PART 1

Item No		Quantity	Rate	Amount
	BILL NO. 1			
	PRELIMINARIES AND GENERAL			
	MEANING OF TERMS "TENDER / TENDERER"			
	Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"			
	PRELIMINARIES			
	The JBCC® General Preliminaries (June 2024) for use with the JBCC® Principal Building Agreement, Edition 6.2 (June 2024) are deemed to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked "N/A" signifying "Not Applicable"			
	PRICING OF PRELIMINARIES			
	Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item			
	Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities			
	Carried Forward		R	

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	Brought Forward		R	
	SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT			
	DEFINITIONS			
1/1/1	**A1.0 DEFINITIONS AND INTERPRETATION**			
	Clause 1.0			
	Clause 1.1 Definition of "**Commencement Date**" is added:			
	"**COMMENCEMENT DATE**" means the date that the **agreement**, made in terms of the Form of Offer and Acceptance, comes into effect			
	Clause 1.1 Definition of "**Construction Guarantee**" is amended by replacing it with the following:			
1/1/2	**"CONSTRUCTION GUARANTEE"** means a guarantee at call obtained by the **contractor** from an institution approved by the **employer** in terms of the **employer's** construction guarantee form as selected in the **schedule**	Item		
	Clause 1.1 Definition of "**Construction Period**" is amended by replacing it with the following:			
	"**CONSTRUCTION PERIOD**" means the period commencing on the **commencement date** and ending on the date of **practical completion**			
	Clause 1.1 Definition of "**Corrupt Practice**" is added:			
	"**CORRUPT PRACTICE**" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution			
	Clause 1.1 Definition of "**Fraudulent Practice**" is added:			
	Carried Forward		R	

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	"**FRAUDULENT PRACTICE**" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition			
	Clause 1.1 Definition of "**Interest**" is amended by replacing it with the following:			
	"**INTEREST"** means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999)			
	Clause 1.1 Definition of "**Principal Agent**" is amended by replacing it with the following:			
	"**PRINCIPAL AGENT**" means the person or entity appointed by the **employer** and named in the **schedule**. In the event of a **principal agent** not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by a representative of the **employer** as named in the **schedule**			
	Clause 1.1 Definition of "**Security**" is amended by replacing it with the following:			
	"**SECURITY**" means the form of security provided by the **employer** or **contractor**, as stated in the **schedule**, from which the **contractor** or **employer** may recover expense or loss			
	Clause 1.6 is amended by replacing the words "prepaid registered post, telefax or e-mail" with "prepaid registered post or telefax"			
	Clause 1.6.4 is amended by replacing it with the following:			
	Carried Forward		R	

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	No clause Fixed:_____ Value related:_____ Time related:_____	Item		
	OBJECTIVE AND PREPARATION			
1/1/3	**A2.0 OFFER, ACCEPTANCE AND PERFORMANCE** Clause 2.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/4	**A3.0 DOCUMENTS** Clause 3.0 Clause 3.2.1 is amended by replacing"14.1" with "14.0" Clause 3.7 is amended by the addition of the following: The **contractor** shall supply and keep a copy of the **JBCC** Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the **site**, to which the **employer, principal agent** and **agents** shall have access at all times Clause 3.10 is amended by replacing the second reference to "**principal agent**" with the word "**employer**" Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/5	**A4.0 DESIGN RESPONSIBILITY** Clause 4.0 Clause 4.3 is amended by replacing it with the following: No clause Fixed:_____ Value related:_____ Time related:_____	Item		
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1/1/6	**A5.0 EMPLOYER'S AGENTS** Clause 5.0 Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/7	**A6.0 SITE REPRESENTATIVE** Clause 6.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/8	**A7.0 COMPLIANCE WITH REGULATIONS** Clause 7.0 Note: A separate clause has been included in Section C : Specific Preliminaries of the **bills of quantities / lump sum document** for the **contractor** to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/9	**A8.0 WORKS RISK** Clause 8.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/10	**A9.0 INDEMNITIES** Clause 9.0 Fixed:_____ Value related:_____ Time related:_____	Item		
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	Brought Forward		R	
1/1/11	**A10.0 WORKS INSURANCES**			
	Clause 10.0			
	Clause 10.0 is amended by the addition of the following clauses:	Item		
	10.5 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) The **employer** shall carry the risk of damage to or destruction of the **works** and materials paid for by the **employer** that is the result of the excepted risks as set out in 10.6			
	(d) Where the **employer** bears the risk in terms of this contract, the **contractor** shall**,** if requested to do so, reinstate any damage or destroyed portions of the **works** and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof			
	Carried Forward		R	

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	10.6 Injury to Persons or loss of or damage to Properties			
	(a) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable			
	(b) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable			
	(c) The **contractor** shall, upon receiving a **contract instruction** from the **principal agent,** cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **contractor** or to deduct the same from amounts due to the **contractor**			
	(d) The **contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **employer** for the purpose of executing the **works** until the issue of the **certificate of practical completion**			
	Carried Forward		R	

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(e)	Where the execution of the **works** involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor** shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed			
(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**			
	10.7 High risk insurance			
	In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:			
	10.7.1 Damage to the works			
	The **contractor** shall, from the **commencement date** of the **works** until the date of the **certificate of practical completion** bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary			
	When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**, at the **contractor's** own costs			
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	10.7.2 Injury to persons or loss of or damage to property The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of, or caused by a catastrophic ground movement as mentioned above The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract **10.7.3** It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty-one (21) **calendar days** of the **commencement date** but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so **10.7.4** The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole Fixed:_____ Value related:_____ Time related:_____	Item		
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1/1/12	**A11.0 LIABILITY INSURANCES** Clause 11.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/13	**A12.0 EFFECTING INSURANCES** Clause 12.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/14	**A13.0 *No clause***	N/A		
1/1/15	**A14.0 SECURITY** Clause 14.0 Clauses 14.1 - 14.8 are amended by replacing them with the following: 14.1 In respect of contracts with a **contract sum** up to R1 million, the **security** to be provided by the **contractor** to the **employer** will be a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) 14.1.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A) 14.1.2 The **employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the payment reduction **security** or portions thereof to the **contractor**			
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	14.2 In respect of contracts with a **contract sum** above R1 million, the **contractor** shall have the right to select the **security** to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the **schedule**. Such **security** shall be provided to the **employer** within twenty-one (21) **calendar days** from **commencement date**. Should the **contractor** fail to select the **security** to be provided or should the **contractor** fail to provide the **employer** with the selected **security** within twenty-one (21) **calendar days** from **commencement date**, the **security** in terms of 14.7 shall be deemed to have been selected 14.3 Where **security** as a cash deposit of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected: 14.3.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date** 14.3.2 Within twenty-one (21) **calendar days** of the date of **practical completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to three per cent (3%) of the **contract value** (excluding VAT), and refund the balance to the **contractor** 14.3.3 Within twenty-one (21) **calendar days** of the date of **final completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to one per cent (1%) of the **contract value** (excluding VAT) and refund the balance to the **contractor** 14.3.4 On the date of payment of the amount in the final **payment certificate**, the **employer** shall refund the remainder of the cash deposit to the **contractor** 14.3.5 The **employer** shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the cash deposit **security** or portions thereof to the **contractor** 14.3.6 The parties expressly agree that neither the **employer** nor the **contractor** shall be entitled to cede the rights to the deposit to any third party			
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	14.4 Where **security** as a variable **construction guarantee** of ten percent (10%) of the **contract sum** (excluding VAT) has been selected: 14.4.1 The **contractor** shall furnish the **employer** with an acceptable variable **construction guarantee** equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date** 14.4.2 The variable **construction guarantee** shall reduce and expire in terms of the Variable **Construction Guarantee** form included in the invitation to tender 14.4.3 The **employer** shall return the variable **construction guarantee** to the **contractor** within fourteen (14) **calendar days** of it expiring 14.4.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall issue a written demand in terms of the variable **construction guarantee** 14.5 Where **security** as a fixed **construction guarantee** of five per cent (5%) of the **contract sum** (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the **payment certificate** (excluding VAT) has been selected: 14.5.1 The **contractor** shall furnish a fixed **construction guarantee** to the **employer** equal in value to five per cent (5%) of the **contract sum** (excluding VAT) 14.5.2 The fixed **construction guarantee** shall come into force on the date of issue and shall expire on the date of the last certificate of **practical completion** 14.5.3 The **employer** shall return the fixed **construction guarantee** to the **contractor** within fourteen (14) **calendar days** of it expiring 14.5.4 The payment reduction of the value certified in a **payment certificate** shall be in terms of 31.8 (A) and 34.8			
	Carried Forward		R	
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	Brought Forward		R	
	14.5.5 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall be entitled to issue a written demand in terms of the fixed **construction guarantee** or may recover from the payment reduction or may do both			
	14.6 Where **security** as a cash deposit of five per cent (5%) of the **contract sum** (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) has been selected:			
	14.6.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to five per cent (5%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**			
	14.6.2 Within twenty-one (21) **calendar days** of the date of **practical completion** of the **works** the **employer** shall refund the cash deposit in total to the **contractor**			
	14.6.3 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)			
	14.6.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both			
	14.7 Where **security** as a payment reduction of ten per cent (10%) of the value certified in the **payment certificate** (excluding VAT) has been selected:			
	14.7.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(B)			
	14.7.2 The **employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the **contractor**			
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	14.8 Payments made by the guarantor to the **employer** in terms of the fixed or variable **construction guarantee** shall not prejudice the rights of the **employer** or **contractor** in terms of this **agreement**			
	14.9 Should the **contractor** fail to furnish the **security** in terms of 14.2, the **employer**, in his sole discretion and without notification to the **contractor**, is entitled to change the **contractor's** selected form of **security** to that of a ten per cent (10%) payment reduction of the value certified in the **payment certificate** (excluding VAT), whereafter 14.7 shall be applicable			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	EXECUTION			
1/1/16	**A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS**			
	Clause 15.0			
	Clause 15.1.1 is amended by replacing it with:			
	No clause			
	Clause 15.1.2 is amended by replacing it with:			
	The **security** selected in terms of 14.0			
	Clause 15.1 is amended by the addition of the following clause:			
	15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) **calendar days** of **commencement date**			
	Price in accordance with the specifications and pricing conditions contained in the **employer's** health and safety specification. C2.1 - Pricing Instructions - Item 13 - Pricing Instructions for Health and Safety			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	

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	Clause 15.2.1 is amended by replacing it with the following clause: Give the **contractor** possession of the **site** within ten (10) **working days** of the **contractor** complying with the terms of 15.1.4 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/17	**A16.0 ACCESS TO THE WORKS** Clause 16.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/18	**A17.0 CONTRACT INSTRUCTIONS** Clause 17.0 Clause 17.1.11 is amended by deleting the words "and the appointment of **nominated** and **selected subcontractors**" Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/19	**A18.0 SETTING OUT OF THE WORKS** Clause 18.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/20	**A19.0 ASSIGNMENT** Clause 19.0 Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/21	**A20.0 NOMINATED SUBCONTRACTORS** Clause 20.0 Clause 20.1.3 is amended by replacing it with the following: No clause Note: See item B9.1 hereinafter for adjustment of attendance on **nominated subcontractors** executing work allowed for under provisional sums Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/22	**A21.0 SELECTED SUBCONTRACTORS** Clause 21.0 Clause 21 is amended by replacing it with: No clause Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/23	**A22.0 EMPLOYER'S DIRECT CONTRACTORS** Clause 22.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/24	**A23.0 CONTRACTOR'S DOMESTIC SUBCONTRACTORS** Clause 23.0 Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
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	Brought Forward		R	
	COMPLETION			
1/1/25	**A24.0 PRACTICAL COMPLETION**			
	Clause 24.0			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/26	**A25.0 WORKS COMPLETION**			
	Clause 25.0			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/27	**A26.0 FINAL COMPLETION**			
	Clause 26.0			
	Clause 26.1.2 is amended by inserting "#" next to 26.1.2			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/28	**A27.0 LATENT DEFECTS LIABILITY PERIOD**			
	Clause 27.0			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/29	**A28.0 SECTIONAL COMPLETION**			
	Clause 28.0			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/30	**A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION** Clause 29.0 Clause 29.2.5 is amended by replacing it with: No clause Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/31	**A30.0 PENALTY FOR NON-COMPLETION** Clause 30.0 Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	

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	Brought Forward		R	
	PAYMENT			
1/1/32	**A31.0 INTERIM PAYMENT TO THE CONTRACTOR**			
	Clause 31.0			
	Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"			
	Clause 31.8 is amended by replacing it with the following two alternative clauses:			
	Alternative A			
	31.8(A) Where a **security** is selected in terms of 14.1; 14.5 or 14.6, the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:			
	31.8(A).1 Ninety-five per cent (95%) of such value in interim **payment certificates** issued up to the date of **practical completion**			
	31.8(A).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date of **final completion**			
	31.8(A).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6			
	31.8(A).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**			
	Alternative B			
	Carried Forward		R	

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	31.8(B) Where **security** as a payment reduction in terms of 14.7 has been selected, the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(B).1 Ninety per cent (90%) of such value in interim **payment certificates** issued up to the date of **practical completion** 31.8(B).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date of **final completion** 31.8(B).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6 31.8(B).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate** Clause 31.12 is amended by deleting the following: Payment shall be subject to the **employer** giving the **contractor** a tax invoice for the amount due Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/33	**A32.0 ADJUSTMENT TO THE CONTRACT VALUE** Clause 32.0 Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence: "due to no fault of the **contractor"** Fixed:_____ Value related:_____ Time related:_____	Item		
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1/1/34	**A33.0 RECOVERY OF EXPENSE AND LOSS** Clause 33.0 Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/35	**A34.0 FINAL ACCOUNT AND FINAL PAYMENT** Clause 34.0 Clause 34.1 is amended by removing "#" next to 34.1 Clause 34.2 is amended by inserting "#" next to 34.2 Clause 34.8 is amended by deleting the words "where **security** as a fixed **construction guarantee** in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1" Clause 34.13 is amended by replacing "seven (7) **calendar days"** with "twenty-one (21) **calendar days"** and deleting the words "subject to the **employer** giving the **contractor** a tax invoice for the amount due" Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/36	**A35.0 PAYMENT TO OTHER PARTIES** Clause 35.0 Fixed:_____ Value related:_____ Time related:_____	Item		
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	Brought Forward		R	
	CANCELLATION			
1/1/37	**A36.0 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT** Clause 36.0 Clause 36.1 is amended by the addition of the following clauses: 36.1.3 refuses or neglects to comply strictly with any of the conditions of contract 36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa 36.1.5 in the judgement of the **employer**, has engaged in **corrupt** or **fraudulent practices** in competing for or in executing the contract Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "**principal agent"** with "**employer"** Clause 36.0 is amended by the addition of the following clause: 36.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/38	**A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE** Clause 37.0 Clause 37.3.5 is amended by replacing "ninety (90)" with "one hundred and twenty (120)"			
	Carried Forward		R	

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	Brought Forward		R	
	Clause 37.0 is amended by the addition of the following clause: 37.5 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/39	**A38.0 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT** Clause 38.0 Clause 38.5.4 is amended by replacing "ninety (90)" with "one hundred and twenty (120)" Clause 38.0 is amended by the addition of the following clause: 38.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/40	**A39.0 CANCELLATION - CESSATION OF THE WORKS** Clause 39.0 Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one hundred and twenty (120) **working days** of completion of such a report" Fixed:_____ Value related:_____ Time related:_____	Item		
	DISPUTE			
1/1/41	**A40.0 DISPUTE SETTLEMENT** Clause 40.0 Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years" Clause 40.6 is amended by removing the reference to: No clause Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following: Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the **mediator** and related costs Fixed:_____ Value related:_____ Time related:_____	Item		
	SUBSTITUTE PROVISIONS			
1/1/42	**A41.0 STATE CLAUSES** Clause 41.0 Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	

