	Quantity	Rate	Amou
SECTION 1			
BILL 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			
Carried to Collection		R	
Bill No. 1 PRELIMINARIES			

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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 : 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			
Carried to Collection Bill No. 1	R		\dashv
PRELIMINARIES			

	Interpretation (A1-A7)		
1/1/1	Clause 1.0 - Definitions and interpretation		
	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		
	Bill No. 1 PRELIMINARIES	R	

IDT If the **contractor** 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 employer for the performance of this agreement 2. These persons shall notify the **employer** of their leader who has assigned authority to bind the contractor and each of these persons 3. The **contractor** shall not alter its composition or legal status without the prior written consent of the employer Clause 1.1: Replace the following definitions in **DEFINITIONS AND INTERPRETATIONS** with the following wording: AGREEMENT means the agreement arising from the signing of the Form of Offer and Acceptance by the parties. BILLS OF QUANTITIES means the document drawn up in accordance with the Pricing Instructions contained in the Pricing Data. **CONSTRUCTION PERIOD** means the period commencing on the date of site hand over and ending on the date of practical completion. **CONTRACT DOCUMENTS** means the Agreement and all documents referenced therein. **CONTRACT DRAWINGS** means the drawings listed in the Scope of Work. **CONTRACT SUM** means the total of prices in the Form of Offer and Acceptance. **SCHEDULE** means the variables listed in the Contract Data. **CORRUPT PRACTICE** means the offering, giving, receiving and soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. FRAUDULENT PRACTICE means a mispresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer, and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open **Carried to Collection** R Bill No. 1 **PRELIMINARIES**

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	competition.			
	INTEREST means the interest rates applicable to this			
	contract, whether specifically indicated in the relevant			
	clauses or not, will be the rate as determined by the			
	Minister of Finance, from time to time, in terms of			
	section 80(1)(b) of the Public Finance Management Act,			
	1999 (Act No. 1 of 1999).			
	SECURITY means the form of security provided by the			
	employer or contractor, as stated in the schedule,			
	from which the contractor or employer may recover			
	expense or loss.			
	Clause 1.1 Definition of "Commencement Date" is			
	added:			
	"COMMENCEMENT DATE" means the date that the			
	agreement, made in terms of the Form of Offer and			
	Acceptance, comes into effect.			
	Clause 1.1 Definition of "Guarantee for Construction" is			
	amended by replacing it with the following:			
	"GUARANTEE FOR CONSTRUCTION" means a			
	guarantee at call obtained by the contractor from an			
	· ·			
	institution approved by the employer in terms of the			
	employer's construction guarantee form as selected in			
	the schedule.			
	Clause 1.1 Definition of "Principal Agent" is amended by			
	replacing it with the following:			
	"PRINCIPAL AGENT" means the person or entity			
	appointed by the employer and named in the schedule.			
	In the event of a principal agent not being appointed,			
	then all the duties and obligations of a principal agent as			
	detailed in the agreement shall be fulfilled by a representative of the employer as named in the			
	schedule.			
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	F:V:			
	T:	Item		
1/1/2	Clause 2.0 - Law, regulations and notices			
	Ciaaco III III III III III III III III III I			
	F:V:			
	T:	Item		
1/1/3	Clause 3.0 - Offer and acceptance			
	F:V:			
	T:			
		Item		
	Carried to Collection		R	
	Bill No. 1			
	PRELIMINARIES			

1/1/4	Clause 4.0 - Cession and assignment			
	F:V: T:	Item		
1/1/5	Clause 5.0 - Documents			
	Value Added Tax			
	Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)			
	Clause 5.0 is amended by the addition of the following sub-clause 5.7:			
	The contractor shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site, to which the employer, principal agent and agents shall have access at all times.			
	F: T:	ltem		
1/1/6	Clause 6.0 - Employer's agents			
	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 : To be confirmed on appointment.			
	1. Architect			
	1.1 Duties [6.2] :			
	The architect is responsible for the architectural design, functional design and quality inspection of the works			
	2. Quantity surveyor			
	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			
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES			

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3. <u>Civil and structural engineer</u>			
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			
4. <u>Mechanical engineer</u>			
4.1 Duties [6.2] :			
The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions			
5. <u>Electrical engineer</u>			
5.1 Duties [6.2] :			
The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions			
8. <u>Health and safety consultant</u>			
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:			
8.1.1 Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act,1993 as amended			
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Carried to Collection		R	L
Bill No. 1 PRELIMINARIES			

	8.1.2 Prepare and update the health and safety specification for the works			
	8.1.3 Agree with the contractor the health and safety plan for the works			
	8.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations			
	8.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to.			
	F: T:	Item		
1/1/7	Clause 7.0 - Design responsibility			
	Clause 7.0 is deemed to be amended by adding the following new sub-clause 7.4: The Contractor shall promptly inform the Principal Agent of any patent defects or errors in any design. In identifying any patent defects or errors the Contractor shall use its best endeavours.			
	F: T:	Item		
		itein		
	Insurances and securities (A8-A11)			
1/1/8	Clause 8.0 - Works risk			
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES			

	Clause 8.0 is deemed to be amended by the addition of the new clause 8.8 and 8.9: 8.8 Unless specifically stated to the contrary, where trade names have been used in the tender documents to specify materials and goods, this has been done with the sole purpose of indicating the standard and quality required by the principal agent. The contractor shall be free to supply those of other manufacturers or suppliers provided that they match the standard and quality required. The onus shall be on the contractor to prove that the materials and goods supplied by him are of similar standard and quality to those specified. 8.9 The risks for loss or damage to the works resulting from such materials and goods and for latent defects in such materials and goods shall be that of the contractor, whether the materials and goods as specified or otherwise are supplied. Where it is specifically stated that no other trade name will be acceptable then the above-mentioned risks will remain with the employer.				
	F: T:	Item			
	1	Itom			
1/1/9	Clause 9.0 - Indemnities				
	F:V:				
	T:	Item			
1/1/10	Clause 10.0 - Insurances				
	Clause 10.0 is amended by the addition of the following clauses:				
	10.11 Damage to the Works				
	(a) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall				
	bear the full risk of damage to and/or destruction of the				
	works by whatever cause during construction of the				
	works and hereby indemnifies and holds harmless the				
	employer against any such damage. The contractor shall take such precautions and security measures and				
	other steps for the protection and security of the works				
	as the contractor may deem necessary.				
	(b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage				
	to or destruction of the works and to rebuild, restore,				
	replace and/or repair the works.				
	(c) Where the employer bears the risk in terms of this				
	Carried to Collection		R		
	Bill No. 1				=
	PRELIMINARIES				
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Bill No. 1 PRELIMINARIES		
Carried to Collection	R	
interference with the support until such portion of the		
such property consequent on such removal or		
against the death of or injury to persons or damage to		
or insured to the specific limit stated in the contract		
adequate insurance and will remain adequately insured		
to be altered or added to, the contractor shall obtain		
properties including land or structures or any structures		
removal of or interference with support to adjoining		
(e) Where the execution of the works involves the risk of		
practical completion		
executing the works until the issue of the certificate of		
under his control by the employer for the purpose of		
and safety of such portions of the premises placed		
(d) The contractor shall be responsible for the protection		
same from amounts due to the contractor		
the cost thereof from the contractor or to deduct the		
his own cost and in default thereof the employer shall be entitled to cause it to be made good and to recover		
be made good in a perfect and workmanlike manner at		
instruction from the principal agent, cause the same to		
(c) The contractor shall, upon receiving a contract		
employer is legally liable		
negligence of any person for whose actions the		
the execution of the works unless due to any act or		
person, arising out of or in the course of or by reason of		
under the control of the employer or any other body or		
property contiguous to the site, whether belonging to or		
any moveable or immovable or personal property or		
or proceeding consequent upon loss of or damage to		
indemnifies the employer against any liability, loss, claim		
(b) The contractor shall be liable for and hereby		
whose actions the employer is legally liable		
unless due to any act or negligence of any person for		
course of or caused by the execution of the works		
death of any person whomsoever arising out of or in the		
statute, consequent upon personal injuries to or the		
or proceeding whether arising in common law or by		
indemnifies the employer against any liability, loss, claim		
(a) The contractor shall be liable for and hereby		
Properties		
10.12 Injury to Persons or loss of or damage to		
and values in terms of states 25.5 heres!		
and valued in terms of clause 25.0 hereof		
reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured		

	works has been completed				
	(f) The contractor shall at all times proceed immediately				
	at his own cost to remove or dispose of any debris and				
	·				
	to rebuild, restore, replace and/or repair such property				
	and to execute the works				
	10.13 It is the responsibility of the contractor to ensure				
	that he has adequate insurance to cover his risk and				
	·				
	liability as mentioned in 10.11 and 10.12. Without				
	limiting the contractor's obligations in terms of the				
	contract, the contractor shall, within twenty-one (21)				
	calendar days of the commencement date but before				
	commencement of the works, submit to the employer				
	proof of such insurance policy, if requested to do so				
	proof of such insurance policy, if requested to do so				
	F:V:				
	T:	Item			
1/1/11	Clause 11.0 - Securities				
	Extension of waiver of lien				
	Extension of waiver of heli				
	The contractor shall ensure that a waiver of lieu is				
	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]				
	Clause 11.5 is amended by replacing it with the				
	following:				
	No clause				
	F: V:				
	T:	Item			
	Execution (A12 - A17)				
1/1/12	Clause 12.0 - Obligations of the parties				
	·				
	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]				
	Carried to Collection		R		
	Bill No. 1				
	PRELIMINARIES				
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	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]			
	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 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			
	Clause 12.1.1 is amended by replacing it with the following: No clause			
	Clause 12.2.2 is amended by replacing it with the following: No clause			
	F:			
	T:	Item		
1/1/13	Clause 13.0 - Setting out			
	F: T:	Item		
1/1/14	Clause 14.0 - Nominated subcontractors			
	Clause 14.1.5 is amended by replacing it with the following: No clause			
	Carried to Collection Bill No. 1		R	
	PRELIMINARIES			

	F: V: T:	Item		
1/1/15	Clause 15.0 - Selected subcontractors			
	F: T:	Item		
1/1/16	Clause 16.0 - Direct contractors			
	Not Applicable			
	F: T:	Item		
1/1/17	Clause 17.0 - Contract instructions			
	Site instructions			
	Instructions issued on site are to be recorded in a site instruction book (triplicate book) which is to be supplied and maintained on site by the contractor .			
	F: T:	Item		
	Completion (A18 - A24)			
1/1/18	Clause 18.0 - Interim completion			
	Not Applicable	N/A		
1/1/19	Clause 19.0 - Practical completion			
	F: T:	Item		
1/1/20	Clause 20.0 - Completion in sections			
	Not Applicable			
	F: T:	Item		
1/1/21	Clause 21.0 - Defects liability period and final completion			
	F: T:	Item		
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES			

