thick dwarf brick wall in superstructure.	m2	20		R -
207	6	400mm Thick dwarf brick wall in foundations.	m2	10		R -
207		Protection and relocation of existing services				
207		Allow for protection / relocation of existing gas bottle cage and gas				
207	7	cylinders for the duration for the duration of the contract.	No	1		R -
207		Allow for protection / relocation of existing air conditioning units for				
207	8	the duration for the duration of the contract.	No	3		R -
						R -
208		SECTION NO. 3: RETAINING WALLS				
208		BILL NO. 2				
208		EARTHWORKS (PROVISIONAL)				
208		SUPPLEMENTARY PREAMBLES				
208		Nature of ground				
208		Use "assumed to be" if no trial holes, soils investigations, etc have				
208		been carried out - discuss with engineer. Use "Trial holes indicate				
208		that" where the ground has been investigated by means of trial holes				
208		Nature of ground				
208		A soils investigation has been carried out on site by the engineer and				
208		the report is annexed to these bills of quantities. Descriptions of				
208		excavations shall be deemed to include all ground conditions				
208		classifiable as "earth" described in the above report and where				
208		conditions of a more difficult character are indicated these are				
208		separately measured				
208		Carting away of excavated material				
208		Descriptions of carting away of excavated material shall be deemed to				
208		include loading excavated material onto trucks directly from the				
208		excavations or, alternatively, from stock piles situated on the building				
208		site				
208		SITE CLEARANCE ETC				
208		Site clearance				
208	1	Stripping average 150mm thick layer of top soil and stockpiling on site.	m2	296		R -
208	2	Digging up and removing rubbish, debris, vegetation, hedges, shrubs	m2	296		R -
209		and trees not exceeding 200mm girth, bush, etc.				
209		BULK EXCAVATION, FILLING, ETC				
209		Excavation in earth over sloping site not exceeding 2m deep				
209	3	Open face excavation.	m3	1654		R -
209	4	For retaining walls foundations.	m3	827		R -
209		Excavation in earth over sloping site exceeding 2m and not exceeding				
209		4m deep				
209	5	For retaining walls foundations.	m3	827		R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
209		Extra over bulk excavation in earth for excavation in				
209	6	Soft rock.	m3	331	R	-
209	7	Hard rock.	m3	165	R	-
209		Extra over bulk excavation in earth for breaking up and removing				
209	8	Unreinforced concrete	m3	3	R	-
209	9	Reinforced concrete.	m3	32	R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
209		EXCAVATION, FILLING, ETC				
209		Extra over all excavations for carting away:				
209	10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	744	R	-
209		Risk of collapse of excavations:				
209	11	Sides of trench and hole excavations not exceeding 1,5m deep.	m2	56	R	-
209	12	Sides of trench and hole excavations exceeding 1,5m deep.	m2	241	R	-
209		Keeping excavations free of water:				
209	13	Keeping excavations free of all water other than subterranean water.	Item	1	R	-
210		EARTH FILLING, ETC.				
		Earth filling of G7 quality material obtained from the excavations and / or prescribed stock piles on site compacted to 95% Mod. AASHTO density:				
210	14	Backfilling behind retaining walls.	m3	2392	R	-
		Earth filling of G5 quality material supplied by the contractor compacted to 95% Mod AASHTO density:				
210	15	Backfilling behind retaining walls.	m3	519	R	-
		Filling of natural G4 gravel material supplied by the contractor, compacted to 90% Mod AASHTO density				
210	16	Backfilling behind retaining walls.	m3	356	R	-
		Selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lightly consolidated				
210	17	In landscape mounds, berms, etc	m3	18	R	-
		Selected topsoil filling supplied by the contractor, lightly consolidated				
210	18	In landscape mounds, berms, etc	m3	48	R	-
		Prescribed density tests on filling:				
		Allow for compaction tests by an approved laboratory to determine density of filling material.				
210	19		No	3	R	-
					R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
212		SECTION NO. 3: RETAINING WALLS				
212		BILL NO. 3				
212		CONCRETE, FORMWORK AND REINFORCEMENT				
212		SUPPLEMENTARY PREAMBLES				
212		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 architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)				
212		Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated				
212		"Foamcement " lightweight concrete				
		"Foamcement" lightweight concrete is to have a density of 600kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm				
212		"Celbeton" lightweight concrete				
212		"Celbeton" lightweight concrete is to have a density of 1000kg/m3 for the top 20mm and 480kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 30mm				
213		Formwork				
		Description 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				
213		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.				