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	Brought Forward		R	
	CONTRACT VARIABLES			
1/1/43	**A42.0 THE SCHEDULE**			
	Clause 42.0			
	Tenderers are referred to C1.2 - Contract Data for variables pertaining to this contract			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	SECTION B: JBCC PRELIMINARIES			
	B1.0 DEFINITIONS AND INTERPRETATION			
1/1/44	***B1.1 Definitions and interpretation***			
	See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B2.0 DOCUMENTS			
1/1/45	***B2.1 Checking of documents***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/46	***B2.2 Provisional bills of quantities***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/47	***B2.3 Availability of construction documentation***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/48	***B2.4 Interests of agents***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
1/1/49	***B2.5 Priced documents***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/50	***B2.6 Tender submission***			
	Clause 2.6 is amended by replacing "JBCC Form of Tender" with "C1.1 - Form of Offer and Acceptance"			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B3.0 THE SITE			
1/1/51	***B3.1 Defined works area***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/52	***B3.2 Geotechnical investigation***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/53	***B3.3 Inspection of the site***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/54	***B3.4 Existing premises occupied***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/55	***B3.5 Previous work - dimensional accuracy***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/56	***B3.6 Previous work - defects***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/57	***B3.7 Services - known***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/58	***B3.8 Services - unknown***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/59	***B3.9 Protection of trees***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/60	***B3.10 Articles of value***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/61	***B3.11 Inspection of adjoining properties***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B4.0 MANAGEMENT OF CONTRACT			
1/1/62	***B4.1 Management of the works***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/63	***B4.2 Programme for the works***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/64	***B4.3 Progress meetings***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/65	***B4.4 Technical meetings***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
1/1/66	***B4.5 Labour and plant records***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS			
1/1/67	***B5.1 Samples of materials***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/68	***B5.2 Workmanship samples***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/69	***B5.3 Shop drawings***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/70	***B5.4 Compliance with manufacturers' instructions***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B6.0 TEMPORARY WORKS AND PLANT			
1/1/71	***B6.1 Deposits and fees***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/72	***B6.2 Enclosure of the works***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/73	***B6.3 Advertising***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
1/1/74	***B6.4 Plant, equipment, sheds and offices***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/75	***B6.5 Main notice board***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/76	***B6.6 Subcontractors' notice board***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B7.0 TEMPORARY SERVICES			
1/1/77	***B7.1 Location***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/78	***B7.2 Water***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/79	***B7.3 Electricity***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/80	***B7.4 Telecommunication facilities***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/81	***B7.5 Ablution facilities***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B8.0 PRIME COST AMOUNTS			
1/1/82	***B8.1 Responsibility for prime cost amounts***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
	B9.0 ATTENDANCE ON N/S SUBCONTRACTORS			
1/1/83	***B9.1 General attendance***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/84	***B9.2 Special attendance***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/85	***B9.3 Commissioning - fuel, water and electricity***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B10.0 FINANCIAL ASPECTS			
1/1/86	***B10.1 Statutory taxes, duties and levies***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/87	***B10.2 Payment for preliminaries***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/88	***B10.3 Adjustment of preliminaries***			
	Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) **working days** of taking possession of the **site**" with "when submitting his priced **bills of quantities / lump sum document"**			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/89	***B10.4 Payment certificate cash flow***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
	B11.0 GENERAL			
1/1/90	***B11.1 Protection of the works***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/91	***B11.2 Protection / isolation of existing / sectionally occupied works***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/92	***B11.3 Security of the works***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/93	***B11.4 Notice before covering work***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/94	***B11.5 Disturbance***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/95	***B11.6 Environmental disturbance***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/96	***B11.7 Works cleaning and clearing***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/97	***B11.8 Vermin***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/98	***B11.9 Overhand work***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
1/1/99	***B11.10 Instruction manuals and guarantees***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/100	***B11.11 As built information***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
1/1/101	***B11.12 Tenant installations***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	B12.0 SCHEDULE OF VARIABLES			
1/1/102	***B12.1 Schedule of variables***			
	Fixed:_____ Value related:_____ Time related:_____	Item		
	This **schedule** contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these **Preliminaries**			
	Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the **schedule**. Key cross reference clauses are italicised in *[ ]* brackets			
	12.1 PRE-TENDER INFORMATION			
	12.1.1 **Provisional bills of quantities** *[2.2]* The quantities are provisional *YES*			
	12.1.2 **Availability of construction documentation** *[2.3] Construction documentation is complete* *NO*			
	Carried Forward		R	

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	Brought Forward		R	
	12.1.3 ***Interests of agents*** *[2.4]* Details: NIL			
	12.1.4 ***Defined works area*** *[3.1]* Details: As per Architect's detail			
	12.1.5 ***Geotechnical investigation*** *[3.2]* Details: Available on request from the Engineer			
	12.1.6 ***Existing premises occupied*** *[3.4]* Specific requirements: Not Applicable			
	12.1.7 ***Previous work - dimensional accuracy*** *[3.5]* Details: Building Platforms, Retaining Walls and Bulk Infrastructure by Others			
	12.1.8 ***Previous work - defects*** *[3.6]* Details: As above item			
	12.1.9 ***Services - known*** *[3.7]* Details: Details available on request from the Engineer			
	12.1.10 ***Protection of trees*** *[3.9]* Specific requirements: Not applicable			
	12.1.11 ***Inspection of adjoining properties*** *[3.11]* Specific requirements: Contractor carry out their own inspection and report if they identify any concerns			
	12.1.12 ***Enclosure of the works*** *[6.2]* Specific requirements:			
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
12.1.13	***Offices***			
[6.4.3]	Specific requirements: The **contractor** shall provide, maintain and remove on completion of the works an office for the exclusive use of the **principal agent**, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times			
12.1.14	***Main notice board***			
[6.5]	Specific requirements: The **contractor** shall provide, erect where directed, maintain and remove on completion of the **works** a notice board size 2.4 x 2.4m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering			
12.1.15	***Subcontractors' notice board***			
[6.6]	*A notice board is required* *YES* Specific requirements: Drawing to be issued			
12.1.16	***Water***			
[7.2]	Option A (by **contractor**) *YES* Option B (by **employer** - free of charge) *NO* Option C (by **employer** - metered) *NO*			
	Carried Forward		R	

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	Brought Forward		R	
	12.1.17 ***Electricity*** *[7.3]* Option A (by **contractor**) *YES* Option B (by **employer** - free of charge) *NO* Option C (by **employer** - metered) *NO* 12.1.18 ***Telecommunications*** *[7.4]* Telephone - BY CONTRACTOR *YES* Facsimile - BY CONTRACTOR *YES* E-mail - BY CONTRACTOR *YES* 12.1.19 ***Ablution facilities*** *[7.5]* Option A (by **contractor**) *YES* Option B (by **employer**) *NO* 12.1.20 ***Protection of existing/sectionally occupied works*** *[11.2]* Protection is required NO 12.1.21 ***Special attendance*** *[9.2]* *Not Applicable* 12.1.22 ***Protection of the works*** *[11.1]* Specific requirements: Not Applicable			
	Carried Forward		R	
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	Brought Forward		R	
	12.1.23 ***Disturbance*** *[11.5]* Specific requirements: The **contractor** shall keep the site, structures, well watered during operations to prevent dust and shall provide and erect and remove on completion of the **works** all necessary temporary dust screens all to the satisfaction of the **principal agent**			
	12.1.24 ***Environmental disturbance*** *[11.6]* Specific requirements: See Environmental Management Plan available upon request from Zutari Consulting Engineers			
	12.2 POST-TENDER INFORMATION			
	12.2.1 ***Payment of preliminaries*** *[10.2]* Option A (prorated) *NO* Option B (calculated) *YES*			
	12.2.2 ***Adjustment of preliminaries*** *[10.3]* Option A (three categories) *NO* Option B (detailed breakdown) *YES*			
	12.2.3 ***Additional agreed preliminaries items*** Details: NIL			
	SECTION C: SPECIFIC PRELIMINARIES			
	Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item			
	Carried Forward		R	
	Section No. 1 Bill No. 1			

	Brought Forward		R	
1/1/103	**C1.0 CONTRACT DRAWINGS** The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the **principal agent** Fixed: _____ Value related:_____ Time related:_____	Item		
1/1/104	**C2.0 GENERAL PREAMBLES** Specification of Materials and Methods to be used hall be read in conjunction with the **bills of quantities /lump sum document** and be referred to for the full descriptions of work to be done and materials to be used Fixed: _____ Value related:_____ Time related:_____	Item		
	<u>GENERAL PREAMBLES</u> *The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated descriptions utilised in these bills of quantities by inter alia referring to SANS construction standards.* ***<u>Where such preambles are not applicable</u>*** *(eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the Standard System of Measuring Building Work (seventh edition) for works within South Africa or the Standard Method of Measuring Building Work for Africa 2015 (first edition) for works elsewhere in Africa, represent the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications*			
	Carried Forward		R	

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	Brought Forward		R	
1/1/105	**C3.0 TRADE NAMES** Wherever a trade name for any product has been described in the **bills of quantities / lump sum document**, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the **principal agent** being obtained prior to the closing date for submission of tenders If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for Fixed: _____ Value related:_____ Time related:_____	Item		
1/1/106	**C4.0 IMPORTED MATERIALS AND EQUIPMENT** Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment to be completed by tenderer) Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable) Fixed: _____ Value related:_____ Time related:_____	Item		
	Carried to Final Summary		R	
	Section No. 1 Bill No. 1			

Item No		Quantity	Rate	Amount
	BILL NO. 1			
	ALTERATIONS (PROVISIONAL)			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 102 for Contract Price Adjustment Provisions			
	SUPPLEMENTARY PREAMBLES			
	View site			
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained			
	Explosives			
	All demolitions are to be done by hand and no explosives whatsoever may be used for demolition purposes unless otherwise stated			
	General			
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent			
	Carried Forward		R	

	Brought Forward		R	
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent			
	Doors, fanlights, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately			
	Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc			
	Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing			
	With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork			
	Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary			
	The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)			
	Salvaging			
	The contractor is to note that all removed salvagable building materials are to remain the property of the user client			
	Carried Forward		R	
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	Brought Forward			R	
	All salvaged building materials are to handed over to user client and the remaining building rubble and demolished waste is be removed from site by the contractor and rates should allow for carting away of such rubble and waste.				
	TEMPORARY BARRIERS, SCREENS, ETC				
	Temporary barriers, screens, etc including removal				
2/1/1	Temporary construction site barriers suitable to prevent enchroachment of pedestrians and vehicles onto the site	m	548		
	REMOVAL OF EXISTING WORK				
	Breaking up and removing reinforced concrete, including cutting off and removing reinforcement				
2/1/2	85mm Thick surface bed, aprons and slabs	m2	238		
2/1/3	110mm Thick surface bed	m2	59		
2/1/4	Reinforced concrete	m3	10		
2/1/5	500 x 250mm Thick concrete footing	m	51		
2/1/6	Copings, channels, etc not exceeding 300mm girth	m	9		
	Breaking down and removing brickwork etc				
2/1/7	Mass brickwork	m3	58		
2/1/8	Half brick walls	m2	50		
2/1/9	One brick walls	m2	174		
2/1/10	274mm Cavity walls of two half brick skins	m2	14		
	Taking down and removing roofs, floors, etc				
2/1/11	Gypsum plasterboard ceilings	m2	297		
2/1/12	Gypsum plasterboard bulkhead ceiling 1000 x 8600mm high including support framework	m	125		
	Carried Forward			R	
	Section No. 2 Bill No. 1				

	Brought Forward			R	
	Taking out and removing doors, windows, etc from walls to be demolished				
2/1/13	Timber single door and frame not exceeding 2,5m2	No	20		
2/1/14	Timber double door and frame exceeding 2,5m2	No	4		
2/1/15	Glazed steel window and burglar proofing not exceeding 2,5m2	No	8		
	Taking out and removing doors, windows, etc including thresholds, sills, etc (altering or building up openings elsewhere measured)				
2/1/16	Timber single door and frame not exceeding 2,5m2	No	5		
2/1/17	Timber double door and frame exceeding 2,5m2	No	5		
2/1/18	Glazed steel doors and burglar proofing exceeding 2,5m2 and not exceeding 5m2	No	7		
2/1/19	Glazed steel window and burglar proofing not exceeding 2,5m2	No	5		
2/1/20	Glazed steel window and burglar proofing exceeding 2,5m2 and not exceeding 5m2	No	4		
	Taking out/off and removing sundry metalwork				
2/1/21	Single hospital beds bolted to floors and refixing into new position by bolting to wall as pointed out by Architect	No	10		
2/1/22	Burglar bars above low walls at ablutions	m2	14		
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc including carting away rubble off site				
2/1/23	Prefabricated roof trusses complete including wall plates, permanent bracing, etc. measured on floor plan as per Engineer's detail	m2	645		
2/1/24	Roof covering and timber purlins	m2	839		
	Carried Forward			R	
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	Brought Forward			R	
	Hacking up/off and removing granolithic, screeds, plaster, tiling, etc and preparing floors by scarifying screeds, etc				
2/1/25	Ceramic tiles from walls	m2	87		
2/1/26	Ceramic tiles from floors	m2	297		
2/1/27	Damaged internal plaster from walls	m2	442		
2/1/28	Coved fillet skirtings 100mm high	m	221		
	Taking up and removing vinyl floor coverings, carpeting, etc and preparing floors by scarifying screeds, cleaning, etc to receive new floor coverings				
2/1/29	Vinyl floor sheeting and skirtings from floors	m2	152		
	Taking out and removing ironmongery				
2/1/30	Curtain track fixed to walls not exceeding 2,5m	No	5		
2/1/31	Toilet roll holder	No	2		
2/1/32	Soap holder	No	1		
2/1/33	Liquid soap dispenser	No	2		
2/1/34	Liquid soap bottle holder	No	2		
2/1/35	Paper towel dispenser	No	2		
2/1/36	Hat and coat hooks	No	6		
2/1/37	Notice board not exceeding 2,5m2	No	1		
	Taking off/out and removing sundry metalwork				
2/1/38	Steel supports and brackets to timber shelving	m	48		
2/1/39	Steel walkway complete	m2	38		
	Taking out and removing sundry joinery work				
2/1/40	Bumprail plugged to wall	m	96		
	Carried Forward			R	
	Section No. 2 Bill No. 1				

	Brought Forward			R	
2/1/41	300 x 220mm High cabinet fixed to walls	No	6		
	Taking out and removing joinery fittings, etc				
2/1/42	Wall cupboard 880 x 550 x 2100mm high	No	2		
2/1/43	Wall cupboard 2000 x 550 x 1000mm high	No	3		
2/1/44	Timber shelving from steel support brackets	m2	12		
2/1/45	Stainless steel shelving 1500 x 600mm wide with splashback	No	4		
2/1/46	Electric stove	No	1		
	Taking out and removing piping, sanitary fittings, valves, etc and hand over to client				
2/1/47	Existing plumbing water pipes from walls including cartaway		Item		
2/1/48	Existing plumbing waste pipes from walls including cartaway		Item		
2/1/49	Stainless steel double bowl wash trough with splashback including all taps and mixers mounted on it	No	1		
2/1/50	Stainless steel single bowl wash kitchen sink with splashback, including stainless steel counter and cupboards attached to it	No	1		
2/1/51	Stainless steel single wash hand basin including two taps attached to it	No	1		
2/1/52	Stainless steel toilet pan	No	2		
2/1/53	Vitreous china wash hand basin	No	2		
2/1/54	Enamel bath	No	1		
2/1/55	Urinal/toilet flush valve	No	2		
2/1/56	Taps, shower arms and mixers	No	4		
2/1/57	Instant water heater	No	2		
	Carried Forward			R	
	Section No. 2 Bill No. 1				