1/1/22	Clause 22.0 - Latent defects liability period			
	F: T:	Item		
1/1/23	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]			
	Clause 23.1.1 is amended by adding the following "It shall be deemed that the programme includes an allowance of twenty (20) working days for inclement and exceptionally inclement weather and an extension of time shall only be considered for inclement weather beyond the twenty (20) working day period."			
	F: T:	Item		
1/1/24	Clause 24.0 - Penalty for late or non-completion			
	The penalty amount per calendar day is 1.75 cents per R100.00 of the contract value.			
	F: T:	Item		
	Payment (A25 - A27)			
1/1/25	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			
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES		K	

	Clause 25.10 is amended to Thirty (30) Calendar days instead of Fourteen (14) Calendar days			Ì
	F: T:	Item		1
1/1/26	Clause 26.0 - Adjustment of the contract value and final account			1
	Fluctuations in costs			1
	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]			
	Cost of claims			Ì
	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			Ì
	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]			
	F: T:	Item		1
1/1/27	Clause 27.0 - Recovery of expense and/or loss			Ì
	F: T:	Item		1
	Suspension and termination (A28 - A29)			ı
1/1/28	Clause 28.0 - Suspension by the contractor			ı
	Clause 28.1.1 is amended by replacing it with the following: No clause			
	F: T:	Item		
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	Bill No. 1 PRELIMINARIES		R	

1/1/29	Clause 29.0 - Termination			
	TERMINATION BY THE EMPLOYER			
	Clause 29.1 is amended by the addition of the following			
	clauses:			
	29.1.4 refuses or neglects to comply strictly with any of the conditions of contract.			
	29.1.5 estate being sequestrated, liquidated or			
	surrendered in terms of the insolvency laws in force			
	within the Republic of South Africa.			
	29.1.6 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in			
	executing the contract.			
	3			
	TERMINATION BY THE CONTRACTOR			
	Clause 29.14.1 is deleted and is amended by the			
	addition of the following clause: No clause Clause 29.0 is amended by the addition of the following			
	clause:			
	29.29 Notwithstanding any clause to the contrary, on			
	cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the			
	contractor shall on written instruction, discontinue with			
	the works on a date stated and withdraw himself from			
	the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or			
	right of retention or on the grounds of any other right			
	whatsoever.			
	F:V:			
	T:	Item		
	Dispute resolution (A30)			
4/4/00				
1/1/30	Clause 30.0 - Dispute resolution			
	<u>F</u> :V:			
	T:	Item		
1/1/31	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:	Item		
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES			
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1/1/32	Contract data			
	Tenderer's selections			
	Before submission of his tender the contractor is to complete the tenderer's selections in the contract data			
	F: T:	Item		
	SECTION B: GENERAL PRELIMINARIES			
	Definitions and interpretation (B1)			
1/1/33	Clause 1.1 - Definitions			
	F:V:	Itama		
	T:	Item		
1/1/34	Clause 1.2 - Interpretation			
	F: T:	Item		
	Documents (B2)			
1/1/35	Clause 2.1 - Checking of documents			
	F: T:	Item		
1/1/36	Clause 2.2 - Provisional bills of quantities			
	No			
	F: T:	Item		
1/1/37	Clause 2.3 - Availability of construction information			
	Yes			
	F: T:	Item		
1/1/38	Clause 2.4 - Ordering of materials and goods			
	F:V:			
	T:	Item		
	Carried to Collection		R	
	Bill No. 1			
	PRELIMINARIES			

	Previous work and adjoining properties (B3)			
1/1/39	Clause 3.1 - Previous work - dimensional accuracy			
	Not Applicable			
	F: T:	Item		
1/1/40	Clause 3.2 - Previous work - defects			
	Not Applicable			
	F: T:	Item		
1/1/41	Clause 3.3 - Inspection of adjoining properties			
	Neighbouring properties.			
	F: T:	Item		
	The site (B4)			
1/1/42	Clause 4.1 - Handover of site in stages			
	Not Applicable			
	F: T:	Item		
1/1/43		Item		
1/1/43	Clause 4.2 - Enclosure of the works F:V:	пеш		
	T:			
1/1/44	Clause 4.3 - Geotechnical and other investigations			
	F: T:	Item		
1/1/45	Clause 4.4 - Encroachments	itom		
171740	F: V:			
	T:	Item		
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES			
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1/1/46	Clause 4.5 - Existing premises occupied			
	Not Applicable			ı
	F:V:			1
	T:	Item		1
1/1/47	Clause 4.6 - Services - known			ı
	F: T:	Item		1
		item		1
	Management of contract (B5)			1
1/1/48	Clause 5.1 - Management of the works			1
	F: T:	Item		1
4/4/40		ltom		1
1/1/49	Clause 5.2 - Progress meetings			1
	F: T:	Item		1
1/1/50	Clause 5.3 - Technical meetings			1
17 1700	F: V:			1
	T:	Item		1
	Samples, shop drawings and manufacturer's			1
	instructions (B6)			1
1/1/51	Clause 6.1 - Samples of materials			1
	F: T:	Item		1
		item		1
1/1/52	Clause 6.2 - Workmanship samples			1
	F: T:	Item		1
1/1/53				1
1/1/55	Clause 6.3 - Shop drawings			ı
	F: T:	Item		1
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	Carried to Collection Bill No. 1		R	
	PRELIMINARIES			ı
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1/1/54	Clause 6.4 - Compliance with manufacturer's instructions			
	F: V: T:	Item		
	Deposits and fees (B7)			
1/1/55	Clause 7.1 - Deposits and fees			
	F: V: T:	Item		
	Temporary services (B8)			
1/1/56	Clause 8.1 - Water			
	By the Contractor			
	F: V: T:	Item		
1/1/57	Clause 8.2 - Electricity			
	By the Contractor			
	F: V: T:	Item		
1/1/58	Clause 8.3 - Ablution and welfare facilities			
	By the Contractor			
	F: T:	Item		
1/1/59	Clause 8.4 - Communication facilities			
	F: T:	Item		
	Prime cost amounts (B9)			
1/1/60	Clause 9.1 - Responsibility for prime cost amounts			
	F: T:	Item		
	Carried to Collection Bill No. 1		R	
	PRELIMINARIES			

	Attendance on subcontractors (B10)			
1/1/61	Clause 10.1 - General attendance			
	F: T:	Item		
1/1/62	Clause 10.2 - Special attendance			
	F: T:	Item		
	General (B11)			
1/1/63	Clause 11.1 - Protection of the works]
	<u>F</u> :V:			
	T:	Item		
1/1/64	Clause 11.2 - Protection/isolation of existing works and works occupied in sections			
	Not Applicable			
	F:V:			
	T:	Item		
1/1/65	Clause 11.3 - Security of the works			
	<u>F</u> :V:			
	T:	Item		
1/1/66	Clause 11.4 - Notice before covering work			
	F: T:	Item		
		item		
1/1/67	Clause 11.5 - Disturbance			
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	Bill No. 1			
	PRELIMINARIES			

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	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:T:	Item		
1/1/68	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			
	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			
	Environmental management plan			
	The employer has prepared an environmental management plan (EMP) (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:T:	Item		
1/1/69	Clause 11.7 - Works cleaning and clearing			
	F: T:	Item		
1/1/70	Clause 11.8 - Vermin			
	F: T:	Item		
	Carried to Collection Bill No. 1		R	
	PRELIMINARIES			

1/1/71	Clause 11.9 - Overhand work			1
	F: V:			
	T:	Item		
1/1/72	Clause 11.10 - Tenant installations			
	Not Applicable			
	F: T:	Item		
1/1/73	Clause 11.11 - Advertising			
., .,	F: V:			
	T:	Item		
	SECTION C: SPECIFIC PRELIMINARIES			
1/1/74	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			
	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			
	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			
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	PRELIMINARIES			1

1/1/75	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:T:	Item		
1/1/76	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:T:	Item		
1/1/77	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:T:	Item		
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES			

1/1/78	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:T:	Item		
1/1/79	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:T:	Item		
1/1/80	Health and safety			
	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]			
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	Bill No. 1			_
	PRELIMINARIES			

	The contractor shall:			
	Comply with the health and safety specification for the works			
	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			
	 Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 			
	 Conform to the conditions contained in the employer's health and safety specification 			
	Appoint a suitably qualified person to ensure health & safety regulations are met			
	F: V: T:	Item		
1/1/81	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			
	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			
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	Bill No. 1 PRELIMINARIES			

1/1/82	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:T:	Item		
1/1/83	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:T:	Item		
1/1/84	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			
	F:T:	Item		
	SUMMARY OF CATEGORIES			
	Category : Fixed R			
	Category : Value R			
	Category : Time R			
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	Bill No. 1 PRELIMINARIES			

Bill No. 1			
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Item No		Quantity	Rate	Amount	
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	BILL NO. 1				
	EARTHWORKS (PROVISIONAL)				
	PREAMBLES				
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	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				
	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				
	<u>Filling</u>				
	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 multiple handling of material				
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	Excavations in conditions other than earth					
	Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly					
	Subterranean water					
	The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.					
	EXCAVATION, FILLING, ETC					
	Excavation in earth or compacted filling not exceeding 2m deep					
2/1/1	Trenches	m3	124			
2/1/2	Holes	m3	16			
	Extra over excavations in earth for exacavation in:					
2/1/3	Soft rock	m3	14			
2/1/4	Hard rock	m3	10			
	Extra over all excavations for carting away					
2/1/5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	77			
	Risk of collapse of excavations					
2/1/6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	585			
	Keeping excavations free of water					
2/1/7	Keeping excavations free of water		Item			
	FILLING, ETC					
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	Bill No. 1 EARTHWORKS					
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	Earth filling obtained from the excavations and/or				
	prescribed stock piles on site compacted to 100% Mod AASHTO density				
2/1/8	Backfilling to trenches, holes, etc	m3	59		
	Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 98% Mod AASHTO to density				
2/1/9	Under floors, steps, pavings, etc	m3	120		
	Compaction of surfaces				
2/1/10	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	257		
	Prescribed density tests on filling				
2/1/11	"Modified AASHTO Density" test	No	10		
	SOIL POISONING AND PROTECTION AGAINST TERMITES				
	Soil insecticide under a 10 year guarantee by a firm of specialist				
2/1/12	Under floors, etc including forming and poisoning shallow furrows etc and filling in furrows and ramming	m2	127		
2/1/13	To bottoms and sides of trenches, etc	m2	715		
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	Bill No. 1 EARTHWORKS				

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Bill No. 1 EARTHWORKS			

Item No			Quantity	Rate	Amount
	SECTION 2				
	BILL NO.2				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	PREAMBLES				
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	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).				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15MPa /19mm Concrete in				
2/2/1	Surface blinding under footings and bases	m3	9		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	30 MPa/19mm Concrete in				
2/2/2	Foundations	m3	25		
2/2/3	Bases	m3	5		
2/2/4	Surface beds on waterproofing	m3	60		
	Carried to Collection			R	
	Bill No. 2 CONCRETE, FORMWORK & REINFORCEMENT				