213		Formworks to soffits of solid etc shall be deemed to be 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"				
213		FOUNDATIONS (PROVISIONAL)				
213		UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
213		25MPa/20mm concrete:				
213	1	Footings to walls (Provisional).	m3	32		R -
213		REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
213		25MPa/20mm concrete:				
213	2	Bases, etc (Provisional).	m3	111		R -
213		REINFORCED CONCRETE				
214		25MPa/20mm concrete:				
214	3	Walls.	m3	159		R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
214		TEST CUBES				
		Making and testing set of three 150x150x150mm concrete strength				
214	4	test cubes (Provisional).	No	32		R -
214		CONCRETE SUNDRIES				
		Sandblasting of concrete surfaces to expose aggregate				
214	5	Sides of existing columns.	m2	23		R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
214		Cement work of 1:3 liquid cement and sand mixture applied with a brush				
214	6	Sides of existing columns.	m2	23		R -
214		ROUGH FORMWORK (DEGREE OF ACCURACY III)				
214		Rough Formwork to Sides				
214	7	Walls not exceeding 3.5m bearing level, sloping.	m2	278		R -
214	8	Walls exceeding 3.5m but not exceeding 5m bearing level, sloping.	m2	119		R -
214	9	Walls exceeding 5m but not exceeding 6.5m bearing level, sloping.	m2	119		R -
214	10	Walls exceeding 6.5m but not exceeding 8m bearing level, sloping.	m2	119		R -
214	11	Walls exceeding 8m but not exceeding 9.5m bearing level, sloping.	m2	43		R -
214		MOVEMENT JOINTS ETC				
214		Expansion joints with bitumen filler board between vertical concrete surfaces				
214	12	10mm Joints exceeding 300mm high.	m2	33		R -
215		SUNDRIES				
215		Openings, etc				
215	13	Form or leave holes for 110mm pipes through concrete walls approximately 1.8m thick.	No	41		R -
215		Weep holes, etc.				
215		Class 34 uPVC piping:				
215	14	110mm Diameter pipes.	m	160		R -
215		REINFORCEMENT (PROVISIONAL)				
215		High tensile steel reinforcement to structural concrete work				
215	15	32mm Diameter bars.	t	27,07		R -
215	16	25mm Diameter bars.	t	3,32		R -
215	17	16mm Diameter bars.	t	12,32		R -
215		Mild steel reinforcement to structural concrete work				
215	18	10mm Diameter bars.	t	0,33		R -
215		ANCHORING, ETC				
215		Anchoring to retaining walls				
215	19	Allow the amount of R300,000.00 for anchors to engineer's specification executed complete.	Item	1		R -
						R -
217		SECTION NO. 3: RETAINING WALLS				
217		BILL NO. 4				
217		PRECAST CONCRETE				
217		PREAMBLES				
217		"Note for preambles see "Specification of materials and methods to be used - General Specification for building contracts standard conditions". (GP ASC Rev 0).				
217		SUPPLEMENTARY PREAMBLES				
217		Sizes:				
217		Blocks, sills, etc measured linear shall be made in suitable lengths.				
217		Large size setting out drawings shall be prepared where necessary and submitted to the architect for approval before moulds are made				
217		General:				
217		Where kerbstones, blocks, etc are laid in ground descriptions shall be deemed to include necessary excavation, filling in and ramming				
217		PAVERS				
217		Pavers to match existing laid on 25mm thick river sand bed including preparation of ground or filling				
217	1	Take from store and re-lay concrete pavers to match existing.	m2	98		R -
217		Supply and fix				
217	2	Concrete pavers size 195 x 155 x 50mm thick (Provisional).	m2	98		Rate only.
						R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
218		SECTION NO. 3: RETAINING WALLS				
218		BILL NO. 5				
218		MASONRY				
218		SUPPLEMENTARY PREAMBLES				
218		BRICKWORK				
218		Sizes in descriptions				
218		Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
218		Hollow walls etc				
218		Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.				