	Brought Forward			R	
	PLUMBING SUNDRIES				
2/1/58	Cleaning of existing sewer drains, ducts and pipes		Item		
	CUTTING THROUGH FLOORS AND CEILINGS				
	Cutting through				
2/1/59	110mm Thick unreinforced concrete surface bed for new brick walls	m	5		
	Sundries				
2/1/60	Chasing in plaster and brickwork for pipes, conduits, etc 210mm wide average with and including making good cement plaster, etc	m	12		
	PREPARATORY WORK TO EXISTING SURFACES				
2/1/61	Making good defects in existing screeded floors by chipping, scaryfying and applying a self levelling screed in patches to receive new floor coverings (floor coverings elsewhere)	m2	210		
2/1/62	Strip old paint in bad condition from grano floors to receive new epoxy or vinyl flooring elsewhere measured	m2	62		
2/1/63	Making good cracks in existing brickwork by fixing with expanded metal lathing to receive cement plaster	m2	132		
2/1/64	Cleaning and pointing of existing facebrick facades	m2	288		
	MAKING GOOD OF FINISHES, ETC				
	Remedial works to existing foundations				
2/1/65	Clear vegetation and debris from existing trenches	m2	1 158		
2/1/66	Re-trim and prepare existing trench bottoms and sides	m2	1 115		
2/1/67	Removal of collapsed, loose and unsuitable material from existing excavations, including loading, carting away and disposal off site	m3	47		
	Carried Forward			R	

Section No. 2
Bill No. 1

	Brought Forward			R	
2/1/68	Inspect existing foundation reinforcement, clean, prepare and fix, including exposing reinforcement where necessary, removal of rust and contaminants, sandblasting where required, straightening, cutting, lapping, welding, tying and re-fixing of reinforcement, replacement of damaged bars where instructed, application of approved anti-corrosion treatment, and all associated labour, plant, materials and incidental works necessary to render the reinforcement suitable for incorporation into the permanent works.	t	6.00		
	Making good internal two coat plaster with gypsum finish				
2/1/69	Damaged edges to concrete aprons	m2	173		
	Altering of openings with and including necessary temporary support and buidling in precast concrete lintels				
2/1/70	Alter opening in 274mm cavity wall from 480 x 1020mm high to form two new openings for window 460 x 920mm high including building up brickwork, necessary precast concrete lintols, making good plaster on both sides, reveals, cutting tooth and bonding brickwork to existing (New window and make good paintwork elsewhere)	No	1		
2/1/71	Alter opening in 274mm cavity wall from 3072 x 1200mm high to form two new openings for window 460 x 920mm high including building up brickwork, necessary precast concrete lintols, making good plaster on both sides, reveals, cutting tooth and bonding brickwork to existing (New window and make good paintwork elsewhere)	No	1		
	Breaking out for and forming plain openings through brick walls, with and including necessary temporary support, buidling in prestressed concrete lintels, making good brickwork and cement plaster on both sides (making good paintwork elsewhere)				
2/1/72	Opening 600 x 2125mm high through one brick wall	No	1		
2/1/73	Opening 1482 x 2125mm high through one brick wall	No	1		
2/1/74	Opening 2118 x 2125mm high through one brick wall	No	1		
	Carried Forward			R	

Section No. 2
Bill No. 1

	Brought Forward			R	
	Breaking out for and forming openings through brick walls for new doors and frames, with and including necessary temporary support, buidling in prestressed concrete lintels, making good cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled finish (new doors and frames and making good paintwork elsewhere)				
2/1/75	Opening for door with steel/aluminium frame 762 x 2100m high overall through half brick wall	No	1		
2/1/76	Opening for door with steel/aluminium frame 813 x 2100m high overall through half brick wall	No	1		
2/1/77	Opening for door with steel/aluminium frame 813 x 2100m high overall through one brick wall	No	1		
2/1/78	Opening for door with steel/aluminium frame 1100 x 2100m high overall through 274mm cavity wall	No	1		
	Breaking out for and forming openings through brick walls for new windows, with and including necessary temporary support, buidling in prestressed concrete lintels, making good cement plaster on both sides and into reveals (new windows and making good paintwork elsewhere)				
2/1/79	Opening for window 1000 x 1500mm high through 274mm cavity wall	No	1		
	BUDGETARY ALLOWANCE				
2/1/80	Allow an amount of **R300,000.00** (Three Hundred Thousand Rand) nett for architectural and structural assessments of existing decant facilities, including inspections, evaluations, testing where required, and all necessary repairs, remedial works, making good and fixing of identified defects, to be measured and valued in accordance with this Bill of Quantities and omitted in part or in whole as instructed by the Principal Agent.			SUM	
	Carried Forward			R	

Section No. 2
Bill No. 1

	Brought Forward		R	
2/1/81	Allow an amount of **R350,000.00** (Three Hundred and Fifty Thousand Rand) nett for structural assessments of existing abandoned foundation and substructure works, including inspection, evaluation, testing where required, verification of structural integrity and suitability for incorporation into the permanent works, to be measured and priced in accordance with this Bill of Quantities and omitted in part or whole as instructed by the Principal Agent.		SUM	
	Carried to Final Summary		R	
	Section No. 2 Bill No. 1			

Item No		Quantity	Rate	Amount
	BILL NO. 1			
	EARTHWORKS (PROVISIONAL)			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 104 for Contract Price Adjustment Provisions			
	SUPPLEMENTARY PREAMBLES			
	Nature of ground			
	A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.			
	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			
	Filling			
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material			
	Testing			
	Prices for filling are to include for all necessary density tests in accordance with SABS 1200D			
	SITE CLEARANCE ETC			
	Carried Forward		R	

Section No. 3
Bill No. 1

	Brought Forward			R	
	Site clearance				
3/1/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m2	595		
3/1/2	Stripping average 600mm thick layer of top soil and depositing material in prescribed stock piles on site	m2	595		
	REMOVAL OF TREES ETC				
	Taking out and removing, grubbing up roots and filling in holes				
3/1/3	Tree exceeding 200mm and not exceeding 500mm girth	No	2		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep in confined spaces				
3/1/4	Trenches	m3	16		
	Excavation in earth not exceeding 2m deep				
3/1/5	Trenches	m3	316		
3/1/6	Holes	m3	10		
	Extra over excavations in earth for excavation in				
3/1/7	Soft rock	m3	41		
3/1/8	Hard rock	m3	27		
	Extra over all excavations for carting away				
3/1/9	Surplus material from excavations	m3	36		
	Risk of collapse of excavations				
3/1/10	Side of trenches and holes	m2	390		
	Keeping excavations free of water				
3/1/11	Keeping excavations free of all water		Item		
	Carried Forward			R	
	Section No. 3 Bill No. 1				

	Brought Forward			R	
	Earth filling obtained from the excavations and/or prescribed stock piles on site stabilised with 3% cement per volume, compacted to 98% Mod AASHTO density				
3/1/12	Under floors, steps, pavings, etc	m3	179		
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 98% Mod AASHTO density				
3/1/13	Backfilling to trenches, holes, etc	m3	171		
3/1/14	Under floors, steps, pavings, etc	m3	141		
	Compaction of surfaces				
3/1/15	Compaction of ground surface under floors	m2	708		
	Soil insecticide with				
3/1/16	Under floors, steps, pavings, etc	m2	708		
3/1/17	To bottom and sides of trenches	m2	1 159		
	SUB-SOIL				
	Drainage				
3/1/18	300 x 300mm subsoil drainage trench filled with 19mm nominal size clean drainage stone, completely wrapped in BIDIM A4 geotextile filter fabric with minimum 300mm overlaps, including placing, folding and securing, complete.	m	244		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 1				

Item No			Quantity	Rate	Amount
	BILL NO. 2				
	CONCRETE, FORMWORK AND REINFORCEMENT (PROVISIONAL)				
	PREAMBLES				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)				
	CPAP ADJUSTMENT				
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 110, 111 and 114 for Contract Price Adjustment Provisions				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	Mass Filling				
3/2/1	Mass concrete filling to irregular voids between rock formation and underside of BOC foundations, as directed by the Engineer	m3	72		
	15MPa concrete				
3/2/2	Blinding,etc	m3	16		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25 MPa Concrete				
3/2/3	Aprons ,etc	m3	18		
3/2/4	Strip footings	m3	95		
3/2/5	Bases	m3	18		
	30MPa concrete				
3/2/6	Surface beds, plinths,etc	m3	101		
	Carried Forward			R	
	Section No. 3 Bill No. 2				

	Brought Forward			R	
3/2/7	Columns	m3	4		
3/2/8	Slabs and inverted beams	m3	36		
	Finishing top surfaces of concrete smooth with a wood float				
3/2/9	Surface beds, slabs, etc	m2	595		
	Test blocks				
3/2/10	150 x150 x 150mm Deep concrete cube test	No	28		
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces				
3/2/11	10mm Joints not exceeding 300mm high	m	448		
	Saw-cut joints sealed with two part flexible polyurethane joint sealant				
3/2/12	6 x 30mm Saw-cut joints in top of concrete	m	158		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
3/2/13	Vertical sides of strip foundations and footings	m2	193		
	SMOOTH FORMWORK (DEGREE OF ACCURACY III)				
	Smooth formwork to soffits				
3/2/14	Slabs propped up exceeding 1,5m and not exceeding 3m high	m2	40		
	Rough formwork to sides				
3/2/15	Inverted beams above concrete not exceeding 300mm high or wide	m	200		
3/2/16	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	100		
	Carried Forward			R	

Section No. 3
Bill No. 2

	Brought Forward			R	
	STEEL REINFORCEMENT				
	High tensile steel				
3/2/17	Various diameters	t	9.00		
	Fabric reinforcement				
3/2/18	Mesh ref 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	635		
3/2/19	Mesh ref 245 fabric reinforcement in retaining walls, etc	m2	495		
3/2/20	Mesh ref 395 fabric reinforcement in concrete surface beds, slabs, etc	m2	90		
	SUNDRIES				
3/2/21	50mm diameter PVC weep holes through concrete retaining walls, including forming openings, supplying, cutting and fixing pipes to suit wall thickness, complete.	No	150		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 2				

Item No		Quantity	Rate	Amount
	BILL NO. 3			
	MASONRY			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 118 for Contract Price Adjustment Provisions			
	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			
	Hollow walls			
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	Pointing			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	BRICKWORK			
	FOUNDATIONS (PROVISIONAL)			
	Carried Forward		R	

Section No. 3
Bill No. 3

	Brought Forward			R	
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar				
3/3/1	One brick walls	m2	316		
	SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
3/3/2	110mm brick walls	m2	327		
3/3/3	220mm brick walls	m2	746		
3/3/4	330mm Cavity walls	m2	12		
	Brickwork reinforcement				
3/3/5	75mm Wide reinforcement	m	1 680		
3/3/6	175mm Wide reinforcement	m	2 779		
	Turning pieces				
3/3/7	110mm Wide turning piece to lintels	m	66		
3/3/8	230mm Wide turning piece to lintels	m	60		
	Corobrik 20-30MPa FBX clay face brick (Type A), size 222 x 106 x 73mm, manufactured in accordance with SANS 227:2007, (or similar approved).(Colour: Golden Wheat Travertine - to be confirmed); bedded and jointed in Class II mortar and pointed with 10mm square recessed vertical and horizontal joints on 85mm brick courses,				
3/3/9	Extra over brickwork for face brickwork	m2	81		
3/3/10	Extra over brickwork for brick-on-edge header course lintel pointed on face and 230mm soffit	m	8		
	Carried Forward			R	

Section No. 3
Bill No. 3

	Brought Forward			R	
	Corobrik 20-30MPa FBX clay face brick, size 222 x 106 x 73mm, manufactured in accordance with SANS 227:2007, (or similar approved).(Colour: Golden Wheat Travertine - to be confirmed); bedded and jointed in Class II mortar and pointed with 10mm square recessed vertical and horizontal joints on 85mm brick courses,				
3/3/11	Coping on top of one brick wall including fair raking cutting	m	8		
3/3/12	Extra over brickwork for brick-on-edge header course lintels one course high, pointed on face and soffit	m	4		
3/3/13	Corobrik FBX 106mm single bullnose solid pointed with recessed vertical and recessed horizontal joints (Colour: to match masonry FBX walls).	m	12		
	Corobrik 20-30MPa FBX clay face brick (Type B), size 222 x 106 x 73mm, manufactured in accordance with SANS 227:2007, (or similar approved). (Colour: Country Classic Travertine - to be confirmed); bedded and jointed in Class II mortar and pointed with 10mm square recessed vertical and horizontal joints on 85mm brick courses,				
3/3/14	Extra over brickwork for face brickwork	m2	409		
3/3/15	Extra over brickwork for brick-on-edge header course lintel pointed on face and 230mm soffit	m	65		
	Corobrik 20-30MPa FBX clay face brick, size 222 x 106 x 73mm, manufactured in accordance with SANS 227:2007, (or similar approved). (Colour: Country Classic Travertine - to be confirmed); bedded and jointed in Class II mortar and pointed with 10mm square recessed vertical and horizontal joints on 85mm brick courses,				
3/3/16	Coping on top of one brick wall including fair raking cutting	m	65		
3/3/17	Extra over brickwork for brick-on-edge header course lintels one course high, pointed on face and soffit	m	52		
3/3/18	Corobrik FBX 106mm single bullnose solid pointed with recessed vertical and recessed horizontal joints (Colour: to match masonry FBX walls).	m	56		
	Carried Forward			R	
	Section No. 3 Bill No. 3				

	Brought Forward			R	
	SUNDRIES				
	Everite Nutec window sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar at end of sills at plaster reveals. Sill to be cut flush with wall face. Sill to be primed according to manufacturer instruction and painted enamel paint to match wall colour, all in accordance with the manufacturer`s recommendations.				
3/3/19	Internal Sills	m	126		
	Precast concrete sills to be Modcon Concrete 215 x 115x 60mm (EV) pointed with flush joints on all exposed faces (or similar approved).				
3/3/20	Sills (precast concrete)	m	96		
	Precast concrete sills to be Modcon Concrete 290 x 65 x 1500mm (H profile) bedded and jointed in Class II mortar and pointed with flush joints on all exposed faces (or similar approved).				
3/3/21	Sills (precast concrete)	m	30		
	Galvanised wire ties etc				
3/3/22	4mm Diameter roof tie 2m girth bent double, with one end built into brickwork and other end fixed to timber	No	60		
	Butterfly ties etc				
3/3/23	Galvanised steel butterfly ties built into brickwork and fixed to adjoining concrete surfaces, including drilling, approved anchors and all necessary fixing accessories, complete.	No	240		
	Carried Forward			R	

Section No. 3
Bill No. 3

	Brought Forward			R	
	Galvanised Steel Frame Cramps				
3/3/24	Supply and fix galvanised steel masonry frame cramps connecting brickwork to structural steel columns, including approved mechanical fixings and building into mortar joints, complete.	No	240		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 3				

Item No			Quantity	Rate	Amount
	BILL NO. 4				
	WATERPROOFING				
	PREAMBLES				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)				
	CPAP ADJUSTMENT				
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 120 for Contract Price Adjustment Provisions				
	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				
	One layer of 375 micron Approved embossed damp proof course				
3/4/1	In walls	m2	93		
	One layer of 375 micron Approved waterproof sheeting sealed at laps with a pressure sensitive tape				
3/4/2	Under floors, rafts, plinths, pavings, etc	m2	782		
	Silicone sealing compound				
3/4/3	In joints between window frames and brickwork	m	27		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 4				

Item No		Quantity	Rate	Amount
	BILL NO. 5			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 126 for Contract Price Adjustment Provisions			
	SUPPLEMENTARY PREAMBLES			
	Fixing			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere			
	Joinery			
	Descriptions of frames shall be deemed to include frames, transomes, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts			
	Decorative thermosetting plastic laminate covering			
	Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish			
	FACIAS, BARGE BOARDS, ETC:			
	Carried Forward		R	