2/2/5	Apron slabs 75mm thick	m3	10		
	TEST BLOCKS				
	Test blocks:				
2/2/6	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	17.0		
	FINISHING TOP SURFACE OF CONCRETE				
	Finishing top surfaces of concrete smooth with a steel trowel:				
2/2/7	Apron slabs	m2	127		
2/2/8	Surface beds, slabs, etc.	m2	400		
	ROUGH FORMWORK (DEGREE OF ACCURACY III)				
	Rough Formwork to Sides:				
2/2/9	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	106		
	REINFORCEMENT				
	High tensile steel reinforcement to structural concrete work				
2/2/10	10mm Diameter bars	t	0.02		
	Fabric reinforcement				
2/2/11	Type 245 fabric reinforcement in concrete surface beds, apron slabs, etc.	m2	527		
2/2/12	Type 617 fabric reinforcement in concrete surface beds, apron slabs, etc.	m2	206		
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	Bill No. 2 CONCRETE, FORMWORK & REINFORCEMENT				

Bill No. 2		
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Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 3			
	MASONRY			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	BRICKWORK			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<u>Pointing</u>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<u>Samples</u>			
	Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site			
	FOUNDATIONS (PROVISIONAL)			
	Carried to Collection		R	
	Bill No. 3 MASONRY			

	Brickwork of NFX bricks (14 MPA nominal compressive strength) in class I mortar				
2/3/1	Piers	m3	2		
2/3/2	One brick walls	m2	235		
	SUPERSTRUCTURE				
	Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar				
2/3/3	Piers	m3	5		
2/3/4	Half brick walls	m2	150		
2/3/5	Half brick walls in beamfilling	m2	52		
2/3/6	One brick walls	m2	418		
	SUNDRIES				
	Brickwork reinforcement				
2/3/7	75mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	698		
2/3/8	150mm Wide reinforcement built in horizontally	m	2 461		
	Concrete prestressed fabricated lintels				
2/3/9	110 x 75mm Lintels in lengths not exceeding 3m	m	88		
2/3/10	150 x 75mm Lintels in lengths not exceeding 3m	m	9		
	Turning pieces				
2/3/11	220mm Wide turning piece to lintels etc	m	41		
	Galvanised hoop iron cramps, ties, etc				
2/3/12	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No	140		
	Carried to Collection Bill No. 3			R	
	MASONRY				

	Air bricks				
2/3/13	229x152mm Terracotta air bricks	No	6		
	FACE BRICKWORK				
	Facebricks laid in stretcher bond manufactured in accordance with SANS 227:2007, bedded and jointed in Class II mortar and pointed with recessed vertical and recessed horizontal joints				
2/3/14	Extra over brickwork for face brickwork	m2	282		
2/3/15	Extra over brickwork for face brickwork in beamfilling	m2	52		
2/3/16	Extra over brickwork for face brickwork in foundations (Provisional)	m2	60		
2/3/17	Extra over brickwork for 300 x 300mm Piers pointed all sides	m2	56		
2/3/18	One brick wall faced both sides	m2	63		
2/3/19	Fair raking cutting	m	37		
2/3/20	Fair splay cutting	m	37		
2/3/21	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	4		
2/3/22	Fair cutting and fitting around pipe exceeding 100mm and not exceeding 200mm diameter	No	4		
	Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces				
2/3/23	Coping on top of one brick wall	m	42		
2/3/24	220mm Wide double bullnosed edge coping on top of one brick wall	m	11		
2/3/25	Coping on raking top of one brick wall	m	30		
	Carried to Collection			R	
	Bill No. 3 MASONRY				

2/3/26	Cut face brick-on-edge external window cill, 180mm wide, set sloping and slightly projecting in cement mortar and pointed on top, front edge and projecting soffit including all necessary fair raking cutting to facings under and fair and fitted ends	m	38		
2/3/27	Brick-on-edge header course lintel pointed on both face and 220mm wide soffit	m	108		
2/3/28	Construct a sample panel 2000mm long x 1500mm high of one brick wall in cement mortar faced and pointed on both sides in stretcher bond and with brick-on-edge coping to top including pointing to top and both sides and with and including necessary excavations for and including 15MPa/38mm mass concrete strip footing in a position as directed by the Representative/Agent and including demolishing and removal after completion of all brickwork	No	1		
	FIBRE CEMENT WINDOW CILLS				
	15mm Thick natural grey cills in single length bedded in 4:1 sand cement mortar including metal lugs, etc:				
2/3/29	140mm Wide cills set flat and slightly projecting.	m	38		
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Bill No.	3			
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Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 4			
	WATERPROOFING			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	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			
	DAMPPROOFING OF WALLS AND FLOORS			
	One layer approved 375 micron embossed black polyethylene damp proof course			
2/4/1	In walls m	2 52		
2/4/2	Under window cills m	2 20		
	One layer 250 micron green polyethylene waterproof sheeting complying with SABS 952 Type C in widest practicable widths with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements			
2/4/3	Under surface beds m	2 400		
	Carried Forward to Summary of Section No. 2		R	
	Bill No. 4 WATERPROOFING			

Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 5			
	ROOF COVERINGS, ETC			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	PROFILED METAL SHEETING AND ACCESSORIES			
	0,60mm Thick Colomate prepainted IBR profile metal roof sheeting with zinc galvanised coating in single lengths fixed to timber purlins or rails. (Colour to match existing building)			
	<u>Note</u> : The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
2/5/1	Roof covering with pitch not exceeding 25 degrees m2	571		
2/5/2	Ridge capping 370mm girth m	43		
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	Bill No. 5 ROOF COVERINGS			
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Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 6			
	CARPENTRY & JOINERY			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Prefabricated trusses shall be fabricated in a factory by a truss fabricator who has been awarded a Certificate of Competence by the Institute of Timber Construction and is approved by the Principal Agent.			
	All trusses shall be designed by a registered Professional Engineer in accordance with SABS Code of Practice for Design of Timber Structures.			
	The complete structure shall be inspected by the truss designer to ensure that the manufacture and erection details have been complied with.			
	PREFABRICATED ROOF TRUSSES, ETC.			
	Sawn softwood:			
	Prefabricated timber roof construction complete including rafters, runners, bracing hips, valleys, cleats, purlins, etc., treated with creosote, supplied and fixed complete:			
2/6/1	Trusses for rectangular shaped building including purlins, size overall 3.44 x 3.14m on plan (Guard house)	1		
2/6/2	Trusses for rectangular shaped building including purlins, size overall 38.43 x 10.12m on plan (3			
	Classrooms). No	1		
	Carried to Collection		R	
	Bill No. 6 CARPENTRY & JOINERY			

	Sawn softwood:				
2/6/3	114 x 38mm Wall plates.	m	84		
	EAVES, VERGES, ETC.				
	Pre painted aluminium fascia and barge boards				
2/6/4	12 x 225mm Fascia and barge boards, including galvanised steel H-profile joiners, etc.	m	117		
	SKIRTINGS				
	Wrought meranti:				
2/6/5	19 x 76mm Skirtings including 19mm quadrant bead, nailed.	m	228		
2/6/6	16 x 150mm dado rail.	m	102		
	FRAMED DOORS, ETC.				
	Wrought meranti doors hung to steel frames:				
2/6/7	40mm Framed batten door 813 x 2032mm high of top rail and stiles, middle ledge and braces and bottom rail filled in with V-jointed one side boarding.	No	7		
	SOLID LAMINATED FLUSH DOORS				
	40mm solid laminated flush doors with hardwood veneer and two concealed edges hung to steel frames:				
2/6/8	40mm Door 813 x 2032mm high.	No	21		
2/6/9	40mm Door 936 x 2032mm high.	No	3		
	JOINERY FITTINGS ETC				
	WORKTOPS, CUPBOARDS AND COUNTERS, ETC.				
					-
	Carried to Collection			R	4
	Bill No. 6 CARPENTRY & JOINERY				

	Timber cupboard and counter units with 18mm thick water resistant melamine faced particleboard shelving, doors, dividers, etc and 32mm thick decorative laminated worktops with 1.2mm thick "Formica" finish, complete with ironmongery, finishes, silicone sealant at joints with walls, etc				
2/6/10	Sink cupboard size 920 x 600 x 900mm high with melamine finish and 32mm thick post formica worktop	No	3		
2/6/11	Floor cupboard size 1700 x 600 x 900mm high with formica top	No	3		
	Carried to Collection			R	
	Bill No. 6 CARPENTRY & JOINERY				

Bill No. 6			
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Bill No. 6			
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	BILL NO. 7				
	CEILINGS, PARTITIONS AND ACCESS FLOORING				
	PREAMBLES				
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	<u>Descriptions</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere				
	Proprietary suspended ceilings				
	Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)				
	INSULATION, ETC				
	Fibreglass insulation				
2/7/1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions m2	312			
					$\frac{1}{2}$
	Carried to Collection		R		
	Bill No. 7 CEILINGS & BULKHEADS				

	NAILED UP CEILINGS				
	9mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster				
2/7/2	Horizontal ceiling formed of 9mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood brandering at 400mm centres in one direction and around edges where required for fixing cornices, brandering spiked to roof timber	· 2	200		
0/7/0		m2	260		
2/7/3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	4		
	6mm Fibre-cement plain ceiling boards with H-profile galvanised steel jointing strips:				
2/7/4	Ceilings including 38 x 38mm sawn softwood brandering at 450mm centres with cross brandering at 450mm centres and at joints, ends of sheets and at light fittings, etc.	m2	52		
2/7/5	Extra over ceiling for 600 x 600mm hinged trap door of wrought softwood rebated framing with one sawn softwood cross brander covered with ceiling board and				
	fitted flush in opening, including necessary trimmers all around.	No	1		
	Cornices				
2/7/6	76mm Gypsum coved trim cornice	m	228		
	Carried to Collection			R	
	Bill No. 7 CEILINGS & BULKHEADS				

Bill No. /				
CEILINGS & BULKHEADS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	48			
	49			
Carried Forward to Summary of Section No. 2		R		
Bill No. 7				_
CEILINGS & BULKHEADS				

Item No			Quantity	Rate	Amount
	SECTION 2				
	BILL NO. 8				
	FLOOR COVERINGS, WALL LININGS, ETC				
	PREAMBLES				
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	NOTE : All materials shall be in colours to be selected by the Representative/Agent and, where applicable, laid to approved patterns				
	FLOOR COVERINGS				
	300 x 300 x 2,5mm "Marley Travertine" fully flexible vinyl tiles or similar approved				
2/8/1	On floors	m2	312		
	POLISH, SEALERS, ETC				
	Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish complying with SABS 1042, including buffing after application of each coat of polish				
2/8/2	On vinyl flooring	m2	312		
	Carried Forward to Summary of Section No. 2			R	
	Bill No. 8 FLOOR COVERINGS & WALL LINNINGS				

Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 9			
	IRONMONGERY			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	HINGES, BOLTS, ETC			
2/9/1	100mm Brass barrel bolt with keep let into concrete No	14		
	IRONMONGERY FIXED TO DOORS, ETC.			
	LOCKS:			
2/9/2	75mm Four lever security lockset with satin chrome furniture with striking plate fixed to metal No	24		
	NUMERAL AND NAMEPLATES, ETC.			
	Clear perspex name plate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tapscrewed to steel door frames or gate framing with chromium plated domeheaded selftapping screws:			
2/9/3	3mm Thick x 32mm high plate with letters "KITCHEN". No	3		
2/9/4	Ditto, but with letters "STORE ROOM". No	3		
2/9/5	Ditto, but with letters "CLASSROOMS". No	7		
	Indicator plates countersunk holed for and screwed to door or brickwork with chromium plated dome-headed screws:			
2/9/6	190 x 190 x 3mm Thick white perspex international FB2 sign plate with red fire extinguisher symbol plugged to brickwork.	3		
	Carried to Collection Bill No. 9 IRONMONGERY		R	