218		Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixéal" bitumen emulsion waterproofing coating.				
218		User note:				
218		The above preamble generally applies for works in hot and humid coastal areas				
218		Face bricks				
218		Bricks shall be ordered timeously to obtain uniformity in size and colour				
218		Pointing				
218		Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
219		FOUNDATIONS (PROVISIONAL)				
219		Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
219	1	Two brick dwarf walls.	m2	10		R -
219		SUPERSTRUCTURE				
219		Brickwork of NFP bricks (14 MPa nominal compressive strength) in Class II mortar:				
219	2	Two brick dwarf walls.	m2	20		R -
219		Brickwork reinforcement				
219	3	Reinforcement to suit two brick walls built in horizontally.	m	120		R -
219	4	Ditto, but in foundations (Provisional).	m	57		R -
219		STONEMWORK				
219		Stone wall linings to match existing				
219	5	Take from store and re-lay stone façade to match existing, including bonding with cement and grouting where necessary.	m2	296		R -
219	6	Stone façade to match existing supplied by the contractor, including bonding with cement and grouting where necessary.	m2			Rate only.
						R -
221		SECTION NO. 3: RETAINING WALLS				
221		BILL NO. 6				
221		METALWORK				
221		SUPPLEMENTARY PREAMBLES				
221		Descriptions				
221		Descriptions of bolts shall be deemed to include nuts and washers				
221		Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
221		Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
221		FENCING				
221		Barbed wire fencing				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
221	1	Take from store and re-lay barbed wire fencing approximate size 2m high to match existing including posts, bases, excavations, backfilling, compaction, etc.	m	37		R -
221	2	Barbed wire fencing supplied by the contractor approximate size 2m high to match existing including posts, bases, excavations, backfilling, compaction, etc.	m	37		Rate only. R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
222		SECTION NO. 3: RETAINING WALLS				
222		BILL NO. 7				
222		PLASTERING				
222		EXTERNAL PLASTER				
222		Cement plaster on brickwork:				
222	1	On walls.	m2	37		R -
						R -
		Section Summary				
223	1	DEMOLITIONS AND ALTERATIONS	Page	207		R -
223	2	EARTHWORKS	Page	211		R -
223	3	CONCRETE, FORMWORK AND REINFORCEMENT	Page	216		R -
223	4	PRECAST CONCRETE	Page	217		R -
223	5	MASONRY	Page	220		R -
223	6	METALWORK	Page	221		R -
223	7	PLASTERING	Page	222		R -
		Carried to Final Summary				R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
224		SECTION NO. 4: WATERPROOFING				
224		BILL NO. 1				
224		DEMOLITIONS AND ALTERATIONS				
224		REMOVAL OF EXISTING WORK				
		Hacking up/off and removing concrete surface bed, tarmac, screeds, plaster, etc and preparing surfaces for new concrete surface bed, tarmac, screeds, plaster, etc				
224	1	Waterproofing membrane and cart away.	m2	440		R -
		50mm Screed from concrete roof, cart away debris and prepare surface to receive new screed (elsewhere measured).				
224	2		m2	440		R -
224		PROPPING UP				
224		Propping to existing surfaces				
		Propping up vaulted walls propped to a height exceeding 1.5m and not exceeding 3.5m.				
224	3		m2	440		R -
224		CRACK REPAIRS				
224		Repairs to existing cracks				
		Allow the sum of R60,000.00 for crack repairs to engineer's specifications				
224	4		Item	1		R -
						R -
225		SECTION NO. 4: WATERPROOFING				
225		BILL NO. 2				
225		EARTHWORKS (PROVISIONAL)				
225		SUPPLEMENTARY PREAMBLES				
225		Nature of ground				
		Use "assumed to be" if no trial holes, soils investigations, etc have been carried out - discuss with engineer. Use "Trial holes indicate that" where the ground has been investigated by means of trial holes				
225		Nature of ground				
		A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured				
225		Carting away of excavated material				
		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				
225		SITE CLEARANCE ETC				
225		Site clearance				
225	1	Stripping average 150mm thick layer of top soil and stockpiling on site.	m2	440		R -
		Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.				