	Brought Forward			R	
	NUTEC fibre cement faschia & barge boards (or similar approved), size 10 x 300mm to be primed 1 coat and painted 2 coats enamel paint. To be fixed to proper support structure with bolts within a straight line with aluminium joiners on corners and joints. (Colour: according to the architect)				
3/5/1	Fibre cement fascia/barge drilled and brass screwed and including steel jointing strips between lengths.	m	210		
	BUMP RAILS				
	PVC Bumper rails				
3/5/2	Pre-formed rigid PVC bump-rails fitted over aluminium retainers with rubber inserts. PVC covering to be scratch-resistant with a textured surface. Rails to be flush-mounted against walls with an overall thickness of about 20–35 mm. The bump-rail height approx. 90mm. Injection- moulded plastic joiners and end-caps in matching colours to be provided. Side profile of bumper rail to exhibit a shadowline. (Colours to be confirmed and to the staisfaction of the architect)	m	423		
	DOORS, ETC				
	Commercial standard semi-solid heavy duty door				
3/5/3	Swartland Kayo HB STD H12 or similar approved, with (x2) concealed edges, size 2030 x 813 x 46mm to be prepared and painted (x2) coats eggshell enamel paint finish, (Colour: according to architect) on both sides, over-edge. (D1)	No	7		
3/5/4	Swartland Kayo HB STD H12 or similar approved, with (x2) concealed edges, size 2030 x 813 x 46mm to be prepared and painted (x2) coats eggshell enamel paint finish, (Colour: according to architect) on both sides, over-edge. (D2)	No	2		
	Carried Forward			R	

Section No. 3
Bill No. 5

	Brought Forward			R	
3/5/5	Swartland Kayo HB STD H12 or similar approved, with (x2) concealed edges, size 2030 x 813 x 46mm to be prepared and painted (x2) coats eggshell enamel paint finish, (Colour: according to architect) on both sides, over-edge. To include safety glass viewing panel with aluminium frame. (D4)	No	6		
3/5/6	Swartland Kayo HB STD H12 or similar approved, with (x2) concealed edges, size 2030 x 813 x 46mm to be prepared and painted (x2) coats eggshell enamel paint finish, (Colour: according to architect) on both sides, over-edge. To include safety glass viewing panel with aluminium frame. (D5)	No	1		
3/5/7	Swartland Kayo HB STD H12 or similar approved, with (x2) concealed edges, size 2030 x 813 x 46mm to be prepared and painted (x2) coats eggshell enamel paint finish, (Colour: according to architect) on both sides, over-edge. (D6)	No	7		
	Medium duty semi-solid door				
3/5/8	Swartland Kayo or MD UNSAPM12 or similar approved, with veneer over concealed edges (Sapele veneer). Finish with atleast (x2) coats clear satin varnish. (D3)	No	1		
3/5/9	Swartland Kayo or MD UNSAPM12 or similar approved, with veneer over concealed edges (Sapele veneer). Finish with atleast (x2) coats clear satin varnish. (D7)	No	1		
	Framed ledge and braced exterior door				
3/5/10	Framed ledge and braced exterior door with flush panel on both sides, painted 2 coats eggshell enamel paint finish (Colour: according to the architect) on both sides over-edge manufactured in accordance with SANS 545:2009. (D8)	No	3		
	Carried Forward			R	
	Section No. 3 Bill No. 5				

	Brought Forward			R	
3/5/11	Framed ledge and braced exterior door with flush panel on both sides, painted 2 coats eggshell enamel paint finish (Colour: according to the architect) on both sides over-edge manufactured in accordance with SANS 545:2009. (D8)	No	2		
3/5/12	Framed ledge and braced exterior door with flush panel on both sides, painted 2 coats eggshell enamel paint finish (Colour: according to the architect) on both sides over-edge manufactured in accordance with SANS 545:2009. (D11)	No	1		
	FITTINGS				
	RUFFLETTE: Powdercoated aluminium Forwin hospital track for suspension from ceiling (or similar approved), complete with all relevant track pieces, hanger tube, splicer, brackets, end caps, runners, gliders, dome ceiling cover, spacers, nuts and bolts. (Colour: White) All to be installed according to the strict specifications and recommendation of the manufacturer at a hight of 2.5m from finished floor level. (Curtains allowed elsewhere)				
3/5/13	Hospital track	m	144		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 5				

Item No			Quantity	Rate	Amount
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)				
	A written and approved five year guarantee of water-tightness shall be issued after on completion & approval of roofs by the manufacturer, installed complete with all relevant flashings (to match colour of wall cladding sheeting) by a specialist contractor all in accordance with the manufacturers specifications.				
	CPAP ADJUSTMENT				
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 124 for Contract Price Adjustment Provisions				
	PROFILED METAL SHEETING AND ACCESSORIES				
	Roof sheeting shall be Klip-Tite profile roll-formed in continuous lengths from Chromadek Z200 (Colour: according to the architect),0.58mm ISQ 550 fixed to steel / timber purlins using KL700 clips and class 3 fasteners, in strict accordance with manufacturer's specifications by a GRS Approved Contractor.				
3/6/1	Roof covering with pitches not exceeding 25 degrees	m2	939		
	Wall cladding shall be Klip-Tite profile roll-formed in continuous lengths from Chromadek Z200 (Colour: according to the architect),0.58mm ISQ 550 fixed to steel / timber purlins using KL700 clips and class 3 fasteners, in strict accordance with manufacturer's specifications by a GRS Approved Contractor.				
3/6/2	Wall cladding	m2	150		
	Carried Forward			R	
	Section No. 3 Bill No. 6				

	Brought Forward			R	
	Wall cladding shall be of a flat profile sheet with Chromadek Z200 (Colour: according to the architect),0.58mm ISQ 550 fixed to steel purlins using KL700 clips and class 3 fasteners, in strict accordance with manufacturer's specifications by a GRS Approved Contractor.				
3/6/3	Wall/roof cladding at entrance	m2	27		
	ROOF AND WALL INSULATION				
	ISOVER: Lay 135mm non-combustible Factorylite composite insulation with (reinforced foil/ white metalized foil) facing on galvanised wire at 300mm centres. Affix to the roof apex and unroll the blanket with the foil facing down. Overlapping foil edges to be stapled all according to the sitrict recommendations and specifications of the manufacturer and according to NBR & SANS standards.				
3/6/4	Insulation blanket laid taut over purlins	m2	625		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 6				

Item No		Quantity	Rate	Amount
	BILL NO. 7			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 129 for Contract Price Adjustment Provisions			
	SUSPENDED CEILINGS			
	Proprietary suspended ceilings			
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations			
	Flush plastered gypsum plasterboard suspended ceilings			
	Ceilings shall comprise 12,5mm gypsum plasterboard boards screwed to and including screw-up suspension grid consisting of main tees at 1 200mm centres and galvanised steel capped cross tees at 400mm centres and with tape fixed over joints and the whole finished with gypsum plaster trowelled to a smooth polished surface			
	The grid shall be suspended by means of galvanised steel L-section hangers at suitable centres, securely shot-pinned or screwed to concrete, steel or wood			
	Carried Forward		R	

Section No. 3
Bill No. 7

	Brought Forward			R	
	Flush plastered gypsum plasterboard suspended bulkheads Bulkheads shall comprise galvanised steel studding of 63,5mm top and bottom tracks with vertical studs at maximum 400mm centres, pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with plasterboard screwed to studding with drywall screws at maximum 300mm centres. Boards shall be butt jointed and finished with tape and jointing compound and the whole finished with gypsum plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer. Descriptions shall be deemed to include any additional studs at ends and intersections, corner beads, cornices at junctions with ceilings, jointing compound, tape, etc **Bulkheads shall comprise galvanised steel studding of 63,5mm top and bottom tracks with vertical studs at maximum 400mm centres, pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with plasterboard screwed to studding with drywall screws at maximum 300mm centres. Boards shall be butt jointed and finished with tape and jointing compound and the whole finished with gypsum plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer.** **Descriptions shall be deemed to include any additional studs at ends and intersections, corner beads, cornices at junctions with ceilings, jointing compound, tape, etc**				
3/7/1	Flush plastered gypsum plasterboard bulkheads	m2	160		
	Suspended grid vinyl clad exposed T ceiling tiles (combination sizes; 600 x 600mm fissured texture & 1200 x 600mm ripple white texture)				
3/7/2	Flush plastered ceiling (WC CUBICLES ONLY)	m2	38		
	Carried Forward			R	
	Section No. 3 Bill No. 7				

	Brought Forward			R	
	CAPCO or similar approved CEILTEX vinyl clad gypsum aluminium foil backed ceiling tiles, size 12 x 600 x 600mm with fissured texture finish laid onto CKM T38/24W pre-painted white exposed tee grid system. Main tees suspended by means of 19 x 0,5mm G.M.S. strap hangers at 1200mm centres.				
3/7/3	Suspended grid vinyl clad exposed T ceiling tiles (combination sizes; 600 x 600mm fissured texture & 1200 x 600mm ripple white texture)	m2	56		
	CAPCO or similar approved CEILTEX vinyl clad gypsum aluminium foil backed ceiling tiles, size 12 x 600 x 600mm with white ripple texture finish laid onto CKM T38/24W pre-painted white exposed tee grid system. Main tees suspended by means of 19 x 0,5mm G.M.S. strap hangers at 1200mm centres.				
3/7/4	Suspended grid vinyl clad square edge ceiling tiles (size 600 x 600mm)	m2	130		
	600 x 1200 x 15mm ARMSTRONG BIOGUARD tegular white mineral suspended ceiling boards in suspension system; tegular metal prelude XL/TL. 24mm white runners and tegular shadowline perimeter finishes. Runners to be secured to vertical 2.5mm wire spaced minimum 1250mm. All to ceiling layout.				
3/7/5	Suspended grid mineral beveled tegular ceiling tiles (size 600 x 1200mm)	m2	154		
	OWAcoustic Constellation Premium biologically absorbable mineral wool ceiling tiles, NRC - 0.70, size 1200 x 600 x 15mm with reveal-edge and white painted finish, laid on fire rated OWAconstruct S3a exposed demountable T24 suspension system, comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm, and all installed to manufacturer's instructions.				
	OWAconstruct Shadowline W-trim, plugged and screwed at centres not exceeding 200mm.				
3/7/6	Suspended grid vinyl clad beveled tegular ceiling tiles (size 600 x 1200mm)	m2	160		
	Carried Forward			R	

Section No. 3
Bill No. 7

	Brought Forward			R	
	Cornices, perimeter trims, etc to suspended ceilings				
3/7/7	Ceiling perimeters to be finished with pre-painted white 47x35 mm SM 25 recessed shadow line wall angle plugged and screwed to the wall. Installation should be done in strict accordance with the manufacturer's specification	m	618		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 7				

Item No		Quantity	Rate	Amount
	BILL NO. 8			
	FLOOR COVERINGS, WALL LININGS, ETC			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	Sheeting is to be laid in pressure-sensitive or acrylic adhesive (as approved by flooring manufacturer), with a notched trowel at the rate of 5.5 to 6.5 m2/litre on a previously prepared Class 1 sub-base The sheet is to be rolled in both directions with a 68 kg three-sectional metal floor roller, during the course of the installation, immediately after the sheeting is laid in the adhesive. Factory edges of vinyl sheeting are to be removed before laying if recommended by manufacturer (10 to 20 mm) . Joints are to be butted, grooved to about half the depth of the sheet, (about 1 mm) and heat welded, with a welding rod. The finished width of the weld should be a width of 3 mm, and ensure a minimum 70% bond with the sheeting – all in accordance with the manufacturer's spec. No concave or convex joints allowed – the joints must finish flush with the sheeting. No open joints will be accepted. All welds to be glazed and checked prior to polishing. No cross-joins allowed. (Note: No stripping to PuR finished floors as this will damage the sheeting.)			
	Welding between 2 coloured vinyls to be neatly done and according to the strict recommendations and specifications of the manufacturer. All in accordance to the floor finish layout.			
	Skirting to be finished with extruded capping strip (or clip-on capping strip with backing) to be supplied and fixed with manufacturer approved contact adhesive spread evenly and quickly onto both material and wall surface. Ensure that no gaps remain between the wall, the skirting and the floor.			
	Carried Forward		R	

Section No. 3
Bill No. 8

	Brought Forward			R	
	CPAP ADJUSTMENT				
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 130 for Contract Price Adjustment Provisions				
	FLOOR COVERINGS				
	Supply and fix BELGOTEX: NEPTUNE (Colour: according to the architect), (or similar approved) 2 mm thick fully-flexible, nondirectional manufactured in accordance with SANS 786:2007,) vinyl floor-sheeting with polyurethane reinforcement and surface treatment - abrasion group T/P (select group), and manufactured to EN 649. Installation all in accordance to the layout plan and sample board. Screed to be checked and certified. Level of floortile finish to align with finished level of vinyl floor sheeting.				
3/8/1	Vinyl floor covering	m2	418		
3/8/2	Extra over for Vinyl pattern inlays (PROVISION TO BE MADE FOR DARK COLOURED VINYL INLAYS)	m2	135		
	FLOORWORX: Supply and fix approximately 9.0mm thick x 2.0m wide coral® Welcome/Duo polyamide fibre-based entrance matting system (Colour: to be confirmed), (or similar approved), manufactured in accordance with EN14041, with sheets cut and joined as per manufacturer's instruction to fit the required space. It is recommended that the mat be countersunk in a purpose-designed mat-well, adhered using FloorworX No. 71 contact adhesive. (INLCUDE TRANSITION STRIP AS RECOMMENDED BY THE MANUFACTURER - TO THE SATISFACTION AND APPROVAL OF THE ARCHITECT).				
3/8/3	Walk-off mats	m2	50		
	SKIRTINGS, NOSINGS, ETC				
	Carried Forward			R	

Section No. 3
Bill No. 8

	Brought Forward			R	
	Extruda vinyl edging strip (Colour: to be confirmed) width 25mm and height 2.5mm to be installed all according to the instructions and recommendations of the manufacturer.				
3/8/4	Vinyl edging strip	m	160		
	M•Trim brushed stainless steel edging strip to be installed all according to the instructions and recommendations of the manufacturer for vinyl floor finish.				
3/8/5	Stainless steel edging strip	m	160		
	M•Trim stainless steel 30 x 9mm high carpet gripper capping strip trim, plugged and counter sunk screwed into cement screed with stainless steel screws all in accordance with the specifications and recommendatiuons of the manfacturer.				
3/8/6	Vinyl to carpet transition strip	m	136		
	Coved floor-sheet skirting: Matching floor vinyl sheeting coved 150 mm high against walls to form coved skirting, and welded to floor-sheet. Coved skirting to be laid over preformed 20 x 20 mm cove former – with ends sealed with glue. Allow for butterfly corner method at all corners including at thresh-holds, all in accordance with manufacturer's specifications.				
3/8/7	Vinyl skirting	m	162		
	POLISH, SEALERS, ETC				
	Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish (matt texture) complying with SABS 1042, including buffing after application of each coat of polish. **by the manufacturer prior to the installation of the sheeting. All work to be carried out in accordance with manufacturer's specifications.**				
3/8/8	Vinyl polish/ sealant	m2	418		
	Carried Forward			R	

Section No. 3
Bill No. 8

	Brought Forward			R	
	WALL LININGS				
	Decorative vinyl based wallpaper (PC R180.00 per m² EXCL VAT, LABOUR, DELIVERY, ETC)				
3/8/9	On walls	m2	17		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 8				

Item No			Quantity	Rate	Amount
	BILL NO. 9				
	IRONMONGERY				
	PREAMBLES				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)				
	CPAP ADJUSTMENT				
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 132 for Contract Price Adjustment Provisions				
	SUPPLEMENTARY PREAMBLES				
	Finishes to ironmongery				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded				
	HINGES, BOLTS, ETC				
	Approved				
3/9/1	Stainless steel adjustable roller bolt (Code: QS6001)	No	17		
3/9/2	Stainless steel surface mounted WC indicator bolt (Code: QS4446)	No			
	HANDLES				
	Approved				
3/9/3	Solid stainless steel lever handle on rose with escutcheons (Code: Molo)	Sets	17.0		
	Carried Forward			R	