2/9/7	190 x 190 x 3mm Thick white perspex international FB2 sign plate with red fire hose reel symbol plugged to				
	brickwork.	No	1		
2/9/8	75 x 150mm High aluminium toilet sign with MALE and/or FEMALE figure screwed to door.	No	10		
	PELMET AND CURTAIN TRACKS				
2/9/9	Double curtain track for soffit fixing including 14 rollers per metre, brackets, stopped ends, etc plugged to brickwork.	m	4		
	SUNDRIES				
2/9/10	Rubber tipped coathook.	No	10		1
2/9/11	38mm Rubber stop plugged and srewed to wall or floor.	No	7		ı
2/9/12	Nickel plated steel leaf spring door holder with rubber door stop plugged or screwed to floor.	No	7		
2/9/13	Aluminium automatic weather seal 813mm fixed to doors	No	7		
2/9/14	19mm Stainless steel chromium plated towel rail, 600mm long, with end brackets plugged to plastered or tiled wall.	No	9		
2/9/15	3 x 30mm Brass dividing strip between different floor finishes.	m	6		
	BATHROOM FITTINGS				1
	Chairman Industries or similar approved brushed stainless steel grab rails:				
2/9/16	300 x 300 x 300 x 32mm Stainless steel dog leg side grab rail fixed in position	No	3		
2/9/17	750 long x 200mm Projecting stainless steel straight grab rail fixed in position	No	3		
	Toilet roll holders				
2/9/18	Lockable Stainless steel toilet roll holder plugged to wall.	No	13		
	Carried to Collection			R	
	Bill No. 9				
	IRONMONGERY				

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	Soap dispensers				
2/9/19	1Litre Wall mounted refillable soap dispenser plugged.	No	13		
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.				
	Carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component all fixed according to manufacturer's instruction.				
2/9/20	Pinning board size 2400 x 1200mm high plugged.	No	3		
	Swing type green chalkboard to comply with CKS-36-1980 or equivalent code of practice, complete with chalk rail as one unit fixed to wall strictly according to manufacturers instruction:				
2/9/21	Chalk board size overall 1140mm high x 3600mm wide consisting of 1 x chalkboard 1800mm wide, 2 x chalkboard 900mm wide, 2 x swing type chalkboard 900mm wide.	No	3		
	Standard wall mounted white built in type medicine cabinet complete with mirrors on doors, shelves, etc., all as approved and to manufacturer's instruction:				
2/9/22	Medicine cabinet size 380mm wide x 610mm high.	No	3		
	Ocurio d to Oculo eticus				
	Carried to Collection Bill No. 9			R	
	IRONMONGERY				
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Bill No. 9		
IRONMONGERY		
COLLECTION		
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Total Brought Forward from Page No.	52	
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Carried Forward to Summary of Section No. 2		R
Bill No. 9 IRONMONGERY		

Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 10			
	METALWORK			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers. Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.			
	STEEL GATES, SCREENS, ETC			
	The following in framed and welded mild steel security grille gates including fixing in position complete			
2/10/1	Single gate and frame size 880 x 2082mm high overall formed of 50 x 50 x 2mm rectangular hollow section framing all round mitred and welded at angles, filled with 10 x 10mm mild steel bars at 100mm centres at 45degree angle with ends welded to framing including hinges, locking devices, etc.	2		
2/10/2	Single gate and frame size 925 x 2082mm high overall formed of 50 x 50 x 2mm rectangular hollow section framing all round mitred and welded at angles, filled with 10 x 10mm mild steel bars at 100mm centres at	_		
	45degree angle with ends welded to framing including hinges, locking devices, etc. No	6		
	Carried to Collection		R	
	Bill No. 10 METALWORK			

2/10/3	Double gate and frame size 1870 x 2083mm high overall formed of 50 x 50 x 2mm rectangular hollow section framing all round mitred and welded at angles, with double swing doors formed of 50 x 50 x 2mm rectangular hollow section framing all round mitred and welded at angles made of filled with 10 x 10mm mild steel bars at 100mm centres at 45degree angle with ends welded to framing including hinges, locking devices, etc.	No	2		
	PRESSED STEEL DOOR FRAMES				
	1, 2mm Double rebated frames suitable for half brick walls with two 100mm steel butt hinges per leaf				
2/10/4	Frame for door size, 813x 2032mm high	No	24		
	1,2mm Double rebated frames suitable for one brick walls with two 100mm steel butt hinges per leaf				
2/10/5	Frame for door size, 813x 2032mm high	No	7		
	STEEL CUPBOARDS				
2/10/6	Double door steel cupboard bolted to wall 1400 x 1700mm high	No	3		
	STEEL WINDOWS, DOORS, ETC				
	Cottage type steel windows with 20 x 5mm steel flat burglar bars to fixed and opening sections including standard brass fittings				
2/10/7	Window type E1, 533 x 654mm high	No	7		
2/10/8	Window type 4BH BHOI, 889 x 457mm high	No	4		
2/10/9	Window type 14-BH BHOI, 889 x 854mm high	No	3		
2/10/10	Window type 14BH over 9-F/LT, 889 x 1248mm high	No	30		
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	Carried to Collection			R	4
	Bill No. 10 METALWORK				

Bill No. 10			
METALWORK			
COLLECTION			
	Page No		Amount
Total Brought Forward from Page No.	No 56		
	57		
Carried Forward to Summary of Section No. 2		R	
Bill No. 10 METALWORK			

Item No			Quantity	Rate	Amount
	SECTION 2				
	BILL NO. 11				
	PLASTERING				
	PREAMBLES				
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Plaster on concrete				
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work				
	SCREEDS				
	1:3 Screeds wood trowelled on concrete				
2/11/1	30mm Thick on floors and landings	m2	312		
	GRANOLITHIC				
	Untinted granolithic on concrete (degree of accuracy grade III)				
2/11/2	30mm Thick on floors and landings	m2	169		
	INTERNAL PLASTER				
	1:4 Cement plaster on brickwork finished smooth with wood float				
2/11/3	On walls	m2	439		
2/11/4	On narrow widths	m2	19		
	Carried Forward to Summary of Section No. 2			R	
	Bill No. 11 PLASTERING				

Item No		Quantity	Rate	Amount
	SECTION 2		ı	
	BILL NO. 12			
	TILING			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	WALL TILING			
	200 x 200mm "College Shiny White" Porcelain wall tiles fixed with adhesive to plastered wall and flush pointed with tinted waterproof jointing compound, dove grey grout			
2/12/1	On walls m2	38		
2/12/2	On isolated panels, splashbacks, etc to walls not exceeding1m2 m2	. 7		
	300 x 300mm "White Matt" Porcelain Mosaic wall tiles fixed with adhesive to plastered wall and flush pointed with tinted waterproof jointing compound, dove grey grout			
2/12/3	On walls m2	6		
	Carried Forward to Summary of Section No. 2 Bill No. 12		R	
	TILING			

Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 13			
	PLUMBING & DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	uPVC pipes and fittings:			
	Soil, waste and vent pipes and fittings shall be solvent weld jointed			
	Copper pipes:			
	Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground			
	Fixing of pipes			
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level			
	Lead pipes and fittings			
	All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel			
	Carried to Collection		R	
	Bill No. 13 PLUMBING & DRAINAGE			

Reducing fittings		
Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for		
extra bushes, reducers, etc will be entertained		
<u>Excavations</u>		
No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling		
"Soft rock" and "hard rock" shall be as defined in "Earthworks"		
Laying, backfilling, bedding, etc. of pipes		
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions		
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding		
Stainless steelbasins, sinks, wash troughs, urinals,		
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable		
Waste unions		
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings		
	_	
Carried to Collection Bill No. 13	R	
PLUMBING & DRAINAGE		

	User note:				
	Please note the rate for butt weldings is deemed to be included in all fittings				
	RAIN WATER GOODS				
	Pre-Painted Seamless Aluminium Ogee Gutters (or similar approved), Rainwater Pipes And Accessories In Long Lengths				
2/13/1	100 x 125mm Industrial ogee eaves gutter fixed to fibre cement fascia.	m	85		
	Extra for				
2/13/2	Stopped end.	No	8		
2/13/3	External angle.	No	8		
2/13/4	Outlet with nozzle for 100 x 75mm rainwater pipe.	No	10		
	(End Of Extra For)				
2/13/5	100 x 75 x 2mm Rainwater pipe plugged to wall.	m	26		
	Extra For				
2/13/6	Shoe.	No	10		
2/13/7	Bend.	No	10		
2/13/8	Swanneck bend.	No	10		
	SANITARY FITTINGS AND GEYSERS				
	Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc., and connecting up pipework and handing over in perfect working order at completion:				
	Carried to Collection Bill No. 13 PLUMBING & DRAINAGE			R	

	'Vitreous clay':				
2/13/9	White vitreous china wall hung basin, size 510 x 405mm, with stopper to one tap hole and fixed to wall.	No	16		
2/13/10	WC suite comprising a 90° outlet white vitreous china pan with trap, matching 9 litre white vitreous china cistern, complete with heavy duty plastic flap seat and lid, fitments fixed to wall.	No	1		
2/13/11	Mini WC suite comprising a 45° outlet white vitreous china pan with trap, matching 5 litre white vitreous china cistern, complete with heavy duty plastic flap seat and lid, fitments fixed to wall.	No	6		
2/13/12	Wall hung Paraplegic WC suite comprising a white vitreous china pan with trap, matching 9 litre white cistern, complete with lid, fitments, purpose made chromium plated side flush lever and white matching seat fixed to wall.	No	3		
	Grade 304 (18/10) polished stainless steel:				
2/13/13	Drop-in single end bowl sink, size 500 x 1000mm, fixed to cupboard (cupboard by others) with securing clips and sealed with sillicone adhesive along edges.	No	3		
	TAPS, VALVES, ETC.				
	Taps, valves, etc				
2/13/14	Kitchen range (SS-970) 15mm chrome single lever sink mixer with tubular swivel outlet, adjustable wall flanges	No	3		
2/13/15	15mm 'Star 111-CP' raised nose pillartap.	No	13		
2/13/16	15mm Type '505-21 CP' elbow action pillartap.	No	3		
2/13/17	15mm Type 'P-832 CP' angle regulating valve.	No	32		
2/13/18	15mm Type '350F CP' flexible connection.	No	32		
	WASTE UNIONS, TRAPS, ETC.				
	Traps, etc.				
2/13/19	32 x 40mm 'Flexitrap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	16		
	Carried to Collection			R	
	Bill No. 13 PLUMBING & DRAINAGE				