225	2		m2	440		R -
226		EXCAVATION, FILLING, ETC				
226		Excavation in earth not exceeding 2m deep:				
226	3	Open face excavation by hand.	m3	880		R -
226		Excavation in earth exceeding 2m and not exceeding 4m deep:				
226	4	Open face excavation by hand.	m3	880		R -
226		Excavation in earth exceeding 4m and not exceeding 6m deep:				
226	5	Open face excavation by hand.	m3	880		R -
226		Extra over trench and hole excavations in earth for excavation in:				
226	6	Soft rock.	m3	26		R -
226		Extra over all excavations for carting away:				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
226	7	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	2640		R -
226		Risk of collapse of excavations:				
226	8	Sides of trench and hole excavations not exceeding 1,5m deep.	m2	213		R -
226	9	Sides of trench and hole excavations exceeding 1,5m deep.	m2	639		R -
226		Keeping excavations free of water:				

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
226	10	Keeping excavations free of all water other than subterranean water.	Item	1		R -
226		EARTH FILLING, ETC.				
226		Earth filling of 1:4 cement and G5 quality material imported from commercial sources compacted to 95% Mod. AASHTO density:				
226	11	Under solid floors in 150mm layers.	m3	440		R -
227		Earth filling of G5 quality material supplied by the contractor compacted to 95% Mod AASHTO density:				
227	12	Under floors, steps, pavings, etc.	m3	2200		R -
227		Selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lightly consolidated				
227	13	In landscape mounds, berms, etc	m3	66		R -
227		Compaction of surfaces				
227		Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density.	m2	440		R -
227		Prescribed density tests on filling:				
227		Allow for compaction tests by an approved laboratory to determine density of filling material.	No	10		R -
						R -
229		SECTION NO. 4: WATERPROOFING				
229		BILL NO. 3				
229		WATERPROOFING				
229		SUPPLEMENTARY PREAMBLES				
229		Waterproofing				
		Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
229		WATERPROOFING TO ROOFS, BASEMENTS, ETC				
229		One coat acrylic based bituminous primer to screed (elsewhere measured) as per manufacturer's specification.				
229	1	On concrete roofs.	m2	440		R -
229		4mm "Derbigum SP" waterproofing or equally approved membrane				
229	2	On concrete roofs.	m2	440		R -
229		Additional membrane 450mm girth at turn-ups including flashing strip				
229	3	250mm girth and sealing top edge into groove with mastic.	m	57		R -
229	4	Collar around pipe not exceeding 110mm internal diameter.	No	2		R -
						R -
230		SECTION NO. 4: WATERPROOFING				
230		BILL NO. 4				
230		PLASTERING				
230		SCREEDS				
230	1	50mm Average on floors.	m2	440		R -
						R -
231	1	Section Summary DEMOLITIONS AND ALTERATIONS	Page	224		R -
231	2	EARTHWORKS	Page	228		R -
231	3	WATERPROOFING	Page	229		R -
231	4	PLASTERING	Page	230		R -
		Carried to Final Summary				R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
234		SECTION NO. 5: WATER TOWERS				
234		BILL NO. 3				
234		PAINTWORK				
234		PREPARATORY WORK TO EXISTING WORK				
234		Previously painted plastered surfaces				
		Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
234		Previously painted metal surfaces				
		Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal				
234		Previously painted wood surfaces				
		Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
234		PAINTWORK ETC TO PREVIOUSLY PAINTED WORK				
234		ON METAL				
		Clean down, remove all rust by means of rust solvent, prepare, apply one anti rust coat and finish with two coats superior quality silver aluminium paint on:				
234		aluminium paint on:				
234	1	Exterior surfaces of water towers.	m2	184		R -
234	2	Corrugated iron sheets.	m2	124		R -
235	3	General surfaces of steel members.	m2	233		R -
235	4	General surfaces of steel members girth not exceeding 300mm.	m	48		R -
235		PAINTWORK ETC TO NEW WORK				
		Clean down, prepare, apply one bonding coat and finish with two coats superior quality silver aluminium paint on:				
235		superior quality silver aluminium paint on:				
235	5	Corrugated iron sheets (Provisional).	m2	124		Rate only.