Section No. 3
Bill No. 9

	Brought Forward			R	
3/9/4	Stainless steel round section T handle, size 30x200x300mm (Code: QS2506BTB), back to back pull handle	Sets	15.0		
3/9/5	Stainless steel narrow stile escutcheons (Code: QS4405)	Sets	3.0		
3/9/6	Escutcheon (Code: QS4403)	Sets	3.0		
	CATCHES, CABIN HOOKS, ETC				
	Approved				
3/9/7	FRANKE: Double robe hook for wall mounting, 304 stainless steel, round cover to conceal the fixing of screws, incl. stainless steel screws and dowels, all in stainless steel satin finish. (Code: Hooks: MEDIUS)	No	6		
	LOCKS				
	"EN-SUITE" LOCKS				
	NOTE : The following locks are to be suitable for master key operation				
	Approved				
3/9/8	Stainless steel cylinder lock with latch & deadbolt to fit with 55mm backset 60mm centre (Code: QS 6055/1) (master keyed)	No	17		
3/9/9	Appropriate cylinder lock to fit (master keyed)	No	3		
	NOTE : The following locks are not master keyed				
	Approved				
3/9/10	Stainless steel disabled WC thumb turn (Code: QS4406 & QS4409) with stainless steel bathroom lock 58mm c/c (Code: QS0055/5)	No	2		
3/9/11	Stainless steel WC thumb turn (Code: QS4410)	No	7		
	PUSH PLATES AND KICKING PLATES				
	Carried Forward			R	

Section No. 3
Bill No. 9

	Brought Forward			R	
	1.5mm Thick stainless steel				
3/9/12	150mm high stainless steel back to back kick plate with hairline finish (width according to doorpanel width).	Sets	24.0		
	DOOR CLOSERS, FLOOR SPRINGS, ETC				
	Approved				
3/9/13	QS700 door closer fitted pull side on door leaf with delayed action for disable	No	2		
3/9/14	QS700 door closer fitted pull side on door leaf	No	7		
	NUMERAL AND NAMEPLATES, ETC				
	5mm Perspex name plate with blue coloured backing and white back engraved 25mm high lettering fixed with chrome capped mirror screws				
3/9/15	Suitable size plate with letters **"Multi-purpose kitchen"**	No	1		
3/9/16	Suitable size plate with letters **"Multi-purpose WC"**	No	1		
3/9/17	Suitable size plate with letters **"Pharmacy"**	No	1		
3/9/18	Suitable size plate with letters **"Consultation room (TB)"**	No	1		
3/9/19	Suitable size plate with letters **"Sputum room"**	No	1		
3/9/20	Suitable size plate with letters **"Consultation room"**	No	4		
3/9/21	Suitable size plate with letters **"Counselling room"**	No	2		
3/9/22	Suitable size plate with letters **"Vitals"**	No	1		
3/9/23	Suitable size plate with letters **"Specimen collection"**	No	1		
3/9/24	Suitable size plate with letters **"Emergency/treatment room"**	No	1		
3/9/25	Suitable size plate with letters **"Breast feeding & baby changing facility"**	No	1		
3/9/26	Suitable size plate with letters **"Kiosk"**	No	1		
	Carried Forward			R	
	Section No. 3 Bill No. 9				

	Brought Forward			R	
3/9/27	Suitable size plate with letters **"Staff change room & WC"**	No	1		
3/9/28	Suitable size plate with letters **"Staff kitchen"**	No	1		
3/9/29	Suitable size plate with letters **"Cleaner store"**	No	1		
3/9/30	Suitable size plate with letters **"Dirty utilities"**	No	1		
3/9/31	Suitable size plate with letters **"Public gents"**	No	1		
3/9/32	Suitable size plate with letters **"Public ladies"**	No	1		
3/9/33	Suitable size plate with letters **"Public assisted"**	No	1		
3/9/34	Suitable size plate with letters **"Security"**	No	1		
3/9/35	Suitable size plate with letters **"Security WC"**	No	1		
	Stainless Steel				
3/9/36	Stainless steel square engraved signs, 100x100mm indicative of male & female	No	6		
3/9/37	Stainless steel square engraved sign, 100x100mm indicative of paraplegic WC	No	1		
	BATHROOM FITTINGS				
	Approved				
3/9/38	FRANKE: Stainless steel satin finish wall mounted soap dispenser (Code: RODX619) with approx. 1 litre volume holder, size 132(d) x 140(h) z 200(w)mm e 132(d) x 140(h) z 200(w)mm	No	13		
3/9/39	FRANKE: Stainless steel satin finish wall mounted waste bin (Code: RODX605) with approx. 23 litre bag holder, size 168(d) x 460(h) z 355(w)mm	No	11		
3/9/40	FRANKE: Set Franke waste bin (Code: STRX 607) and hinged lid (Code: STRX 608) for surface mounting. Stainless steel stratos waste bin with hinged lids. Both are finished with a layer InoxPlus to avoid fingerprints and to facilitate cleaning (easy to clean)	No	1		
	Carried Forward			R	

Section No. 3
Bill No. 9

	Brought Forward			R	
3/9/41	FRANKE: Double toilet roll holder with spindle system for wall mounting, stainless steel, surface satin finished, material thickness 0.8 mm, folded front cover, cylinder lock with Franke standard key, for 2 rolls with max. Ø 120 mm, second roll will be released after consumption of first roll, with spindles, reserve roll not visible, incl. stainless steel screws and dowels. (Code: RODX672)	No	7		
3/9/42	FRANKE: 0,8mm Stainless steel with satin finish sanitary towel and disposal bin for wall mounting, size 130(d) x 469(h) x 350(w)mm, approx. 6 liter capacity with integrated bag holder and self closing lid (Code: RODX612). Cylinder lock with Franke standard key, incl. stainless steel screws and dowels.	No	4		
3/9/43	FRANKE: Paper towel dispenser, waste bin combination (Code: RODX602) for wall mounting, stainless steel, surface satin finished, material thickness 0.8 mm, folded front cover, cylinder lock with Franke standard key, loading capacity 500 - 800 pcs. of paper depending on convolution, waste bin with approx. 23 liter capacity, incl. stainless steel screws and dowels	No	5		
3/9/44	FRANKE: Stainless steel angle Bar 135° (Code: CNTX700A), size Diameter: 32(ø) x 256(h) x 618(w) x 91(d)mm. Fine grip surface that complies with European safety standards to prevent slipping. WC HANDRAIL	No	2		
3/9/45	FRANKE: Stainless steel cistern back grab rail (Code: CNTXBR) Diameter: 32(ø) x 750(w) x 260(d) mm	No	2		
	SUNDRIES				
	Carried Forward			R	

Section No. 3
Bill No. 9

				R	
	Brought Forward				
	Approved as per details appendid to the back of these bills of quantities				
3/9/46	TCSHYGIENE: PART No: (Code: PDFOLD STAINLESS STEEL RV) 430 Stainless steel lockable folded hand paper dispenser, size: 397(h) x 294(w) x 105(d)mm Fully enclosed - paper stays clean and dry. Lid slot shows paper status at a glance. Made of tough Stainless steel. Bottom hinged lid for ease of loading folded hand paper towels. 430 Stainless Steel (304 to specification)	No	10		
3/9/47	Stainless steel wall mountable broom- & mop rail designed for a healthcare environment	No	1		
3/9/48	MEDICARE HOSPITAL EQUIPMENT: Bowman PPE Protection System Dispenser (Code: LD-007 LD-007), size 422 x 641 x 114mm	No	1		
3/9/49	FRANKE: BBR bedpan & bottle rack (Code: BBR4)	No	1		
3/9/50	FRANKE: Model Z-series adjustable modular solid shelving manufactured from grade 18/10 stainless steel 1.2mm thick. One piece shelf and integrated bracket with a 25mm apron to front and sides with 30mm turn up at back and safety edge on corners. FRANKE: Model Z-modular series wall bands manufactured from grade 18/10 stainless steel 1.2mm thick, to be double slotted to allow (x2) shelves to be lined up next to each other on a single wall band.	No	2		
	Approved				
3/9/51	Door stop (Code: QS4421)	No	32		
	IRON MONGERY				
	Budgetary allowance				
3/9/52	Allow an amount of R300 000.00 (Three Hundred Thousand) nett for supply and installation of iron mongery to be measured and priced in accordance with this Bill of Quantities and omitted in part or whole as instructed by the Principal Agent		Item		300 000.00
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 9				

Item No			Quantity	Rate	Amount
	BILL NO. 10				
	STRUCTURAL STEELWORK				
	NOTE: Tenderers are advised to study the "Specification of Materials and Methods to be used" (OOG-001E) before pricing this bill.				
	STEEL COLUMNS AND BEAMS				
	THE FOLLOWING IN WELDED AND BOLTED CANOPIES, WALKWAYS, ETC				
	Welded beams in single lengths with flat section bearer and connection plates.				
	GALVANISED STEEL COLUMNS AND BEAMS				
	Welded section hollow columns and beams in single lengths with flat base, cap, bearer and connection plates, bolted to concrete				
3/10/1	203 x 203 x 46kg/m universal column section (ST1)	t	2.38		
3/10/2	152 x 152 x 23kg/m universal column section (ST2)	t	1.00		
	Welded square hollow section columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete or steel				
3/10/3	100 x 100 x 4mm square hollow section (ST3)	t	1.24		
	BEAMS AND RAFTERS				
3/10/4	203 x 203 x 46kg/m universal column section girder beams	t	1.18		
3/10/5	254 x 146 x 31kg/m universal beam section rafters	t	0.50		
	PURLINS				
	Carried Forward			R	

Section No. 3
Bill No. 10

	Brought Forward			R	
	Cold formed lipped channel purlins, including cleats, laps and splices, bolted to steel				
3/10/6	150 x 75 x 20 x 2.5mm cold formed lipped channel purlins	t	1.11		
	BRACING				
	Welded angle section bracing in single lengths with flat gusset and connection plates, bolted to steel				
3/10/7	60 x 60 x 6mm angle section tension bracing	t	0.95		
3/10/8	60 x 60 x 4mm angle section knee bracing	t	1.00		
	CONNECTIONS				
	Bolts, nuts, washers and holding down bolts				
3/10/9	High tensile Class 8.8 bolts with Class 8 lock nuts and washers	No	210		
3/10/10	Holding down bolts complete with nuts and washers	No	100		
	LIGHT STEEL FRAME ROOF TRUSSES				
	Light steel frame (LSF) roof structure – design, supply and installation				
3/10/11	Design, detail, manufacture, supply, deliver and erect complete light steel frame (LSF) roof structure, including galvanised cold-formed steel trusses, rafters, purlins, bracing, connections, brackets, cleats, anchors, fasteners and all associated components, including shop drawings, structural certification and corrosion protection, complete in accordance with the Structural Engineer's drawings, details and specifications, including Drawing No. 35566S-200-G01, and relevant roof framing layouts.	m2	765		
	PROTECTIVE TREATMENT				
	Carried Forward			R	

Section No. 3
Bill No. 10

	Brought Forward			R	
	Prepare and apply corrosion protection to structural steelwork for Environmental Class C3 Industrial in accordance with ISO 12944				
3/10/12	On columns, beams, rafters, purlins and bracing	t	9.36		
3/10/13	On angle bracing	t	1.95		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 10				

Item No		Quantity	Rate	Amount
	BILL NO. 11			
	METALWORK			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 136 and 149 for Contract Price Adjustment Provisions			
	SUPPLEMENTARY PREAMBLES			
	General			
	Screens shall be the Window Wall system as supplied by HBS Aluminium Systems.			
	Manufacture shall be in accordance with the current manuals as provided by HBS Aluminium Systems All aluminium work must comply with the latest edition of publications of Messer AAAMSA An AFSA Certificate of Conformance in respect of product finishes must be obtained.			
	Materials			
	Material shall be of 6063T6 aluminium alloy with a minimum structural wall thickness of 1.8mm. Outer frame to infill panels will be a nominal depth of 166 or 111mm.			
	Carried Forward		R	

Section No. 3
Bill No. 11

	Brought Forward		R	
	Construction Outer frame to consist of a single part compensating head and jamb and continuous sub-Sill. Infill panels are to be constructed from double cavity tubular profiles, forming a wet cavity with drainage slots to allow for transom drainage to the exterior. All glazing rebates to be 25mm. Joints of the infill panels shall be notched and screwed to spigots with No 8 stainless steel screws. Where required, a 111mm or 166mm Split mullion assembly must be used to couple infill panels together, still making allowance for all thermal and dynamic movement. Door panels within the screens to have a 4-edge door rebate with gasket seal all round.			
	Installation All aluminium work to be done in strict accordance to the manufacturers specifications by a specialist firm. All openings to be checked on site before any materials are ordered or manufacture of window and door frames. Panel-by-panel installation from Inside or from Outside the building. All aluminium frame works to be provided with a continuous silicone seal around all construction openings.			
	Hardware All sashes to have mechanical Corner Connectors, wind locks and multi-point locking handles. Sashes not to exceed 1700mm wide by 1200mm high as per specification. Friction stay to suit max weight and size of Sash. Door hardware shall be compatible with the system and will take cognisance of the finish specification of the applicable area. See Hardware Schedule for door.			
	Carried Forward		R	

Section No. 3
Bill No. 11

	Brought Forward			R	
	Finish Sections will be painted in accordance with SABS1578, parts1 & 2. Powercote, and anodised aluminium, should be protected to prevent any damage or stain by cement, etc. All powder coating to be 25 micron thick and shall be executed in strict adherence to sabs 999				
	Glazing Glass thickness should be in accordance with SANS 10400 and deigned by a competent person. Glazing is to be carried out in accordance with SABS 0137, with particular attention to size limitations, packing and setting blocks. Thicknesses from 6-28mm.				
	Structural Perfomance System shall meet or exceed the requirements of SANS613 and the design loading determination by SABS 0160 for this application. Deflection of structural members shall not exceed L/175 or L/240+6mm as applicable.				
	Thermal Perfomance System shall comply with SANS204 in applications where Fenestration makes up more than 15% of Floor area. U-value with Air filled glazing units = 3.36 For U-values below 3.38 use Argon or Krypton gas filled glazing units.				
	STEEL GATES, SCREENS, ETC				
	Burglar bars for glass & aluminium windows				
3/11/1	TRELLIDOR: BURGLAR GUARD powder coated electro-galvanised steel oval shaped non-retractable burglar bar for windows (Colour: to the satisfaction of the architect) to be fitted inside the reveal of the window	No	10		
	Carried Forward			R	

Section No. 3
Bill No. 11

	Brought Forward			R	
	Window dressing: Aluminium venetian blinds				
3/11/2	0.2mm thick and 50mm wide high tensile aluminium alloy powdercoated slats (venetian blind) with system to include headrail that is U-shaped zincalume steel roll-formed and stove-enamelled incorporating the tilt/raise and lowering mechanism and bottom rail from similar finish. (Colour: to the satisfaction of the architect). Blind to be installed inside the reveal.	No	10		
	STRONGROOM, RECORD ROOM DOORS, VENTILATORS, ETC				
	NOTE				
	The rates for strongroom doors, wall safes and ventilators shall include for fixing in position complete				
	BITCON steel double door, overall size; 1830(w) x 2135(h)mm (Code: Type G) with fully louvred vents. Frame to be pressed from 1.6mm steel sheeting fully welded in a double rebated profile, to be primed with (x1) coat red oxide & finished with (x2) enamel paint (Colour: according to the architect). Door to be fitted with l00mm heavy duty flanged stainless steel hinges. Door to include pull handle, padlatch and barrel bolts to double doors as a standard. Door to be installed square true and plumb with the door/s in the closed position. The bottom leading edge/s or the door/s must be wedged to support the vertical load of the door on the frame. The wedge/s should not be removed until the brickwork is satisfactory cured. Louvre vents to be lined on the inside with vermin proof mesh screen size 560mm x 560mm (AV.) manufactured fully louvred with rebated frame surround for installation in walls.				
3/11/3	1830 x 2220mm D10	No	1		
	Natural anodized aluminum door grill 325x625				
3/11/4	325 x 625mm door grill	No	6		
	Carried Forward			R	

Section No. 3
Bill No. 11

	Brought Forward			R	
	DOOR FRAMES, DOORS, WINDOWS, ETC				
	ALUMINIUM WINDOWS				
	Purpose made powder coated windows including glazing and ironmongery complete plugged to brickwork or concrete				
3/11/5	1695 x1190mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) Tophung and (x2) fixed panels. (W2)	No	1		
3/11/6	2700 x 1190mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x2) Tophung and (x1) fixed panels. (W3)	No	1		
3/11/7	2000 x 1190mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x2) Tophung and (x1) fixed panel (W6)	No	4		
3/11/8	1500 x 1190mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x2) Tophung and (x1) fixed panel (W7)	No	3		
3/11/9	770 x 1360mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) Tophung and (x1) fixed panel (W10)	No	5		
	Carried Forward			R	