2/13/20	Ditto, but combination trap.	No	3		
	Waste unions				
2/13/21	32mm Chromium plated '303-CP' slotted basin waste union complete with plug only.	No	16		
	FIRE APPLIANCES, ETC.				
	Fire extinguishers, hose reels, etc.:				
2/13/22	4,5kg Dry chemical powder fire extinguisher fixed to wall with meranti backboard, size 520 x 100 x 22mm thick, plugged and screwed to wall complete with hook.	No	3		
2/13/23	Fire hose reel	No	1		
	HOT & COLD WATER RETICULATION INSTALLATION - GUARD HOUSE BLOCK				
	All rates supplied in this Bill of Quantities will be deemed to include scaffolding to any height and fixing of cold and hot water pipes up to and including roof height. All pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates, all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab. For the complete supply, delivery and installation of supply piping, as specified, piping to include piping between geysers on roof. All cold and hot water pipes are to be chased into walls except where pipes are to be surface-mounted on wall face or run in ceiling voids or inside ducts, and fixed with standard type pipe saddlers and brackets at 1000mm maximum.				
	Supply and install Pex-Al-Pex multilayer pipes				
2/13/24	32mm pipe	m	3		
2/13/25	Ø20mm pipe	m	1		
2/13/26	Ø16mm pipe	m	1		
	Carried to Collection			R	
	Bill No. 13 PLUMBING & DRAINAGE				

	All rates supplied in this Bill of Quantities will be deemed to include scaffolding to any height and fixing of cold and hot water pipes up to and including roof height. All pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates, all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab. For the complete supply, delivery and installation of supply piping, as specified, piping to include piping between geysers on roof. All cold and hot water pipes are to be chased into walls except where pipes are to be surface-mounted on wall face or run in ceiling voids or inside ducts, and fixed with standard type pipe saddlers and brackets at 1000mm maximum. HOT & COLD WATER PIPING				
2/13/38	Supply and install Pex-Al-Pex mulatilayer pipes 32mm pipe	m	15		
2/13/39	Ø20mm pipe	m	60		
2/13/40	Ø16mm pipe	m	150		
	<u>FITTINGS</u>				
	Supply and install Pex-Al-Pex mulatilayer pipes Fittings				
2/13/41	Ø32mm Ø20mm Ø32mm Un-Equal T-piece	No	3		
2/13/42	Ø20mm Ø16mm Ø20mm Un-Equal T-piece	No	6		
2/13/43	Ø16mm Ø16mm Ø16mm Equal T-piece	No	6		
2/13/44	Threaded Ø32mm Elbow: 90°	No	3		
2/13/45	Threaded Ø20mm Elbow: 90°	No	15		
2/13/46	Threaded Ø16mm Elbow: 90°	No	60		
2/13/47	Reducer: Ø32mm x Ø20mm	No	3		
	Carried to Collection Bill No. 13 PLUMBING & DRAINAGE			R	

2/13/48	Reducer: Ø20mm x Ø16mm	No	6		
2/13/49	Pipe clamps and hangers			SUM	
	THREADED VALVES				
2/13/50	Supply and Install Ø32mm isolating gate valve on cold water main pipes	No	3		
2/13/51	Supply and Install Ø20mm isolating gate valve on cold water main pipes	No	6		
2/13/52	Supply and Install Ø15mm isolating ball valve with lever on cold and hot water main pipes	No	18		
2/13/53	Flexible connector to sanitary fittings	No	36		
2/13/54	Supply and Install 15mm diameter stopcock/angle valve on cold and hot water pipe to sanitary appliance or sink	No	36		
	SANITARY DRAINAGE INSTALLATION - GUARD HOUSE BLOCK				
	These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All materials, equipment, fixings, brackets, etc, are to be supplied by the Contractor unless otherwise stated.				
	SANITARY DRAINAGE PIPING Polyvinyl Chloride (PVC) pipe, as 'Marley Pipe Systems' or equal approved, including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
	<u>PIPING</u>				
2/13/55	Ø50mm uPVC pipe	m	3		
	Carried to Collection Bill No. 13 PLUMBING & DRAINAGE			R	

2/13/56	Ø110mm uPVC pipe	m	3		
	PIPE FITTINGS				
2/13/57	Ø50mm fitting; 90°elbow	No	4		
2/13/58	Ø110mm fitting; 45°elbow	No	1		
2/13/59	Ø110mm fitting; 95°elbow, with Ø50mm vent horn inspection	No	1		
2/13/60	Ø110mm fitting; 95°elbow, plain long bend	No	1		
2/13/61	Ø110mm x Ø110mm x Ø110mm fitting; 87.5° swept entry, lateral branch junction	No	1		
2/13/62	Ø110mm straight pan collars/connector	No	1		
2/13/63	Ø50mm vent one way valve	No	1		
	WASTE TRAPS				
2/13/64	Supply and install chromium plated 'Cobra' Bottle Trap with 40mm female inlet x 50mm outlet for PVC tube connection	No	1		
	SANITARY DRAINAGE INSTALLATION - CLASSROOM BLOCK				
	These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All materials, equipment, fixings, brackets, etc, are to be supplied by the Contractor unless otherwise stated.				
	SANITARY DRAINAGE PIPING				
	Carried to Collection			R	
	Bill No. 13 PLUMBING & DRAINAGE				

	Polyvinyl Chloride (PVC) pipe, as 'Marley Pipe Systems' or equal approved, including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
	<u>PIPING</u>				
2/13/65	Ø50mm uPVC pipe	m	45		
2/13/66	Ø110mm uPVC pipe	m	90		
	PIPE FITTINGS				
2/13/67	Ø50mm fitting; 90°elbow	No	18		
2/13/68	Ø110mm fitting; 45°elbow	No	18		
2/13/69	Ø110mm fitting; 95°elbow, with Ø50mm vent horn inspection	No	9		
2/13/70	Ø110mm fitting; 95°elbow, plain long bend	No	18		
2/13/71	Ø110mm x Ø110mm x Ø50mm fitting; 87.5° swept entry, lateral branch junction	No	3		
2/13/72	Ø110mm x Ø110mm x Ø110mm fitting; 87.5° swept entry, lateral branch junction	No	9		
2/13/73	Ø110mm straight pan collars/connector	No	9		
2/13/74	Ø110mm x Ø50mm fitting; concentric reducer	No	9		
2/13/75	Ø100mm vent 2way valve	No	9		
	WASTE TRAPS				
2/13/76	40mm 'Dutton' flexi rubber "P" trap complete with coupling clamps.	No	3		
2/13/77	Supply and install chromium plated 'Cobra' Bottle Trap with 40mm female inlet x 50mm outlet for PVC tube connection	No	15		
2/13/78	110mm Floor Drain complete a trap.	No	3		
2/13/79	110mm Floor Gulley Complete with gulley stone, trap and crate	No	9		
	Carried to Collection			R	
	Bill No. 13 PLUMBING & DRAINAGE				

Bill No. 13				
PLUMBING & DRAINAGE				
COLLECTION				
		Page No		Amount
Total Brought Forward from Page N	lo.	61		
		62		
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Carried Forward to Sum	mary of Section No. 2		R	
Bill No. 13	y 0. 0001101111012			
PLUMBING & DRAINAGE				

Item No		Quantity	Rate	Amount
	SECTION 2			
	BILL NO. 14			
	GLAZING			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	GLAZING TO STEEL WITH PUTTY			
	5.38mm Clear laminated safety glass			
	4 mm Clear float glass fixed to steel window with putty			
2/14/1	Panes not exceeding 0,1m² m²	37		
	4 mm Opaque glass fixed to steel window with putty			
2/14/2	Panes not exceeding 0,1m² m²	2 4		
	MIRRORS			
	Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with foam backing strip all round to plugs in walls			
2/14/3	6mm "GG" quality polished glass mirror 450 x 600mm high with polished edges fixed to wall with four 35mm round nose chromium plated mirror screws	16		
	Carried Forward to Summary of Section No. 2 Bill No. 14 GLAZING		R	

Item No			Quantity	Rate	Amount
	SECTION 2				
	BILL NO. 15				
	<u>PAINTWORK</u>				
	PREAMBLES				
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	DESCRIPTIONS				
	Descriptions of paintwork shall be deemed to include for all cutting in				
	PAINTWORK, ETC TO NEW WORK				
	ON FLOATED PLASTER				
	Prepare, stop and apply one coat masonry primer, one universal undercoat and two coats acrylic PVA paint such as Plascon True Colour Fresh Linen or similar approved				
2/15/1	On internal plastered walls	m2	435		
	ON PLASTERBOARD				
	Prepare, stop and apply two full coats semi-gloss PVA co-polymer paint to comply with SABS Specification No. 643				
2/15/2	On ceilings and cornices	m2	312		
	ON METAL				
	Carried to Collection			R	
	Bill No. 15 PAINTING				

	Prepare and apply two coats bitumen paint				
2/15/3	On inside of 100 x 125mm galvanised sheet iron eaves gutter before fixing	m2	28		
	Prepare, stop and apply one coat alkaline resistant primer, one coat universal undercoat and two coats eggshell enamel paint				
2/15/4	On eaves gutters	m2	35		
2/15/5	On down pipes	m2	3		
	Prepare, touch up factory primer and apply one coat universal undercoat and two full coats high gloss enamel paint				
2/15/6	On Windows with burglar bars (both sides measured				
	flat)	m2	81		
2/15/7	On pressed steel door frames	m2	33		
	Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint				
2/15/8	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	46		
	ON WOOD				
	Prepare, stop and apply three coats clear varnish				
2/15/9	On doors	m2	105		
2/15/10	On meranti skirting, dado rail etc.	m	330		
	One coat creosote paint				
2/15/11	On roof timbers at eaves and verges	m2	43		
	Carried to Collection Bill No. 15			R	
	PAINTING				

Bill No. 15		
PAINTING		
COLLECTION		
	Page No	Amount
Total Brought Forward from Page No.	73	
	74	
Carried Forward to Summary of Section No. 2		R
Bill No. 15 PAINTING		

	SECTION SUMMARY - BUILDING WORKS			
Bill No		Page No		Amount
2/1	EARTHWORKS	33		
2/2	CONCRETE, FORMWORK & REINFORCEMENT	36		
2/3	MASONRY	41		
2/4	WATERPROOFING	42		
2/5	ROOF COVERINGS	43		
2/6	CARPENTRY & JOINERY	47		
2/7	CEILINGS & BULKHEADS	50		
2/8	FLOOR COVERINGS & WALL LINNINGS	51		
2/9	IRONMONGERY	55		
2/10	METALWORK	58		
2/11	PLASTERING	59		
2/12	TILING	60		
2/13	PLUMBING & DRAINAGE	71		
2/14	GLAZING	72		
2/15	PAINTING	75		
	Carried to Final Summary		R	

Item No		Quantity	Rate	Amount
	SECTION NO. 3			
	BILL NO. 1			
	BULK EARTHWORKS (PROVISIONAL)			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SITE CLEARANCE, ETC			
3/1/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc m2	675		
3/1/2	Strip topsoil average 100mm deep and dispose off site m2	675		
	BULK EXCAVATION, FILLING, ETC TO FORM PLATFORMS			
	Open face excavation in earth over sloping site			
3/1/3	Open face excavation m3	125		
	Extra over bulk excavation in earth for excavation in			
3/1/4	Soft rock m3	13		
3/1/5	Hard rock m3	6		
	Extra over all excavations for carting away			
3/1/6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor m3	125		
	Keeping excavations free of water			
3/1/7	Keeping excavations free of all water other than subterranean water	Item		
	FILLING, ETC			
	Commical to Calle attaca			
	Carried to Collection Bill No. 1		R	
	BULK EARTHWORKS (PROVISIONAL)			