						R -
		Section Summary				
237	1	DEMOLITIONS AND ALTERATIONS	Page	232		R -
237	2	METALWORK	Page	233		R -
237	3	PAINTWORK	Page	236		R -
		Carried to Final Summary				R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
238		SECTION NO. 6: GENERAL				
238		BILL NO. 1				
238		INTERNAL FACADES OF THE RAMPART ROOMS				
238		REMOVAL OF EXISTING WORK				
		Hacking up/off and removing concrete surface bed, tarmac, screeds, plaster, etc and preparing surfaces for new concrete surface bed, tarmac, screeds, plaster, etc				
238		External plaster to walls and prepare to receive new plaster (elsewhere measured)	m2	147	R	-
238	1	MAKING GOOD OF FINISHES ETC				
238		Making good brickwork				
		Filling in holes to faces of walls approximate size 200 x 100mm and patching up surfaces to receive plaster (elsewhere measured).	No	34	R	-
238	2	EXTERNAL PLASTER				
238		Cement plaster on brickwork:				
238	3	On walls.	m2	147	R	-
238		PAINTWORK ETC TO NEW WORK				
238		ON PLASTERED SURFACES				
		Prepare and apply one undercoat and paint with two coats premium quality pure acrylic PVA on:				
238	4	Exterior walls.	m2	147	R	-
238		PAINTWORK ETC TO PREVIOUSLY PAINTED WORK				
239		ON METAL				
		Prepare, touch up, apply bonding primer and apply two coats enamel paint				
239	5	Repaint existing steel window frames, colour to match existing.	m2	8	R	-
239		ON WOOD				
		Prepare, touch up, apply bonding primer and apply two coats enamel paint				
239	6	General surfaces of doors.	m2	8	R	-
239	7	General surfaces of burglar bars.	m2	15	R	-
					R	-
241		SECTION NO. 6: GENERAL				
241		BILL NO. 2				
241		HISTORIC WIRE FENCES				
241		REMOVAL OF EXISTING WORK				
241		Removing fencing, etc.				
		Carefully remove existing barbed wire fencing approximate size 2.6m high and set aside for re-use.	m	72	R	-
241	1	Carefully remove existing barbed wire fencing approximate size 1.2m high and set aside for re-use.	m	34	R	-
241	2	FENCING				
241		Barbed wire fencing				
		Take from store and re-lay barbed wire fencing approximate size 1.2m high to match existing including posts, bases, excavations, backfilling, compaction, etc.	m	34	R	-
241	3	Take from store and re-lay barbed wire fencing approximate size 2.6m high to match existing including posts, bases, excavations, backfilling, compaction, etc.	m	72	R	-
241	4	Supply and fix				
		Barbed wire fencing size 1.2m high to match existing including posts, bases, excavations, backfilling, compaction, etc (Provisional).	m	34		Rate only.
241	5	Barbed wire fencing approximate size 2m high to match existing including posts, bases, excavations, backfilling, compaction, etc (Provisional).	m	72		Rate only.
241	6				R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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**WORK TO THE EXISTING RAMPART BUILDINGS AND SURROUNDING WALLS
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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
242		SECTION NO. 6: GENERAL				
242		BILL NO. 3				
242		PAVED RAMPART PATHWAY				
242		REMOVAL OF EXISTING WORK				
242		Breaking up and removing of concrete paving, etc.				
242	1	Carefully remove precast concrete pavers and set aside for re-use.	m2	663	R	-