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Bill No. 11

	Brought Forward			R	
3/11/10	770 x 680mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) Tophung and (x1) fixed panelAs supplied by specialist (W11)	No	3		
3/11/11	2000 x 1105mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x2) Tophung and (x1) fixed panel (W12)	No	1		
3/11/12	800 x 1105mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x2) Tophung and (x1) fixed panels (W13)	No	1		
3/11/13	2090 x 1105mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specification as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x2) Tophung and (x1) fixed panel (W15)	No	4		
3/11/14	920 x 1580mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) Tophung and (x1) fixed panel (W17)	No	2		
3/11/15	1695 x 1190mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) Tophung and (x2) fixed panel (W19)	No	1		
	Carried Forward			R	
	Section No. 3 Bill No. 11				

	Brought Forward			R	
3/11/16	2365 x 610mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) fixed panel (W20)	No	1		
3/11/17	1520 x 610mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) Tophung and (x1) fixed panel (W21)	No	1		
3/11/18	3565 x 850mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (W22)	No	1		
3/11/19	7160 x 425mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x1) fixed panels (W24)	No	1		
3/11/20	4685 x 1020mm Custom aluminium window frame powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings.(Colour according to the architect). (x2) fixed panels (W25)	No	1		
3/11/21	1853 x 1057mm Custom aluminium window frame with (x1) fixed panel; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W26B)	No	1		
	Carried Forward			R	
	Section No. 3 Bill No. 11				

	Brought Forward			R	
3/11/22	1842 x 765mm Custom aluminium window frame with (x1) fixed panel & (x1) top hung; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W33)	No	1		
3/11/23	450 x 1020mm Custom aluminium window frame with (x1) fixed panel & (x1) top hung; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W34)	No	1		
3/11/24	500 x 1360mm Custom aluminium window frame with (x1) fixed panel & (x1) top hung; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W35)	No	1		
3/11/25	4645 x 2380mm Custom aluminium window frame with (x1) fixed panel & (x1) top hung; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W36)	No	1		
3/11/26	2255 x 1455mm Custom aluminium sliding window frame with (x2) sliding panels & (x2) fixed panels; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval. (Colour according to the architect). (W38)	No	1		
3/11/27	533 x 2040mm Custom aluminium window frame with (x2) fixed panels & (x1) top hung; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W39)	No	1		
	ALUMINIUM DOORS				
	Powder coated sliding doors complete with subframes, ironmongery, glass, sealing, etc and fixing to brickwork or concrete				
	Carried Forward			R	

Section No. 3
Bill No. 11

	Brought Forward			R	
	Purpose made powder coated aluminium shopfronts, doors and frames glazed with 9,52mm laminated safety glass, hinges, sealant, ironmongery, etc. plugged to brickwork or concrete				
3/11/28	8780 x 4983mm Custom aluminium shopfront powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W1)	No	1		
3/11/29	8780 x 2510mm Custom aluminium shopfront with INTERPON anodised finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). Doors should open 180 degrees. (W23)	No	1		
3/11/30	4207 x 3060mm Custom aluminium doorframe powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). Custom aluminium shopfront with powdercoated INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W32A)	No	1		
3/11/31	1865 x 2210mm Custom aluminium doorframe powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). Custom aluminium shopfront powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect).(W32B)	No	1		
	Carried Forward			R	
	Section No. 3 Bill No. 11				

	Brought Forward			R	
	Powder coated aluminium frames				
3/11/32	1783 x 2380mm Custom aluminium double doorframe; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W4)	No	1		
3/11/33	1783 x 2380mm Custom aluminium double doorframe; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W5)	No	1		
3/11/34	1200 x 2380mm Custom aluminium doorframe and sidelight; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W8)	No	1		
3/11/35	1630 x 2550mm Custom aluminium door- & (x1) sidelight & (x1) toplight; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W9)	No	1		
3/11/36	1630 x 2550mm Custom aluminium door- & (x1) sidelight & (x1) toplight; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W14)	No	1		
	Carried Forward			R	

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	Brought Forward			R	
3/11/37	879 x 2125mm Custom aluminium doorframe powdercoated with INTERPON finish according to specialist subcontractor specification as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W16)	No	1		
3/11/38	1177 x 2600mm Custom aluminium door- & (x1) sidelight & (x1) toplight; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W18)	No	1		
3/11/39	3712 x 2380mm Custom aluminium doorframe with (x1) sidelight; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W26A)	No	1		
3/11/40	3237 x 2380mm Custom aluminium doorframe with (x2) sidelights & (x1) toplight; all powdercoated in INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W27)	No	1		
3/11/41	877 x 2380mm Custom aluminium doorframe powdercoated with INTERPON finish according to specialist subcontractor specification (colour according to the architect). (W28)	No	1		
3/11/42	1445 x 2380mm Custom aluminium door- & (x1) \sidelight powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect). (W29)	No	2		
	Carried Forward			R	
	Section No. 3 Bill No. 11				

	Brought Forward			R	
3/11/43	1600 x 2380mm Custom aluminium door- & (x1) sidelight & (x1) toplight; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect).(W30)	No	2		
3/11/44	1177 x 2380mm Custom aluminium door- & (x1) sidelight & (x1) toplight; all powdercoated with INTERPON finish according to specialist subcontractor specifications as well as architects approval with a continuous clear silicone seal around all construction openings. (Colour according to the architect).(W31)	No	3		
	PRESSED STEEL DOOR FRAMES				
	Standard heavy duty double rebated pressed steel doorframe with toplight with factory red oxide primer for doorswing and wall thickness as indicated on plan with (x2) coat enamel paint finish over edge (Colour: according to the architect). Frame to accommodate for screeded floor finish.				
3/11/45	Frame for door 870 x 2380mm high (D1)	No	6		
3/11/46	Frame for door 870 x 2380mm high (D2)	No	1		
3/11/47	Frame for door 870 x 2380mm high (D3)	No	8		
3/11/48	Frame for door 870 x 2380mm high (D4)	No	3		
3/11/49	Frame for door 870 x 2380mm high (D5)	No	3		
3/11/50	Frame for door 870 x 2380mm high (D7)	No	1		
3/11/51	Frame for door 870 x 2380mm high (D8)	No	3		
3/11/52	Frame for door 870 x 2380mm high (D9)	No	1		
	Carried Forward			R	

Section No. 3
Bill No. 11

	Brought Forward			R	
	Standard heavy duty double rebated pressed steel doorframe with (x1) shop coat red oxide, size of opening 813 x2032mm high for 110mm wall (check doorswing and wall thickness on plan). Frame painted (x2) coats enamel paint (Colour: according to the architect). Frame to accommodate for screeded floor finish.				
3/11/53	Frame for door 870 x 2061mm high (D6)	No	6		
	BUDGETARY ALLOWANCE				
3/11/54	Allow an amount of **R500,000.00** (five Hundred Thousand Rand) nett for burglar proofing to be priced and priced in accordance with this Bill of Quantities and omitted in part or whole as instructed by the Principal Agent.			SUM	
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 11				

Item No			Quantity	Rate	Amount
	BILL NO. 12				
	PLASTERING				
	PREAMBLES				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)				
	CPAP ADJUSTMENT				
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 142 for Contract Price Adjustment Provisions				
	SCREEDS				
	The screed mix must consist of 1 part cement to 3 parts sand. Both sand and stone must comply with SABS 1083. Cement must comply with SANS 50197-1:2000 and achieve strength of 25mPa. No dry mix is permitted. The screed must be laid to a minimum of 25mm thick (preferably 40mm thick) with a wood trowelled finish where self-levelling compound is to be laid. Cube samples of the screed mix must comply when tested in accordance with SANS 5861-3:1994. The dry, cured (min. 14 days) screed must also be tested using a BRE screed tester, with one test per 20 to 25m² and to 3 to 5m intervals on corridors. **Strength category A: max 3mm indentation.**				
3/12/1	30mm Thick on floors and landings	m2	782		
	GRANOLITHIC				
	30mm thick with steel trowel finish, untinted granolithic screed on concrete floors and landings; skirtings to be 75mm high (only applicable to interiors). Install 150 x 150mm Triangular fillets against walls, kerbs, etc.				
3/12/2	Smooth granolithic screed	m2	20		
3/12/3	Skirtings 75mm high	m	20		
	Carried Forward			R	

Section No. 3
Bill No. 12

	Brought Forward			R	
3/12/4	150 x 150mm Triangular fillets against existing walls, kerbs, etc cast including preparing existing surfaces to receive	m	20		
	EXTERNAL PLASTER				
	Apply one coat Permacrete (Marmoran) 1,5mm (Product code: AS003), (or similar approved), (Colour: according to the architect) when the coating has fully cured, seal with Marmoran Universal Glaze according to SANS ISO 1514:2004. The system must be applied in strict conformance to the manufacturer's instructions, Application to be done by approved applicator and guarantees should be submitted on completion.				
3/12/5	On walls	m2	300		
3/12/6	On narrow widths	m2	23		
	Class 1 cement/ sand plaster with steel trovel finish to comply with SANS 2001 - EMI: 2007 on 85mm brick wall				
3/12/7	On walls	m2	24		
3/12/8	On narrow widths	m2	2		
	INTERNAL PLASTER				
	Plaster interior walls with 1:4 cement sand plaster with steel trowel finish and approved plastersand. Plaster Gyproc Rhinoglide rough coat according to the instructions of the manufacturer.				
3/12/9	On walls	m2	2 061		
3/12/10	On narrow widths	m2	124		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 12				

Item No		Quantity	Rate	Amount
	BILL NO. 13			
	TILING			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 144 for Contract Price Adjustment Provisions			
	SUPPLEMENTARY PREAMBLES			
	Fixing			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat			
	Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles			
	WALL TILING			
	Carried Forward		R	

Section No. 3
Bill No. 13

	Brought Forward			R	
	Ceramic wall tiles up to ceiling level. (Colour: according to the architect) to be laid in accordance with and to the approval of the material supplier with appropriate tinted grout. M • Trim natural anodised 10mm high Elite aluminium straight edge trim (Code: AESE100.NA), laid in tile adhesive while wall tiles are being installed or similar approved. Ceramic tiles (min. 10mm thick)				
3/13/1	On walls in isolated panels, splashbacks, etc	m2	442		
3/13/2	On narrow widths	m2	36		
	Mosaic tiles fix and treated according to manufacturer's specifications with M•Trim 8 x 12mm high polished stainless steel square edge trim (Code : SQE120.N), bedded in tile adhesive while tiles are laid.				
3/13/3	On walls	m2	263		
	FLOOR TILING				
	Full body porcelain tiles (CPI R400/m² EXCL VAT) (min. 10mm thick) fixed and treated according to manufacturer's specifications with M-Trim aluminium movement joints (Code : AMJ100) horizontal and vertical where indicated by supplier, over joints beyond area of 25m² in any direction colour to match grout. Level of floortile finish to align with finished level of vinyl floor sheeting.				
3/13/4	On floors	m2	100		
	Full body porcelain tile skirting (min. 10mm thick) to be laid in accordance with and to the approval of the material supplier at height of 150mm from FFL with stainless steel tile trimming on top				
3/13/5	150mm High skirting	m	56		
	Mosaic ceramic tiles (PC R 400/m2) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted grout				
3/13/6	On floors	m2	12		
3/13/7	On walls	m2	6		
	Carried Forward			R	

Section No. 3
Bill No. 13

	Brought Forward			R	
	SUNDRIES				
	Brushed stainless steel corner tile trimming (to be approved by the architect) for all reveal corners of tiled door- & window openings in tiled walls				
3/13/8	Corner tile trims	m	48		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 13				

Item No		Quantity	Rate	Amount
	BILL NO. 14			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 146 and 148 for Contract Price Adjustment Provisions			
	SUPPLEMENTARY PREAMBLES			
	Polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	Polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured			
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers			
	Carried Forward		R	

Section No. 3
Bill No. 14

	Brought Forward			R	
	Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers				
	Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same				
	All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions				
	All pipe diameters are nominal external				
	Vitrified clay pipes:				
	Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid				
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings				
	HDPE pipes and fittings:				
	Soil, waste and vent pipes and fittings shall be butt weld jointed				
	SEWER PIPING				
	HDPE piping PN 12 plain ended				
	Standard 6m long spool piece				
3/14/1	110mm OD (outside diameter) pipes				
	Supply	m	154		
3/14/2	Install	m	154		
3/14/3	50mm OD (outside diameter) pipes				
	Supply	m	154		
3/14/4	Install	m	154		
	Carried Forward			R	

Section No. 3
Bill No. 14

	Brought Forward			R	
	FITTINGS				
	HDPE flanged ends to 110 ODmm moulded type or fabricated from pipe PE 100 PN 12				
3/14/5	Y - Junction - 45 º, 110mm diameter Supply	No	7		
3/14/6	Install	No	7		
3/14/7	End Cap, 110mm diameter Supply	No	6		
3/14/8	Install	No	6		
3/14/9	Stub flange 110mm diameter Supply	No	22		
3/14/10	Install	No	22		
3/14/11	Ring type gasket klingersil C4324 2mm thick to suit 110mm OD (outside diameter) pipes Supply	No	22		
3/14/12	Install	No	22		
3/14/13	Boltset - bolts to be SABS 1700-5-1 Gr 8.8 HD galvanised with threads to SABS 1700-2-4 complete with nuts and washers as per the Engineers specifications	No	176		
3/14/14	Install	No	176		
	HDPE flanged ends to 50 ODmm moulded type or fabricated from pipe PE 100 PN 12				
3/14/15	Y - Junction - 45 º, 50mm diameter Supply	No	15		
3/14/16	Install	No	15		
3/14/17	End Cap, 50mm diameter Supply	No	14		
3/14/18	Install	No	14		
	Carried Forward			R	

Section No. 3
Bill No. 14

	Brought Forward			R	
3/14/19	Stub flange 50mm diameter Supply	No	40		
3/14/20	Install	No	40		
3/14/21	Ring type gasket klingersil C4324 2mm thick to suit 50mm OD (outside diameter) pipes Supply	No	50		
3/14/22	Install	No	50		
3/14/23	Boltset - bolts to be SABS 1700-5-1 Gr 8.8 HD galvanised with threads to SABS 1700-2-4 complete with nuts and washers as per the Engineers specifications	No	176		
3/14/24	Install	No	176		
	Welds to 110mm OD HDPE piping PN 12				
3/14/25	Butt weld	No	26		
3/14/26	Flange weld	No	26		
	Welds to 50mm OD HDPE piping PN 12				
3/14/27	Butt weld	No	67		
3/14/28	Flange weld	No	67		
	Extra over HDPE pipes for fittings				
3/14/29	50mm Bend	No	30		
3/14/30	50mm Access pipe	No	12		
3/14/31	50mm Access junction	No	23		
3/14/32	50mm diameter reducer	No	23		
3/14/33	50mm diameter air admittance valve (AAV), complete with adaptor and connection	No	8		
3/14/34	110mm Bend	No	15		
3/14/35	110mm Access pipe	No	5		
	Carried Forward			R	
	Section No. 3 Bill No. 14				

	Brought Forward			R	
3/14/36	110mm Access junction	No	7		
3/14/37	110mm WC pan connector complete with seals and connection to soil pipe	No	14		
3/14/38	110mm diameter vent cowl / terminal to top of soil vent pipe	No	5		
3/14/39	110mm diameter air admittance valve (AAV), complete with adaptor and connection	No	5		
3/14/40	110mm cleaning eye/access plug complete	No	7		
	Precast concrete circular inspection chambers including precast concrete cover slabs (covers elsewhere) and channels and benching				
3/14/41	1000mm Diameter inspection chamber not exceeding 2mm deep internally	No	3		
	Precast concrete covers etc				
3/14/42	350 x 350mm Double seal manhole cover and frame	No	3		
	SUNDRIES				
3/14/43	Extra over excavation for excavation in soft rock	m3	19		
3/14/44	Extra over excavation for excavation in hard rock	m3	10		
3/14/45	Extra over excavation for carting away surplus material to a dumping site to be located by the contractor	m3	65		
3/14/46	Extra over backfilling to pipe trenches	m3	130		
	Sundries				
3/14/47	15Mpa/19mm Mass concrete encasing around 110mm raking drain pipe to cleaning eye	No	4		
3/14/48	15Mpa/19mm Mass concrete encasing around 110mm raking drain pipe to cleaning eye	m	6		
3/14/49	Precast concrete inspection eye marker block set flush with the ground or paving	No	15		
3/14/50	100mm Cast iron "ABC" cleaning eye	No	3		
	Carried Forward			R	
	Section No. 3 Bill No. 14				