Bill No. 1			
BULK EARTHWORKS (PROVISIONAL)			
COLLECTION			
	Page		Amount
Total Brought Forward from Page No.	No 77		
Total Broaght Forward from Fage No.	78		
	70		
Carried Forward to Summary of Sec	ction No. 3	R	
Bill No. 1 BULK EARTHWORKS (PROVISIONAL)			
BOLICE ACTIONOLICO (FROMOIONAL)			

Item No		Quantity	Rate	Amount
	SECTION NO. 3			
	BILL NO. 2			
	SEWER RETICULATION (PROVISIONAL)			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SEWER PIPEWORK			
	UPVC Class 34 pipes including excavation, bedding, backfilling and compaction and disposal of surplus material			
3/2/1	160mm Pipes laid in and including trenches not exceeding 1m deep	n	1	
3/2/2	160mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	n 12	4	
	Extra over uPVC class 34 pipes for fittings			
3/2/3	22.5 Degree bend	0	5	
3/2/4	45 Degree bend	o	5	
3/2/5	45 degree plain junction	О	5	
3/2/6	Rodding eye	0	3	
	Sundries			
3/2/7	350 x 350mm 15MPa Unreinforced concrete encasing around 160mm horizontal pipe	3 1	5	
3/2/8	110mm uPVC cleaning eye to end of 110mm uPVC pipe	o	3	
	Carried to Collection		R	
	Bill No. 2			
	SEWER RETICULATION (PROVISIONAL)			

3/2/9	350 x 350 x 50mm Thick precast concrete inspection eye marker slab finished smooth on exposed surfaces				
	with letters "I.O." or "I.E." on top and placed flush in ground or paving	No	3		
	MANHOLES				
	Precast concrete manholes with medium duty concrete manhole cover and frame, frame bedded in 1:3 cement mortar, spacers bedded in 1:6 cement mortar and precast concrete slab including excavations, backfilling, compaction, risk of collapse, cartaway surplus material, 150mm thick unreinforced 25MPa/19mm concrete base projecting 65mm wide from walls, benching, junctions, channelling, and step irons all in accordance with engineer's drawings for the following depths:				
3/2/10	1000mm diameter (internally) Precast concrete manhole not exceeding 1.0m deep internally	No	1		
3/2/11	1000mm diameter (internally) Precast concrete manhole exceeding 1.0m and not exceeding 2.0m deep internally	No	3		
	SEWER CONNECTION				
3/2/12	Cutting into side of existing manhole chamber for and connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching	No	1		
	TESTING				
3/2/13	Testing soil drainage system		Item		
	Carried to Collection			R	
	Bill No. 2				\dashv
	SEWER RETICULATION (PROVISIONAL)				

Bill No. 2		
SEWER RETICULATION (PROVISIONAL)		
COLLECTION		
	Page No	Amou
Total Brought Forward from Page No.	80	
	81	
Carried Forward to Summary of Section No. 3		R
Bill No. 2 SEWER RETICULATION (PROVISIONAL)		
SEVIER RETIODERTION (1 NOVIDIONAL)		

Item No		Quantity	Rate	Amount
	SECTION NO. 3			
	BILL NO. 3			
	WATER RETICULATION (PROVISIONAL)			
	WATER PIPEWORK			
	uPVC Class 12 pressure pipes including excavation, bedding, backfilling and compaction and disposal of surplus material			
3/3/1	50mm Pipes laid in and including trenches not exceeding 1m deep	160		
3/3/2	50mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	1		
	Extra over uPVC class 12 pipes for fittings			
3/3/3	50mm Bend No	3		
3/3/4	50mm Junction No.	3		
3/3/5	50mm Elbow No	3		
3/3/6	50mm Equal Tee No	3		
	<u>Sundries</u>			
3/3/7	50mm Brass gate valve	4		
3/3/8	110mm Brass gate valve	1		
3/3/9	50mm Brass non-return valve	4		
3/3/10	620 x 550mm Valve box including brick chamber below not exceeding 1m deep internally, heavy duty weight frame and cover, excavation, backfilling, compaction and disposal of surplus material	4		
3/3/11	25Mpa/19mm Unreinforced concrete in thrust blocks at bends, junctions, etc including necessary extra excavation, backfilling, formwork, etc No.	12		
	Carried to Collection		R	
	Bill No. 3 WATER RETICULATION (PROVISIONAL)			

CONSTRUCTION OF 3 CLASSROOMS AND GUARD HOUSE AT THLOPANE PRIMARY SCHOOL IDT

	TESTING			
3/3/12	Testing water supply pipe system	Item		
	Opensia d to Oplia ation			
	Carried to Collection Bill No. 3		R	_
	WATER RETICULATION (PROVISIONAL)			

Bill No. 3			
WATER RETICULATION (PROVISIONAL)			
COLLECTION			
	Page		Amount
Total Brought Forward from Page No.	No 83		
Total Broaght Forward Hom Fago No.	84		
	04		
Carried Forward to Summary of Section No. 3 Bill No. 3		R	
WATER RETICULATION (PROVISIONAL)			

Item No		Quantity	Rate	Amount
	SECTION NO. 3			
	BILL NO. 4			
	WALKWAYS (PROVISIONAL)			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	BULK EXCAVATION, FILLING, ETC TO FORM PLATFORMS			
	Excavation in earth not exceeding 2m deep			
3/4/1	Reduce levels under paving m3	18		
	Extra over bulk excavation in earth for excavation in			
3/4/2	Soft rock m3	2		
3/4/3	Hard rock m3	1		
	Extra over all excavations for carting away			
3/4/4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor m3	18		
	Compaction of surfaces			
3/4/5	Compaction of natural or excavated ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	60		
	SOIL POISONING			
	Weed killer under a 10 year guarantee by firm of specialist			
3/4/6	Under paving, etc m2	60		
	Carried to Collection		R	
	Bill No. 4 WALKWAYS (PROVISIONAL)			

Earth filling of G5 material supplied by the contractor compacted in 150mm layers to 95% Mod AASHTO density Filling under paved areas				
Filling under paved areas				
	m3	18		
Coarse river sand filling supplied by the contractor				
Under paved walkway areas	m3	1		
Filling of 19mm crushed stone, consolidated				
On floors	m3	2		
Prescribed density tests on filling				
"Modified AASHTO Density" test	No	1		
PAVING .				
Shape S-A interlocking precast concrete paving blocks complying with SANS 1058, with butt joints on 20mm thick river sand bed with sand swept into joints, including preparation of ground or filling				
Paving of 60mm thick blocks	m2	60		
KERBING				
Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing				
Kerb (SABS 927 fig 10) 150 x 300mm high with 150 x 40mm thick 1:6 cement mortar bed and 300 x 200 x 200mm overall 19MPa/19mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	75		
Carried to Callection			D	
Bill No. 4 WALKWAYS (PROVISIONAL)			K	
U F C P II P Sbok P K P S K42hb	illing of 19mm crushed stone, consolidated on floors rescribed density tests on filling Modified AASHTO Density" test AVING hape S-A interlocking precast concrete paving locks complying with SANS 1058, with butt joints no 20mm thick river sand bed with sand swept into bints, including preparation of ground or filling aving of 60mm thick blocks ERBING recast concrete finished smooth on exposed particles including bedding, jointing and pointing erb (SABS 927 fig 10) 150 x 300mm high with 150 x 200mm overall 19MPa/19mm unreinforced concrete aunching at back of each joint including excavation, ackfilling, etc Carried to Collection ill No. 4	illing of 19mm crushed stone, consolidated on floors rescribed density tests on filling Modified AASHTO Density" test No AVING hape S-A interlocking precast concrete paving locks complying with SANS 1058, with butt joints in 20mm thick river sand bed with sand swept into points, including preparation of ground or filling aving of 60mm thick blocks TERBING recast concrete finished smooth on exposed urfaces including bedding, jointing and pointing erb (SABS 927 fig 10) 150 x 300mm high with 150 x 00mm thick 1:6 cement mortar bed and 300 x 200 x 00mm overall 19MPa/19mm unreinforced concrete aunching at back of each joint including excavation, ackfilling, etc Carried to Collection ill No. 4	Inder paved walkway areas It illing of 19mm crushed stone, consolidated In floors In	illing of 19mm crushed stone, consolidated on floors m3 2 rescribed density tests on filling Modified AASHTO Density" test No 1 AVING hape S-A interlocking precast concrete paving locks complying with SANS 1058, with butt joints n 20mm thick river sand bed with sand swept into bints, including preparation of ground or filling aving of 60mm thick blocks m2 60 EERBING recast concrete finished smooth on exposed urfaces including bedding, jointing and pointing erb (SABS 927 fig 10) 150 x 300mm high with 150 x 00mm thick 1:6 cement mortar bed and 300 x 200 x 00mm overall 19MPa/19mm unreinforced concrete aunching at back of each joint including excavation, ackfilling, etc Carried to Collection R

Bill No. 4				
WALKWAYS (PROVISIONAL)			
COLLECTION				
		Page		Amount
		Page No		
Total Brought Forward from P	age No.	86		
		87		
	Summary of Section No. 3		R	
Bill No. 4 WALKWAYS (PROVISIONAI	_)			
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Item No		Quantity	Rate	Amount
	SECTION NO. 3			
	BILL NO. 5			
	LANDSCAPING			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Maintenance period			
	All planted areas shall be maintained for a period of three months after practical completion as defined in the contract with the exception of hydro seeded areas which shall be maintained for 12 months after an acceptable cover has been obtained.			
	This maintenance shall consist of keeping clear of weeds and litter, loosening soil where necessary every two weeks, replacing damaged, diseased or dead plants, pruning, cutting and mowing as necessary and watering so as to keep the plant material in a healthy growing condition.			
	LANDSCAPING			
	Ground preparation			
3/5/1	Cultivation and preparation of areas to be planted m2	198		
	Well sifted topsoil supplied by the contractor, including spreading and levelling			
3/5/2	In plant beds, grassed areas and holes for trees, shrubs, etc m2	198		
	Compost, lime and fertilizer			
3/5/3	Compost in plant beds, holes for trees, shrubs, etc m2	198		
	Carried to Collection		R	
	Bill No. 5 LANDSCAPING			

	Grassing, ground covers, etc			
3/5/4	Instant lawn sods approximately 500 x 500 x 50mm thick m2	198		
	Precast bench			
3/5/5	Allow a PC Sum of R2600/No for installation of the precast concrete bench No	2		
	<u>Maintenance</u>			
3/5/6	Allow for maintaining landscaping for a period of three months after practical completion, including watering, weeding, cutting, replacing dead plants, etc	ltem		
	Carried to Collection		R	_
	Bill No. 5 LANDSCAPING			1