242		Carefully remove precast concrete kerbs and set aside for re-use				
242	2	including necessary excavation and concrete bases.	m	742	R	-
242		EXCAVATION, FILLING, ETC				
242		Excavation in earth not exceeding 2m deep:				
242	3	Reduced levels under floors.	m3	199	R	-
242		Extra over trench and hole excavations in earth for excavation in:				
242	4	Soft rock.	m3	20	R	-
242	5	Hard rock.	m3	10	R	-
242		Extra over all excavations for carting away:				
242		Surplus material from excavations and/or stock piles on site to a				
242	6	dumping site to be located by the contractor.	m3	66	R	-
242		EARTH FILLING, ETC.				
242		Earth filling of G5 quality material supplied by the contractor				
242		compacted to 95% Mod AASHTO density:				
242	7	Under floors, steps, pavings, etc.	m3	66	R	-
243		Compaction of surfaces				
243		Compaction of ground surface under floors etc including scarifying for				
243		a depth of 150mm, breaking down oversize material, adding suitable				
243		material where necessary and compacting to 93% Mod AASHTO				
243	8	density.	m2	663	R	-
243		Prescribed density tests on filling:				
243		Allow for compaction tests by an approved laboratory to determine				
243	9	density of filling material.	No	10	R	-
243		PAVERS				
243		Slab paving to match existing laid on 25mm thick river sand bed				
243		including preparation of ground or filling				
243	10	Take from store and re-lay concrete pavers.	m2	663	R	-
243		Supply and fix				
243	11	Concrete pavers size 195 x 155 x 50mm thick.	m2	165	R	-
243		KERBING				
243		70 x 300mm Half-battered concrete kerb jointed and pointed in 4:1				
243		cement mortar and bedded in 15mpa concrete including all necessary				
243		excavation, backfilling, carting away, continuous concrete haunching				
243		on curves, concrete haunching at joints on straights, etc.:				
243	12	On straight, kerbing obtained from store.	m	712	R	-
243	13	On radius not exceeding 4m, kerbing obtained from store.	m	30	R	-
243		Supply and fix				
243	14	On straight (Provisional).	m	8		Rate only.
243	15	On radius not exceeding 4m, (Provisional).	m	4		Rate only.
					R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
245		SECTION NO. 6: GENERAL				
245		BILL NO. 4				
245		VENT PIPES				
245		REMOVAL OF EXISTING WORK				
245		Carefully take out and remove steel pipe fittings from pipes to remain				
245	1	Steel covers / caps approximate size 150mm diameter and 500mm long and cart away.	No	2	R	-
245		METALWORK				
245		Steel vent pipe covers				
245		Steel vent pipe covers / caps to match existng				
245	2	Steel covers / caps approximate size 150mm diameter and 500mm long to Architect's specification fixed to existing steel pipes.	No	2	R	-
245		PREPARATORY WORK TO EXISTING WORK				
245		PAINTWORK ETC TO PREVIOUSLY PAINTED WORK				
245		ON METAL				
245		Clean down, prepare, apply one bonding coat and finish with two coats superior quality enamel on:				
245	3	Vent pipes not exceeding 300mm girth.	m	3	R	-
245		PAINTWORK ETC TO NEW WORK				
245		ON METAL				
246		Clean down, prepare, touch up manufacturers priming coat, apply one undercoat and finish with two coats superior quality enamel on:				
246	4	Steel covers / caps approximate size 150mm diameter and 500mm long.	No	2	R	-
					R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
248		SECTION NO. 6: GENERAL				
248		BILL NO. 5				
248		VENT SHAFTS				
248		REMOVAL OF EXISTING WORK				
		Taking out and removing ceilings, roofing, panelling, etc, cart away rubble and prepare to receive new				
248	1	Existing poly translucent sheeting and cart away.	m2	24	R	-
248		EXCAVATION, FILLING, ETC				
248		Excavation in earth not exceeding 2m deep:				
248	2	Reduced levels under floors.	m3	3	R	-
248		Extra over all excavations for carting away:				
248	3	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	3	R	-
248		EARTH FILLING, ETC.				
		Earth filling of G5 quality material supplied by the contractor compacted to 95% Mod AASHTO density:				
248	4	Under floors, steps, pavings, etc.	m3	3	R	-
248		Compaction of surfaces				
		Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density.				
248	5	Prescribed density tests on filling:	m2	23	R	-
248		Allow for compaction tests by an approved laboratory to determine density of filling material.	No	3	R	-
249		PAVERS				
		Slab paving laid on 25mm thick river sand bed including preparation of ground or filling				