	Brought Forward			R	
3/14/51	Cutting into existing 160mm drain pipe for and forming junction with 160mm pipe	No	1		
3/14/52	Cutting into side of existing inspection chamber for and connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching	No	1		
3/14/53	Testing drainage pipe system		Item		
3/14/54	Break up and remove existing septic tank complete, including all associated concrete, pipework, connections and fittings; cart away debris; backfill void with approved material in layers, compact and make good, complete.		Item		
	CHAMBERS AND MANHOLES				
	Manholes				
	Construct Type No DT 04/D 1000mm diameter HDPE manhole shaft complete with hoop stiffness of 8kN/m2 (structured ore solid wall). 1200mm diameter precast roof slab (heavy duty) with type 1A (SANS 558) cover and frame for roads, polysulphide seal or bedded on cement slurry, junction of concrete ring beam to pipe as per detail Type DT 12/W,factory fitted steps HDPE steps at 300mm intervals with pre manufactured HDPE benching; max slope of 1:4 adapted for penetrations for ducts as required, sealed with water proofing membrane applied according to the manufacturers specifications including all excavations, ripping and re-compaction of surface bed to 90% Mod AASHTO density, 25Mpa/19mm concrete base, backfilling compaction around manhole to 93% MOD AASHTO density in layers of 150mm - premeability to be lower than the surrounding soil, cut 200mm diameter hole in side and fill area below benching with 10Mpa/13mm concrete, water testing etc complete as shown on drawing No. K5312-F-I12000-DC-DRW-C3416-0003-001				
3/14/55	Not exceeding 2m deep	No	1		
	BUDGETARY ALLOWANCES				
	Carried Forward			R	

Section No. 3
Bill No. 14

	Brought Forward			R	
	Civil and Building Works				
3/14/56	Allow the amount of R 80 000,00 (Eighty Thousand Rand) nett for building and civil works related to the Sewer Treatment should they be required or alternative to be approved by Principal Agent.		Item		80 000,00
	SUNDRIES				
3/14/57	Testing for the sewer water line			SUM	
3/14/58	Allow for connection to existing sewer line			SUM	
	RAINWATER DISPOSAL				
	0,6mm steel rainwater disposal system (incl. rectangular gutters & rainwater downpipes), of dimensions to accommodate for effective channeling of rainwater; all to be coated with Chromadek Z200 to match colour of roof sheeting.				
3/14/59	100 x 100mm Eaves gutters	m	178		
3/14/60	Extra over square eaves gutter for outlet for 75mm pipe	No	8		
3/14/61	75mm Diameter rainwater pipes	m	42		
3/14/62	Extra over round rainwater pipe for bend	No	12		
3/14/63	Extra over round rainwater pipe for shoe	No	8		
	SANITARY FITTINGS				
	Vaal or similar approved				
3/14/64	VAAL: SOLA 630 MEDICAL BASIN (Code: 702800) fine fireclay 630 x 500mm rectangular “Sola 630” medical basin with no tapholes, overflow or chainstay hole, with 600 x 600mm porcelain splash back. Drilled holes ON SPLASHBACK to accommodate for elbow action wall mounted mixer (specified elsewhere).	No	6		
	Carried Forward			R	
	Section No. 3 Bill No. 14				

	Brought Forward			R	
3/14/65	VAAL:HIBISCUS BASIN (Code: 702303) Vitreous china 510 x 405mm rounded “Hibiscus” basin with three semi-punched tapholes (i.e. available in zero, one, two or three taphole configurations), integrated overflow, and chainstay hole through the centre semi-punched taphole bolted to wall.	No	4		
3/14/66	VAAL: Azalea 540 Basin (Code: 705700) Vitreous china 540 x 450 x 165mm “Azalea 540” semi-recessed basin with one taphole and integrated overflow.	No	4		
3/14/67	VAAL: Iceberg Vanity Basin (Code: 703400) Vitreous china 420 x 420mm “Iceberg” round self-rimming drop in vanity basin.	No	3		
3/14/68	VAAL: (Code: Sweetpea Wall Hung Bowl - 705126/705127) vitreous china wall hung "Sweetpea” urinal installed with concealed (back inlet) flushvalve (Cobra FJ8.102 or equivalent). Overall size 565 x 275 x 310 mm. Back inlet fittings (code 7054Z2) include a 38 mm c.p. domical grating, a spreader (with a 20 mm diameter thread), and two hanger brackets.	No	1		
3/14/69	VAAL: QUARTZ CLOSE COUPLED SUITE (Code: 771363) Vitreous china "Quartz" close coupled 90° outlet closed rim washdown pan (code 772800) and matching 6 litre pushbutton top dual flush cistern (code 7116DT) complete with lid and fitments; supplied with quality wooden seat. (code 8515Z000). The suite is designed to flush effectively on 6/3 litres.	No	5		
3/14/70	VAAL: PEARL PARAPLEGIC SEMI CC SUITE (Code: 7300SC) Vitreous china "Pearl Paraplegic” semi-close coupled 90° outlet open rim washdown pan and matching 9 litre cistern complete with lid, fitments, and purpose made C.P. side-flush lever (left or right). Supplied with purpose made thermoset seat and cover plate. The suite is designed to flush effectively on 6 litres.	No	2		
	<u>Franke or similar approved</u>				
3/14/71	FRANKE Stainless steel Rondo inset prep bowl without tap landing (Code: RDX610-45).	No	1		
	Carried Forward			R	
	Section No. 3 Bill No. 14				

	Brought Forward			R	
3/14/72	FRANKE: EC combination bedpan & washup sink; supplied complete with a factory fitted Cobra FM 1.00 flush valve, 35 mm water supply through 50 mm sleeve on unit, P171/041 pillar mixer with over- arm swivel spout, CP297 pillar mixer with retractable hand spray, 15 mm bedpan spray nozzle, 15 mm bottle spray nozzle (both nozzles activated by two 15 mm quarter turn elbow action valves). Please refer to fixing table below for fixing options. Unit is plumbed at factory and is supplied complete with fittings. NOTE: you cannot add your own flushing fittings as it is factory fitted. (Model size to be confirmed)	No	1		
3/14/73	FRANKE: CH Slop Hopper, size 540 x 540mm manufactured from grade 304 (18/10) stainless steel 1,2mm thick with a 100mm high integral splash back to the rear and both sides. The cone must be seamless with no welding and have an integral flushing rim with a 107mm waste outlet for pan connector, the inlet is fitted with a 38 x 250mm long vertical flush pipe for standard flush valve. Unit fitted with a hinged bucket grid manufactured from 10mm dia. grade 304 (18/10) stainless steel round bar, complete with two 40 x 40mm square stainless steel wall mounting gallows brackets. Unit to be fixed to wall 600mm from the top of the front apron to the finish floor level with 4 off anchor bolts. (Flushing via flushvalve: COBRA: FM1.100). Include tap bracket with bucket hook.	No	1		
3/14/74	FRANKE: Model DSG Drip Sink/ Cleaner Sink, size 535 x 454mm manufactured from grade 304 (18/10) stainless steel 1,2mm thick with 100 integrated splash back. Unit is fitted with hinged bucked grid manufactured from 10mm stainless steel round bar. Unit complete with two 40 x 20mm stainless steel wall mounting brackets. Unit is fixed to wall 600mm high from the top of the front apron to the finish floor level with 4 off anchor bolts. Include tap bracket with bucket hook.	No	1		
3/14/75	FRANKE: Model MSS single bowl sink, size 650 x 650 x 258mm manufactured from grade 304 (18/10) stainless steel 1.2mm gauge with 50 x 10mm apron all around. Sink with pressed bowl, size 525 x 425 x 258mm deep (43 litres) with a 40mm waste outlet. Unit is fitted with stainless steel gusset brackets for securing the sink to the wall.	No	1		
	Carried Forward			R	
	Section No. 3 Bill No. 14				

	Brought Forward			R	
	Kwikot or similar approved				
3/14/76	KWIKOT: Arden series stainless steel single bowl (Code: SCO-900-SE), size 900 x 460mm, installed as set in, NOT on top.	No	2		
3/14/77	KWIKOT: Arden series stainless steel double bowl (Code: SSO-1200-DE), size 1200 x 535mm	No	2		
	TRAPS ETC				
	Chromium plated				
3/14/78	GIO cylinder bottle trap (Code: A186)	No	15		
	Rofo or similar approved				
3/14/79	ROFO: Stainless steel 304 full flow floor trap to be stain & corrosion resistant. Installation to make provision for appropriate edging strip as recommended by the manufacturer for installation on a vinyl floor finish. Include water seal/ trap to prevent odours from escaping. Trap cover to have holes.	No	1		
	TAPS, VALVES, ETC				
	Cobra or similar approved				
3/14/80	COBRA: Junior Flushmaster Flushvalves (Code: FJ2-210), Exposed type toilet flushvalve, top entry installations, pan connector, wall flange, seat buffer and ball-o-stop and wall flange. SANS 1240.	No	1		
3/14/81	COBRA: MEDISHIFT PRO RANGE: (Code: NM-859) Single lever elbow action wall type mixer with progressive cartridge. ½" BSP male inlets. SANS 1480	No	9		
3/14/82	COBRA: NOKA (Code: NA-970) Single lever sink mixer with aerated swivel outlet, SANS 1480.	No	5		
3/14/83	COBRA: Star (Code: 206-15 15) ib tap with hot and cold indices, ½" BSP male inlet, SANS 226 TYPE2.	No	2		
	Carried Forward			R	
	Section No. 3 Bill No. 14				

	Brought Forward			R	
	Franke or similar approved				
3/14/84	FRANKE: Aqualine S - Aqua 205 Self Closing Bib Tap (or similar and approved)	No	7		
	SANITARY PLUMBING				
	Precast concrete gulleys				
3/14/85	Gulley not exceeding 1m deep to invert comprising 100mm daimeter vitrified clay gulley trap and head, fitted with 190mm diameter cast in iron grating, including excavating for, bedding on and encasing in mass concrete and fitted with and including precast gulley top bedded in (3:1) cement mortar	No	3		
	Sundries				
3/14/86	Wire balloon grating in top of pipe not exceeding 100mm diameter	No	1		
	Testing				
3/14/87	Provide all necessary apparatus for testing of waste pipe system		Item		
	WATER SUPPLIES				
	Class 10 HDPe type IV pipes				
3/14/88	80mm Pipes laid in and including trenches not exceeding 1m deep	m	100		
	Extra over Class 10 HDPe type IV pipes for "Plasson" fittings				
3/14/89	80mm Reducer	No	10		
3/14/90	80mm Junction	No	10		
3/14/91	80mm Bend	No	10		
3/14/92	80mm Threaded adaptor	No	10		
	Carried Forward			R	

Section No. 3
Bill No. 14

	Brought Forward			R	
	Class O copper pipes with capillary type soldered joints, including couplers in the running length				
3/14/93	15 mm Pipes	m	110		
3/14/94	22 mm Pipes	m	95		
3/14/95	28 mm Pipes	m	45		
3/14/96	35 mm Pipes	m	30		
	Extra over class 0 copper pipes for capillary fittings				
3/14/97	15 mm Fittings	No	110		
3/14/98	22 mm Fittings	No	95		
3/14/99	28 mm Fittings	No	45		
3/14/100	35mm Tee	No	30		
3/14/101	35 mm Reducer	No	25		
	Extra over class 0 copper pipes for conex compression fittings				
3/14/102	15 mm Fittings	No	60		
3/14/103	22mm Fittings	No	60		
	Copper overflow and service pipes				
3/14/104	22mm Overflow pipe 500mm girth twice bent	No	3		
	Sundries				
3/14/105	500 x 500mm Cast iron stopcock box including brick chamber below not exceeding 500mm deep internally	No	1		
3/14/106	100mm Brass hydrant including two flanged spacer pipes, 100mm duckfoot bend, connecting bolts, gaskets, etc	No	1		
	ELECTRIC WATER HEATERS				
	Carried Forward			R	

Section No. 3
Bill No. 14

	Brought Forward			R	
	Kwikot or similar approved				
3/14/107	KWIKOT: 10litre undercounter water heater (Code: FPRX-10-UB) (or similar approved) to be installed according to the strict recommendations and specifications of the manufacturer.	No	1		
	SOLAR GEYSERS				
	Kwikot or similar approved				
3/14/108	Kwikot Kwiksol indirect pump circulation split solar water heating system or imilar approved with 2000 x 1000 x 80mm high flat solar panel collector (code: SOL-PANEL-2), system to include 150 Litre SOL-150-IND round solar water heater complying with SANS 1307:2007, overall size 590mm diameter x 1070mm long with 22mm copper pipe and operating at 400kPa with 400kPa Kwikot Multi pressure control and expansion relief valve (Code: KHN3.214), 100KPa expansion relief valve, auto vent valve, differential thermostat, 20mm draincock and 22mm insulated pipe work including two Kwikot vacuum breakers (Code: KHN4.200CX) installed on hot and cold water supply. Geyser to be installed horizontally in roof space above level of solar collectors to allow convection with polyethylene drip tray with union and back nut connected to 40mm PVC overflow pipe taken out at eaves, all in accordance with SANS 10254:2004 and SANS 10106:2006, connected to single phase electrical power supply with isolator 1m away from connection on geyser.	No	4		
	Roof connection				
3/14/109	Appropriate clips as recommended by GRS to attach solar geyser to Klip-Tite roof sheeting to be included and installed according to the strict recommendations and specifications of the manufacturer. Clips may not pierce roof sheeting/ scratch any coatings or deform the structural integrity of the roof sheeting.	No	4		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 14				

Item No			Quantity	Rate	Amount
	BILL NO. 15				
	GLAZING				
	PREAMBLES				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)				
	CPAP ADJUSTMENT				
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 150 for Contract Price Adjustment Provisions				
	SUPPLEMENTARY PREAMBLES				
	Float glass				
	The term "float glass" is used for monolithic annealed glass				
	Laminated glass				
	Laminated glass to have polyvinyl butyral (PVB) interlayer(s)				
	TOPS, SHELVES, DOORS, MIRRORS, ETC				
	GSA Images ® copper free standard wall mirror (silver), size according to specifications (approx. 500(w) x 700mm) with nominal thickness of 5 mm with brilliant polished edges manufactured to comply with ISO 9001:2000 quality standards, wall mounted to wall as indicated on the drawings with dome screws (Length: 50mm) spaced as indicated on the drawings. Mirror to be set in 20 x 20mm powder coated aluminium frame (Colour: according to the architect). Mirror and frame to be wall mounted.				
3/15/1	500 x 700 wall mounted mirror in powder coated aluminium frame	No	14		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 15				

Item No		Quantity	Rate	Amount
	BILL NO. 16			
	PAINTWORK			
	PREAMBLES			
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP /ASC)			
	CPAP ADJUSTMENT			
	Unless otherwise stated all items in this bill shall be deemed to fall into Work Group 152 for Contract Price Adjustment Provisions			
	PREPARATORY WORK TO EXISTING WORK			
	New plastered walls			
	Ensure plastered surface to be clean and dry before painting. New plaster must be given adequate drying time (moisture content must be less than 15%) and treat with plaster primer before the first coat of paint is applied			
	Previously painted plastered surfaces			
	Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth			
	Previously painted metal surfaces			
	Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
	Previously painted wood surfaces			
	Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth			
	Carried Forward		R	