Bill I	No. 5			
LAN	NDSCAPING			
COL	LLECTION			
		Page		Amount
T-4-	al Duan white Farming of fines David Na	Page No		
lota	al Brought Forward from Page No.	89		
		90		
	Carried Forward to Summary of Section No. 3		R	
Bill LAN	No. 5 NDSCAPING			
	04		<u> </u>	

Item No		Quantity	Rate	Amount
	SECTION NO. 3			
	BILL NO. 6			
	<u>FENCING</u>			
	PREAMBLES			
	The contractor is referred to the General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors before pricing this bill.			
	FENCING			
	Removal of existing work			
3/6/1	Removal of existing fence and dispose off site m	538		
	The following in framed and welded steel fencing including fixing in position complete			
3/6/2	1800mm High ClearVu fence or Similar approved including high - strength 2.5m wide mesh panel with a 100mm high and 50mm wide aperture, 70x 44mm H profile and 60 x 60 x 1.6mm hollow square including concrete base and installed according to manufacturers specification			
	m	656		
3/6/3	1200mm (wide) x 2060mm, Singles leaf pedestrian gate.Gate frame shall be made with 50mm x 50mm x 2mm tube with the Nylofor PVC panels secured to the gate frame using mini spider brackets. The support posts shall be 76mm x 76mm x 2mm with support hinges.The locking posts shall be 76mm x 76mm x 2mm. The gates shall be fit with a barrel bolt for locking the gate.All frames and posts shall be HDG then PES coated to match the fence. All fixator components to be stainless steel Grade 304 per ISO 9223, installed as per manufacturers specification.			
	No	1		
	Carried Forward to Summary of Section No. 3		R	
	Bill No. 6 FENCING			

	SECTION SUMMARY - EXTERNAL WORKS	_		
Bill No		Page No		Amount
3/1	BULK EARTHWORKS (PROVISIONAL)	79		
3/2	SEWER RETICULATION (PROVISIONAL)	82		
3/3	WATER RETICULATION (PROVISIONAL)	85		
3/4	WALKWAYS (PROVISIONAL)	88		
3/5	LANDSCAPING	91		
3/6	FENCING	92		
	Carried to Final Summary		R	
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Item No		Quantity	Rate	Amount
	SECTION NO. 4			
	BILL NO. 1			
	ELECTRICAL DISTRIBUTION BOARDS			
	Distribution Board DB-B3 (Three Classroom)			
4/1/1	Supply and install flush mounted distribution board complete with frames, sub-frames, chassis, fixtures, fittings, terminations, busbars and wiring with spare space as per specification as well as security detail. Material and labour excluding the items listed hereunder	1		
	Equipment provided in Distribution Board			
4/1/2	16 Ampere S.P. 6 kA	4		
4/1/3	20 Ampere S.P. 6 kA	9		
4/1/4	63 Ampere S.P. 6 kA	2		
4/1/5	63 Ampere D.P. 6 kA	1		
	Earth Leakage Unit			
4/1/6	63 Ampere single phase 6 kA 30 mA No	2		
	Class 1 Surge Arrestor			
4/1/7	Imax 6kA Surge Arrestor No	1		
	<u>Labels</u>			
4/1/8	Danger sign and labels as specified No	1		
	Carried to Collection		R	
	Bill No. 1			
	ELECTRICAL DISTRIBUTION BOARD			

	Distribution Board DB-GH (Guard House)				٦
4/1/9	Supply and install flush mounted weatherproof distribution board complete with doors, frames, subframes, chassis, fixtures, fittings, terminations, busbars and wiring with spare space as per specification as well as security detail. Material and labour excluding the items listed hereunder	No	1		
	Equipment provided in Distribution Board				
4/1/10	16 Ampere S.P. 6 kA	No	1		
4/1/11	20 Ampere S.P. 6 kA	No	1		
4/1/12	63 Ampere S.P. 6 kA	No	1		
4/1/13	63 Ampere T.P. 6 kA	No	1		
	Earth Leakage Unit				
4/1/14	63 Ampere single phase 6 kA 30 mA	No	1		
	Class 1 Surge Arrestor				
4/1/15	Imax 6kA Surge Arrestor	No	1		
	<u>Labels</u>				
4/1/16	Danger sign and labels as specified	No	1		
	Block A (Existing DB)				
	Supply and install circuit breaker. Material and labour excluding the items listed hereunder				
4/1/17	63 Ampere D.P. 6 kA	No	1		
	Electrical Certificate of Compliance				
4/1/18	Issue Supplementary Electrical Certificate of Compliance for above existing Block-A DB	No	1		
	Compliance for above existing block 71 bb	110	·		
					$\frac{1}{2}$
	Carried to Collection			R	\downarrow
	Bill No. 1 ELECTRICAL DISTRIBUTION BOARD				

Bill No. 1			
ELECTRICAL DISTRIBUTION BOARD			
COLLECTION			
	Page		Amount
Total Brought Forward from Dago No.	No		
Total Brought Forward from Page No.	94		
	95		
Carried Forward to Summary of Section No. 4		R	
Bill No. 1			
ELECTRICAL DISTRIBUTION BOARD			

Item No		Quantity	Rate	Amount
	SECTION NO. 4			
	BILL NO. 2			
	LOW VOLTAGE RETICULATION			
	Low Voltage Cables			
	600/1000V grade PVC/PVC/SWA/PVC stranded copper conductor cable (terminations and earth conductors elsewhere measured) Cable laid in trenching (excavations elsewhere measured)			
4/2/1	16mm² x 2-core m	140		
4/2/2	10mm² x 2-core m	60		
	Cable Terminations complete including glands, shrouds, lugs, connections and commissioning			
4/2/3	16mm² x 2-core No	2		
4/2/4	10mm² x 2-core No	2		
	Bare Stranded Copper Earth Wire strapped to Cables (terminations elsewhere measured)			
4/2/5	10mm² m	140		
4/2/6	6mm² m	60		
	Bare Stranded Copper Earth Wire Terminations complete including drilling, bolting, lugs, connections and commissioning			
4/2/7	16mm² No	2		
4/2/8	6mm ² No	2		
	EXCAVATIONS			
	Carried to Collection		R	
	Bill No. 2 LOW VOLTAGE RETICULATION			

	All excavations, back filling and compaction must be done manually using local labour Excavate for cable and sleeve trench including temporary support of sides, keeping excavations dry, backfilling and compacting to the Engineer's specification				
4/2/9	Pickable Soil	m3	40		
4/2/10	For Soft Rock	m3	20		
4/2/11	For Hard Rock	m3	10		
	CABLE MARKERS				
4/2/12	PVC warning marking tape	m	250		
	MANHOLES				
4/2/13	600 x 600 x 800 mm	No	2		
	SLEEVES				
4/2/14	50mm dia	m	200		
	DRAW WIRE				
4/2/15	Galvanised 1,6mm dia. draw wire Wall boxes as specified placed in position for casting into concrete, building or chased into brickwork including locknuts and bushes	m	250		
4/2/16	300x300mm Draw box with tamper proof cover	No	1		
	Carried to Collection			R	
	Bill No. 2 LOW VOLTAGE RETICULATION				

Bill No. 2			
LOW VOLTAGE RETICULATION			
COLLECTION			
	Page No		Amount
Total Brought Forward from Page No.	97		
	98		
Carried Forward to Summary of Section No. 4		R	
Bill No. 2			
LOW VOLTAGE RETICULATION			

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 3				
	THREE CLASSROOM BLOCK POWER AND LI				
	NOTE:Tenderers are advised to study the pricing the bill.(Complete installation installationon)				
	SMALL POWER AND LIGHTING				
	Conduit and accessories as specified Conduit placed in position for casting into concrete or screed, for building or chased into concrete or brickwork and for surface mounted in ceiling void including bending, threading, jointing, short lengths, draw boxes, couplings, bends, tees and saddles.				
4/3/1	20mm	m	1 000		
4/3/2	25mm	m	50		
	Round conduit box as specified placed in position for casting into concrete, building or chased into brickwork or surface mounted including locknuts and bushes				
4/3/3	60mm deep	No	52		
	Wall boxes as specified placed in position for casting into concrete, building or chased into brickwork including locknuts and bushes Where cavity walls or face brick walls are encountered tenderers must allow to install deep back to back (one end closed) wall boxes				
4/3/4	100 x 50mm	No	17		
4/3/5	100 x 100mm	No	20		
	Carried to Collection			R	
	Bill No. 3 THREE CLASSROOM BLOCK POWER AND LIGHTING				

	Expansion joint boxes as specified placed in position for casting into concrete, building or chased into brickwork including locknuts, bushes and sliding conduit stubs.				
4/3/6	300 x 300mm	No	2		
	CONDUCTORS				
	600/1000V grade PVC insulated stranded copper conductors drawn into conduit				
4/3/7	2,5mm²	m	1 300		
4/3/8	4,0mm²	m	700		
	Bare stranded copper earth conductors drawn into conduits				
4/3/9	2,5mm²	m	1 000		
	POWER OUTLETS				
	Complete with cover plate fixed in flush boxes (boxes elsewhere measured)				
	Socket Outlets				
	16 Ampere round 3-pin 250V grade				
4/3/10	Single switched socket outlet with Euro socket	No	15		
4/3/11	Double switched socket outlet	No	3		
	Light Switches				
4/3/12	16 Ampere 250V grade single lever one way	No	5		
4/3/13	16 Ampere 250V grade single lever two way	No	6		
4/3/14	16 Ampere 250V grade double lever one way	No	6		
	<u>APPLIANCES</u>				
	Surface mounted appliance complete				
4/3/15	16 Ampere photo cell in an empty luminaire	No	1		
	<u>LUMINAIRES</u>				
	Carried to Collection Bill No. 3			R	4
	THREE CLASSROOM BLOCK POWER AND LIGHTING				

	Installed and mounted to round boxes in brickwork or ceiling including all fixings, brackets, supports, connectors, connections and lamps				
4/3/16	Type C - 15W LED, round bulkhead luminaire complete with polycarbonate diffuser and cool white lamp. IP65	No	21		
4/3/17	Type F1 - 1x18W T8 LED, 1200mm surface mounted open channel luminaire complete with cool white lamp.	No	6		
4/3/18	Type F2 - 2x18W T8 LED, 1200mm surface mounted open channel luminaire complete with cool white lamps.	No	3		
4/3/19	Type F4 - 2x22W T8 LED, 1500mm surface mounted open channel luminaire complete with cool white lamps.	No	18		
4/3/20	Type V - 2x22W T8 LED, 1500mm surface mounted luminaire complete with cool white lamps and vapourproof diffuser.	No	3		
	TESTING AND COMMISSIONING				
	Test and commission of the complete				
4/3/21	electrical installation		Item		
					-
	Carried to Collection Bill No. 3			R	=
	THREE CLASSROOM BLOCK POWER AND LIGHTING				

Bill No. 3		
THREE CLASSROOM BLOCK POWER AND LIGHTING		
COLLECTION		
	Page No	Amou
Total Brought Forward from Page No.	100	
	101	
	102	
Carried Forward to Summary of Section No. 4 Bill No. 3		R
THREE CLASSROOM BLOCK POWER AND LIGHTING		