249	7	60mm Thick interlocking concrete pavers.	m2	23	R	-
249		PROFILED POLY CARBONATE SHEETING				
249		0.58mm IBR poly carbonate translucent sheeting				
249	8	Sheeting to match existing fixed to Architect's specifications.	m2	24	R	-
249		PROFILED METAL SHEETING				
		0.58mm Corrugated galvanised sheet steel fixed to timber/steel purlins or rails				
249		Flashing 450mm girth three times bend to detail and fixed to Architect's specifications.	m	52	R	-
249		Screws, etc.				
249	10	Allow the sum of R10,000.00 for replacing missing and rusted screws on existing sheeting.	Item	1	R	-
					R	-

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
251		SECTION NO. 6: GENERAL				
251		BILL NO. 6				
251		LANDSCAPING				
251		SITE CLEARANCE ETC				
251		Site clearance				
251	1	Stripping average 150mm thick layer of top soil and stockpiling on site.	m2	22		R -
251	2	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	22		R -
251		Selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lightly consolidated				
251	3	In landscape mounds, berms, etc	m3	2		R -
251		Selected topsoil filling supplied by the contractor, lightly consolidated				
251	4	In landscape mounds, berms, etc	m3	2		R -
251		Prescribed density tests on filling:				
251	5	Allow for compaction tests by an approved laboratory to determine density of filling material.	No	2		R -
						R -
		Section Summary				
252	1	INTERNAL FACADES OF THE RAMPART ROOMS	Page	240		R -
252	2	HISTORIC WIRE FENCES	Page	241		R -
252	3	PAVED RAMPART PATHWAY	Page	244		R -
252	4	VENT PIPES	Page	247		R -
252	5	VENT SHAFTS	Page	250		R -
252	6	LANDSCAPING	Page	251		R -
		Carried to Final Summary				R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
253		SECTION NO. 7: PROVISIONAL SUMS				
253		BILL NO. 1				
253		PROVISIONAL SUMS				
253		NOMINATED SUB-CONTRACTS				
		The following Provisional Amounts are for work to be done by firms of specialists and will be regarded as Nominated Sub-contractors to the Contractor. The Contractor must obtain quotations from approved firms and submit them to the Agent/Representative for his approval.				
253		CASH DISCOUNT				
253		No cash discount. All provisional sums are "NET".				
253		ATTENDANCE				
		Without in any way limiting the meaning and interpretation, "general attendance" on sub-contractors shall include free of charge to the sub-contractor the following services for the purpose of the relative sub-contract works:				
253		1) access to the site and to the places where the work is to be carried out, including the use of any temporary personnel hoists erected by the Contractor for his own use;				
253		2) the provision of water and lighting and of single and/or three phase electric power to a position within 50 metres of the place where work is to be carried out, but excluding water, fuel and power for commissioning of the installation for which the Contractor shall be responsible;				
253		3) the provision of an area for office accommodation, temporary workshops and for the storage of plant and materials;				
253		4) the use of erected scaffolding belonging to the Contractor, in common with others having the like right whilst it so remains erected upon the site;				
254		5) the use of messrooms, latrine, health and welfare facilities, and the like, where provided;				
254		6) the use of the site telephone (if provided) subject to the payment by the sub-contractor for all his outgoing calls;				
254		7) temporary casing and/or other protection of the work;				
254		8) site security measures;				
254		9) hoisting of the sub-contractor's material in loads not exceeding 500 kg;				
254		10) making good in all trades and final cleaning down on completion.				
254		FUEL, POWER AND WATER FOR COMMISSIONING PLANT				
		The cost of fuel, power and water for the commissioning of plant shall be borne by the sub-contractor appointed for the relevant sub-contract works in terms of the conditions under which they have/are contract for the specialist work involved. The contractor shall allow opposite this item or under the relevant attendance items for the recovery of such costs via the installation of the necessary metres, etc.				
254		COMMUNITY LIAISON OFFICER				
		Provide the Amount of R 45,000.00 (Forty-Five Thousand Rand) for Community Liaison Officer to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required				
254	1		Item	1		R -
254	2	Allow for profit	%IT	5%		R -
254	3	Allow for attendance	%IT	5%		R -
		Carried to Final Summary				R -

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PAGE NO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
256	FINAL SUMMARY					
	1	PRELIMINARIES	Page	173		R -
	2	GUARD HOUSES	Page	206		R -
	3	RETAINING WALLS	Page	223		R -
	4	WATERPROOFING	Page	231		R -
	5	WATER TOWERS	Page	237		R -
	6	GENERAL	Page	252		R -
	7	PROVISIONAL SUMS	Page	254		R -
		Subtotal				R -
		Contingencies @ 10%			10%	R -
	Subtotal				R -	
	ADD: Value added Tax at 15%			15%	R -	
	TOTAL CARRIED TO FORM OF TENDER					R -