Item No		Quantity	Rate	Amount
	SECTION NO. 4			
	BILL NO. 4			
	GUARD HOUSE SMALL POWER AND LIGHTING			
	NEW GUARD HOUSE			
	Tenderers are advised to study the specification before pricing the bill.(Complete installation: Internal Electrical Installation)			
	SMALL POWER AND LIGHTING			
	Conduit and accessories as specified Conduit placed in position for casting into concrete or screed, for building or chased into concrete or brickwork and for surface mounted in ceiling void including bending, threading, jointing, short lengths, draw boxes, couplings, bends, tees and saddles.			
4/4/1	20mm	m 120		
	Round conduit box as specified placed in position for casting into concrete, building or chased into brickwork or surface mounted including locknuts and bushes			
4/4/2	60mm deep	No 7		
	Wall boxes as specified placed in position for casting into concrete, building or chased into brickwork including locknuts and bushes Where cavity walls or face brick walls are encountered tenderers must allow to install deep back to back (one end closed) wall boxes			
4/4/3	100 x 50mm	No 2		
4/4/4	100 x 100mm	No 2		
	Carried to Collection		R	
	Bill No. 4 GUARD HOUSE SMALL POWER AND LIGHTING			
j			I	

		1			\Box
	Conductors				
	600/1000V grade PVC insulated stranded copper conductors drawn into conduit				
4/4/5	2,5mm²	m	140		
4/4/6	4,0mm²	m	60		
	Bare stranded copper earth conductors drawn into conduits				
4/4/7	2,5mm²	m	100		
	POWER OUTLETS				
	Complete with cover plate fixed in flush boxes (boxes elsewhere measured)				
	Socket Outlets				
	16 Ampere round 3-pin 250V grade				
4/4/8	Single switched socket outlet with 3-pin euro socket	No	1		
4/4/9	Double switched socket outlet	No	1		
	Light Switches				
4/4/10	16 Ampere 250V grade single lever one way	No	2		
	APPLIANCES				
	Surface mounted appliance complete				
4/4/11	16 Ampere photo cell in an empty luminaire	No	1		
	<u>LUMINAIRES</u>				
	Installed and mounted to round boxes in brickwork or ceiling including all fixings, brackets, supports, connectors, connections and lamps				
4/4/12	Type C - 15W LED, round bulkhead luminaire complete with polycarbonate diffuser and cool white lamp. IP65	No	5		
4/4/13	Type F2 - 2x18W T8 LED, 1200mm surface mounted open channel luminaire complete with cool white lamps.	No	1		
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	Carried to Collection			R	
	Bill No. 4 GUARD HOUSE SMALL POWER AND LIGHTING				 П
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	TESTING AND COMMISSIONING			
	Test and commission of the complete			
4/4/14	Electrical installation	Item		
	Carried to Collection		R	
	Bill No. 4 GUARD HOUSE SMALL POWER AND LIGHTING			

Bill No. 4				
GUARD HOUSE S	SMALL POWER AND LIGHTING			
COLLECTION				
		Page No		Amount
Total Brought Forw	vard from Page No.	104		
		105		
		106		
Carried Bill No. 4	Forward to Summary of Section No. 4		R	
	SMALL POWER AND LIGHTING			

Item No		Quantity	Rate	Amount
	SECTION NO. 4			
	BILL NO. 5			
	PROVISIONAL SUMS			
4/5/1	Earthing and Lightning Protection System	Item		22 500.00
4/5/2	Add profit & attendance for above item		SUM	
4/5/3	Modification of existing main DB	Item		5 000.00
4/5/4	Add profit & attendance for above item		SUM	
4/5/5	Floodlights	Item		10 000.00
4/5/6	Add profit & attendance for above item		SUM	
	Carried Forward to Summary of Section No. 4 Bill No. 5		R	
	PROVISIONAL SUMS			

	SECTION SUMMARY - ELECTRICAL			
Bill No		Page No		Amount
4/1	ELECTRICAL DISTRIBUTION BOARD	96		
4/2	LOW VOLTAGE RETICULATION	99		
4/3	THREE CLASSROOM BLOCK POWER AND LIGHTING	103		
4/4	GUARD HOUSE SMALL POWER AND LIGHTING	107		
4/5	PROVISIONAL SUMS	108		
	Occurred to First Occurre			
	Carried to Final Summary		R	

Item No		Quantity	Rate	Amount
	SECTION NO. 5			
	BILL NO. 1			
	FIRE AND DIRECTIONAL SIGNAGE			
	Photo luminescent fire and directional signage in multiples of 190 x 190mm as SANS 1186 - 1&5 photo luminescent, installed in accordance with SANS 10400 and framed with standard aluminium moulding and mounted with concealed screws to brickwork or concrete.			
5/1/1	Directional signage type E1.	1		
5/1/2	Directional signage type E2	1		
5/1/3	Directional signage type E3.	7		
5/1/4	Fire signage type F4. No	1		
5/1/5	Fire signage type F13 No	3		
	FIRE APPLIANCES ETC.			
5/1/6	"Chubb" hose reel complete with control valve, 30m length of 20mm red reinforced hose, nozzlecock and bracket, all mounted on strongly constructed wall bracket complete with bolts grouted in and including mortices in wall and joint to steel pipes No	1		
5/1/7	"Chubb" 4.5kg DCP fire extinguisher on and including hardwood backboard plugged, screwed and plugged to wall.	7		
5/1/8	"Chubb" 5kg CO2 fire extinguisher on and including hardwood backboard plugged, screwed and plugged to wall. No	2		
	FIRE SUPPLIES			
	Carried to Collection		R	
	Bill No. 1 FIRE PROTECTION			
	TIMETROTEOTION			

	Fire reticulation shall be installed in accordance with SANS 1200 series of specifications, and pipe bedding shall be Class B SANS 1200 LB.				
	Class 16 (SANS 966) uPVC pressure pipes: Extra over HDPE pressure pipes for the following Class 16 uPVC pressure fittings:				
5/1/9	25mm pipe fitings	Lot	1		
	Medium class galvanised mild steel pipe according to SANS 62-1 with threaded connections including straight sockets in running lengths:				
5/1/10	25mm pipe	m	10		
5/1/11	25mm pipe fitings	Lot	1.00		
5/1/12	'Densyl Tape: Wrapping around 100mm pipe including fittings.				
	mungs.	Lot	1.00		
	Carried to Collection			R	
	Bill No. 1 FIRE PROTECTION				
	TINETROTECTION				

Bill No. 1		
FIRE PROTECTION		
COLLECTION		
	Page	Amou
Total Brought Forward from Page No.	No 110	
	111	
Carried Forward to Summary of Section No. 5 Bill No. 1		R
FIRE PROTECTION		

SECTION NO. 5 BILL NO. 2 PROVISIONAL SUMS 5/2/1 Allow the amount for electrical installation and wiring, complete for fire protection equipment as well as for adjustment of Mechanical engineering services to be used at the discretion of the principal agent and deducted in whole or in part if not required. 5/2/2 Add profit & Attendance SUM Carried Forward to Summary of Section No. 5 R	Item No		Quantity	Rate	Amount
PROVISIONAL SUMS 5/2/1 Allow the amount for electrical installation and wiring, complete for fire protection equipment as well as for adjustment of Mechanical engineering services to be used at the discretion of the principal agent and deducted in whole or in part if not required. 5/2/2 Add profit & Attendance SUM Carried Forward to Summary of Section No. 5		SECTION NO. 5			
S/2/1 Allow the amount for electrical installation and wiring, complete for fire protection equipment as well as for adjustment of Mechanical engineering services to be used at the discretion of the principal agent and deducted in whole or in part if not required. SUM S/2/2 Add profit & Attendance Carried Forward to Summary of Section No. 5 R		BILL NO. 2			
complete for fire protection equipment as well as for adjustment of Mechanical engineering services to be used at the discretion of the principal agent and deducted in whole or in part if not required. 5/2/2 Add profit & Attendance SUM Carried Forward to Summary of Section No. 5		PROVISIONAL SUMS			
Carried Forward to Summary of Section No. 5	5/2/1	complete for fire protection equipment as well as for adjustment of Mechanical engineering services to be used at the discretion of the principal agent and	Item		3 500.00
	5/2/2	Add profit & Attendance		SUM	
Bill No. 2		Carried Forward to Summary of Section No. 5 Bill No. 2		R	
PROVISIONAL SUMS					

	SECTION SUMMARY - MECHANICAL INSTALLATION			
Bill No	SECTION COMMANY - MECHANICAL INCTALLATION	Page No		Amount
5/1	FIRE PROTECTION	112		
5/2	PROVISIONAL SUMS	113		
	Carried to Final Summary		R	

Item No		Quantity	Rate	Amount
	SECTION 6			
	PROVISIONAL SUMS			
	1.The following sums and amounts are NET.			
	3. Unless a specific percentage mark-up for Attendance is indicated in a rate column, the amount priced by the Contractor for Attendance against each Provisional Sum shall be deemed to be the Lump Sum and shall not be adjusted unless the scope of the sub contract varies significantly.			
	4. Provisional Sums contained here-in may be omitted or reduced at the employer's sole discretion and the Contractor shall not be entitled to claim for any loss by way of reductions or omissions or any discount, or percentage relating to Provisional Sums or PC amounts or any loss of profit related thereto.			
	FIXED FURNITURE, LOOSE FURNITURE AND JOINERY FITTINGS			
6/1/1	Provide the sum of R350 000.00 (Three Hundred and Fifty Thousand Rand) for fixed furniture, loose furniture and joinery fittings installed complete.	Item		350 000 00
6/1/2	Profit on above item	Item		
6/1/3	Attendance on ditto	Item		
	JUNGLE GYM			
6/1/4	Provide the sum of R50 000.00 (Fifty Thousand Rand) for jungle gym installed complete.	Item		50 000,00
6/1/5	Profit on above item	Item		
6/1/6	Attendance on ditto	Item		
	Carried to Collection Bill No. 1 PROVISIONAL SUMS		R	

	COMMUNITY LIAISON OFFICER		
6/1/7	Provide the amount of R 99,000.00 (Sixty Five Thousand Rands) for employment of Community Liaison Officer. (Allowance for R 9 000.00 per month for 11 months)	Item	99 000.00
6/1/8	Attendance on above item	Item	
	Carried to Collection		R
	Bill No. 1 PROVISIONAL SUMS		

Bill No. 1		
PROVISIONAL SUMS		
COLLECTION		
	Page No	Amount
Total Brought Forward from Page No.	115	
	116	
Carried to Final Summary		R
Bill No. 1 PROVISIONAL SUMS		

	FINAL SUMMARY	_		
Section No		Page No		Amount
1	PRELIMINARY & GENERAL	29		
2	BUILDING WORKS	76		
3	EXTERNAL WORKS	93		
4	ELECTRICAL	109		
5	MECHANICAL INSTALLATION	114		
6	PROVISIONAL SUMS	117		
	SUBTOTAL		R	
	CONTINGENCIES			
	The tenderer shall add 10% of the works including preliminaries as Contingency Amount for the unforeseen and the sum provided is under the sole control of the client and upon approval by the Client Representative and deducted in whole or in part.	Item		
	SUBTOTAL		R	
	VAT at the rate of 15%		R	
	Carried to Form of Offer		R	