Section No. 3
Bill No. 16

	Brought Forward			R	
	Previously painted surfaces to receive epoxy coating **Previously painted surfaces are to be stripped back to the orignal firm substrate by abrading, flaem treatings or chemical removal, using an approved paint Remover. Once contanminants have been reomoved the surface is to be acid etched using an approved acid dilited 1:1 with water, applied with plasitc watering can at approximately 2m/lt, removing laitance and slightly roughening the surface to give a finish similar to that of fine sandpapaer. Rinse the entire surface with clean water and allow to dry; normally if well ventilated.**				
	ON INTERNAL FLOATED PLASTER SURFACES				
	Apply (x1) coat DULUX PRIMER FOR NEW PLASTER (Code: D36) or similar approved, with an additional coat after a period of 18 hours. Apply (x2) coats DULUX ANTI-BACTERIAL ACRYLIC PVA (Code: D21) modified ackrylic paint (Colour: according to the architect) or similar approved with an overcoating time of 4 hours. All in accordance with the specifications of the manufacturer.				
3/16/1	Walls	m2	2 013		
	Laminin textured paint, Tex Collection or similar approved; Fine textured paint to be applied according to the strict recommendations of the manufacturer (Colours to be confirmed and to the staisfaction of the architect).				
3/16/2	Walls	m2	174		
	ON EXTERNAL FLOATED PLASTER SURFACES				
	Carried Forward			R	

Section No. 3
Bill No. 16

	Brought Forward			R	
	Apply one coat Permacrete (Marmoran) 1,5mm (Product code: AS003), (or similar approved), (Colour: according to the architect) when the coating has fully cured, seal with Marmoran Universal Glaze according to SANS ISO 1514:2004. The system must be applied in strict conformance to the manufacturer's instructions, Application to be done by approved applicator and guarantees should be submitted on completion.				
3/16/3	Permacrete on walls	m2	323		
	ON PLASTERBOARD SURFACES				
	One coat primer and two coats superior quality acrylic emulsion paint for interior and exterior use				
3/16/4	Ceilings and cornices, including priming metal cover strips and nailheads	m2	299		
	ON FIBRE-CEMENT BOARD SURFACES				
	One coat primer and painted two coats enamel paint.				
3/16/5	Fascias and barge boards, including priming metal jointing strips	m2	53		
	ON METAL SURFACES				
	One coat primer and Two coats enamel paint finish over edge (Colour: according to the architect).				
3/16/6	Steel doors and frames	m2	63		
3/16/7	New rainwater gutters and downpipes	m2	52		
3/16/8	Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	16		
3/16/9	Rails, bars, pipes, etc	m	41		
	ON WOOD SURFACES				
	Carried Forward			R	

Section No. 3
Bill No. 16

	Brought Forward			R	
	<u>One coat primer and Two coats enamel paint finish over edge (Colour: according to the architect).</u>				
3/16/10	Doors	m2	123		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3 Bill No. 16				

Section No. 3

Section 3 - New Building Works

SECTION SUMMARY - Section 3 - New Building Works

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3/2	Concrete, Formwork & Reinforcement	54		
3/3	Masonry	59		
3/4	Waterproofing	60		
3/5	Carpentry and Joinery	64		
3/6	Roof Coverings, etc.	66		
3/7	Ceilings, Partitions and Access Flooring	70		
3/8	Floor Coverings, Plastic Linings, etc.	74		
3/9	Iron Mongery	80		
3/10	Structural Steel Work	83		
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3/12	Plastering	98		
3/13	Tiling	101		
3/14	Plumbing and Drainage (Provisional)	114		
3/15	Glazing	115		
3/16	Paintwork	119		
	Carried to Final Summary		R	

Section No. 3

Item No		Quantity	Rate	Amount
	BILL NO. 1			
	PROVISIONAL SUMS			
	General			
	The following Provisional Amounts are for work to be done by firms of specialists and will, unless expressly stated otherwise, be regarded as Selected Sub-contractors to the Contractor.			
	The Contractor must assist in obtaining tenders and/or quotations from approved firms and submit them to the Agent/Representative for his approval.			
	The tenderer's attention is drawn to Section 1: Preliminaries for further amplification of Provisional- and Prime Cost Amounts.			
	Note: All provisional sums are "NETT".			
	The profit and attendance on Nominated/Selected Subcontract allowances will be adjusted to take the of actual Final Account values of the respective Subcontracts into account. The adjustment factor will be the percentages calculated with reference to the BoQ allowances.			
	Profit			
	Where listed the contractor may allow for profit if required. The profit will be adjusted in the same ratio as the adjusted value of the subcontract.			
	Attendance			
	Without in any way limiting the meaning and interpretation, "general attendance" on sub-contractors shall include free of charge to the sub-contractor the following services for the purpose of the relative sub-contract works:			
	1) access to the site and to the places where the work is to be carried out, including the use of any temporary personnel hoists erected by the Contractor for his own use;			
	Carried Forward		R	

	Brought Forward		R	
	2) the provision of water and lighting and of single and/or three phase electric power to a position within 50 metres of the place where work is to be carried out, but excluding water, fuel and power for commissioning of the installation for which the Contractor shall be responsible; 3) the provision of an area for office accommodation, temporary workshops and for the storage of plant and materials; 4) the use of erected scaffolding belonging to the Contractor, in common with others having the like right whilst it so remains erected upon the site; 5) the use of messrooms, latrine, health and welfare facilities, and the like, where provided; 6) the use of the site telephone (if provided) subject to the payment by the sub-contractor for all his outgoing calls; 7) temporary casing and/or other protection of the work; 8) site security measures; 9) hoisting of the sub-contractor's material in loads not exceeding the available hoisting loads of cranes of the contractor; 10) repairs and making good in all trades and final cleaning down on completion. **<u>Fuel, power and water for commissioning plant</u>** The cost of fuel, power and water for the commissioning of plant shall be borne by the sub-contractor appointed for the relevant sub-contract works in terms of the conditions under which they have/are contracted for the specialist work involved. The contractor shall allow opposite this item or under the relevant attendance items for the recovery of such costs via the installation of the necessary meters			
	Carried Forward		R	
	Section No. 4 Bill No. 1			

	Brought Forward		R	
	Work executed by direct contractors			
	Work listed under the heading "Work executed by direct contractors" shall be executed before and during this contract and the tenderer must allow free access to the site for such other contractors.			
	These contractors shall be directly paid by the client and the tenderer must allow for programming in conjunction with them to complete the project successfully within the contract period.			
	The estimated values of these contracts are listed to enable the tenderer to determine the extent of the attendance if required. Profit on these contracts shall not be allowed.			
	Budgetary allowances			
	Budgetary allowances shall be re-measured and valued on the same pricing structure as the rest of the contract or shall be omitted in full if so required.			

	Furniture, Fixtures & Fittings			
4/1/1	Provide an amount of R 1 000 000,00 nett for Furniture, Fixtures & Fittings to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.	Item		1 000 000,00
4/1/2	Add: Profit	Item		
4/1/3	Add: Attendence	Item		
	Health Technology Equipment			
4/1/4	Provide an amount of R 3 000 000,00 (Three Million Rand) nett for Health Technology Equipment to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.	Item		3 000 000,00
4/1/5	Add: Profit	Item		
4/1/6	Add: Attendence	Item		
	Carried Forward		R	

Section No. 4
Bill No. 1

	Brought Forward		R	
	Landscaping and Outdoor Furniture			
4/1/7	Provide an amount of R 100 000,00 (One Hundred Thousand Rand) nett for Landscaping and Outdoor Furniture to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.	Item		100 000.00
4/1/8	Add: Profit	Item		
4/1/9	Add: Attendence	Item		
	External Canopies/Parking			
4/1/10	Provide an amount of R 500 000,00 (Five Hundred Thousand Rand) nett for painting and making good to External Canopies/Parking, etc to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.	Item		500 000.00
4/1/11	Add: Profit	Item		
4/1/12	Add: Attendence	Item		
	Community Liason Officer			
4/1/13	Provide an amount of R 120 000,00 (One Hundred and Twenty Thousand Rand) nett for Community Liaison Officer to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.	Item		120 000.00
4/1/14	Add: Profit	Item		
4/1/15	Add: Attendence	Item		
	Project Steering Committee			
4/1/16	Provide an amount of R 50 000,00 (Fifty Thousand Rand) nett for Project Steering Committee to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.	Item		50 000.00
4/1/17	Add: Profit	Item		
4/1/18	Add: Attendence	Item		
	Carried Forward		R	
	Section No. 4 Bill No. 1			

	Brought Forward		R	
	Occupational Health and Safety			
4/1/19	Provide a net amount of R 100 000,00 (One Hundred Thousand Rand) nett for compliance with the Occupational Health and Safety Act and its regulations and with the Employers Health and Safety requirements to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.	Item		100 000,00
	Carried to Final Summary		R	
	Section No. 4 Bill No. 1			

PART 2

SECTION 7 - CIVIL WORKS

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		BILL 1: ROADS AND PAVING				
	SANS 1200 C	**Site Clearance**				
1	PSC 8.2.1	Clear and grub areas	m²	1284		R -
	SANS 1200 D	**Earthworks**				
2	8.3.4	Importing of materials under floors:				
		a) G7 compacted to in 150mm layers to 90% of modified AASHTO maximum density for infill under building floors	m³	185		R -
	SANS 1200 DM	**Earthworks (Roads, Subgrade)**				
3	8.3.2	Preparation of Site:				
		a) Removal of topsoil to nominal depth of 150 mm, and the stockpiling and maintenance thereof	m³	133		R -
4	8.3.3	Treatment of roadbed:				
		a) Roadbed preparation and compaction of material to a minimum of 93% of modified AASHTO	m³	130		R -
		b) In-place treatment of road-bed in intermediate or hard rock material by:				
		i) Ripping	m³	30		R -
5	8.3.4	Cut to fill:				
		a) Compact to 90% of modified AASHTO maximum density	m³	155		R -
6	8.3.6	Extra over item 2.5 above for:				
		a) Hard rock excavation	m³	30		R -
	Carried forward					

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
	SANS 1200 ME	**Subbase**				
7	8.3.3	Construct the subbase course with material from commercial sources:				
		a) 150mm G7 material compacted to 95% of modified AASHTO maximum density under roads and parking areas	m³	59		R -
		b) 150mm G7 material compacted to 93% of modified AASHTO maximum density under paved areas	m³	34		R -
	SANS 1200 MF	**Base**				
8	8.3.3	Construct the base course with material from commercial sources:				
		a) 150mm C4 material compacted to 97% of modified AASHTO maximum density	m³	59		R -
9	8.3.8	Stabilizing agent:				
		a) Portland cement	t	2.2		R -
	SANS 1200 MJ	**Segmented Paving**				
10	8.2.1	Provision of edge restraints:				
		a) For straight edging	m	86		R -
		b) For curved edging	m	8		R -
		c) Edge beams	m	-		Rate Only
11	8.2.2	Construction of paving complete with 20mm bedding sand layer:				
		a) 80mm Type S-A Class 40/2.6 interlocking concrete pavers (tan colour) laid in herringbone pattern for roads	m²	262		R -
		b) 60mm Type S-A Class 40/2.6 interlocking concrete pavers (grey) laid in herringbone pattern for paved areas	m²	36		R -
	Carried forward					

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
		c) 400x400x50mm thick concrete blocks, for pedestrian areas and courtyard	m²	143		R -
		d) 150x150x50mm thick Smartstone Hugenot 150 pavers (earth colour) for parking and road crossing	m²	126		R -
		e) 60mm Corobrick Onyx Piazza pavers, laid in stack bond for landscaped area	m²	63		R -
12	8.2.3	Cutting blocks to fit edge restraints:				
		a) Straight cutting	m	223		R -
		b) Circular cutting	m	36		R -
13	8.2.4	Rolling to locked-up condition as specified in Clause 5.6.2	m²	612		R -
	SANS 1200 MK	**Kerbing and Channeling**				
14	8.2.1	Pre-cast concrete kerbing:				
		a) Mountable kerb (SANS 927 fig. 8c):				
		i) Supply and install new curved kerbing complete	m	5		R -
		ii) Supply and instal new straight kerbing complete	m	11		R -
		b) Barrier kerb (SANS 927 fig. 3):				
		i) Supply and install new curved kerbing complete	m	22		R -
		ii) Supply and instal new straight kerbing complete	m	183		R -
15	8.2.7	Trimming of excavations for concrete-lined open drains and concrete aprons in:				
		a) All materials	m²	252		R -
	Carried forward					

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
16	8.2.8	Cast-in-situ concrete lining to open drains and aprons:				
		a) Grade 25 concrete, 100 mm thick	m³	29		R -
17	8.2.9	Formwork to cast-in-situ concrete lining of open drains and aprons (smooth surface finish):				
		a) To sides	m²	29		R -
		b) To ends of slabs	m²	11		R -
18	8.2.10	Sealed joints in concrete lining of open drains and aprons:				
		a) Hot bitumen	m	273		R -
19	8.2.12	Steel reinforcement for open drains and aprons:				
		a) Mesh Ref. 193	m²	280		R -
20	8.2.13	250 micron thick polyethylene sheeting for concrete-lined open drains and aprons	m²	280		R -
	TOTAL OF BILL 1 CARRIED TO SUMMARY					

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		BILL 2: WATER				
	SANS 1200 DB	**Earthworks (Pipe Trenches)**				
1	8.3.2	Excavate in all materials for trenches, backfill, compact and dispose of surplus material:				
		a) Pipes up to 160 mm dia for depths:				
		i) up to 1,0m	m³	-		Rate Only
		ii) from 1,01m up to 2,0m	m³	36		R -
		iii) from 2,01m up to 3,0m	m³	-		Rate Only
2	8.3.2	Extra over item 3.1 above for:				
		a) Hard rock excavation	m³	10		R -
		b) Hand excavation and backfill where ordered by the Engineer	m³	5		R -
		c) Soilcrete backfill where directed by the Engineer (12% added cement by volume)	m³	10		R -
		d) Careful hand excavation to locate and expose existing services	m³	5		R -
	SANS 1200 L	**Medium-Pressure Pipelines**				
3	8.2.1	Supply, lay, joint (weld), bed, test and backfill HDPE PE100 class PN16 pipeline:				
		a) 25mm dia.	m	16		R -
		b) 32mm dia.	m	6		R -
		c) 63mm dia.	m	14		R -
4	8.2.2	Extra over item 3.1 for supplying, laying and bedding of HDPE specials complete with couplings:				
		a) 45° bends:				
		i) 25mm dia	no.	1		R -
	Carried forward					

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
		b) 90° elbows:				
		i) 25mm dia.	no.	1		R -
		ii) 32mm dia.	no.	1		R -
		ii) 63mm dia.	no.	1		R -
		c) Tees:				
		i) 63mm dia x 63mm dia	no.	2		R -
		d) Reducers:				
		i) 50mm dia x 25mm dia	no.	1		R -
		ii) 50mm dia x 32mm dia	no.	1		R -
		ii) 63mm dia x 50mm dia	no.	2		R -
5	8.2.3	Extra over item 3.1 for supplying and fixing of stop valves, complete with with couplings:				
		a) 25mm dia.	no.	1		R -
		b) 32mm dia.	no.	1		R -
		c) 63mm dia.	no.	1		R -
6		Extra over item 3.1 for supplying and fixing of building connections				
		a) Guard house (node 22)	no.	1		R -
		b) Decanting facility (node 3)	no.	1		R -
		c) Clinic (node 24)	no.	1		R -
7	8.2.13	Supply and installation of valve chambers:				
		a) HDPE valve chamber	no.	3		R -
	Carried forward					

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
8		Manufacture, supply, deliver, transport, handle, protect, store, install, test, commission and uphold during the Defects Liability Period:				
		a) Booster pump:				
		i) Required delivery: 125 l/min max.				
		ii) Pumping head: 30m maximum				
		iii) Pump set: DAB K35/100 Auto 1.1kW or simlar approved	no.	1		R -
		b) Pressure vessel: 24l	no.	1		R -
		c) Pump cover to suit a) and b) above	no.	1		R -
9		Supply, installation, testing and commisioning of complete pipework, valves and fittings required to connect the storage tanks to the borehole and booster pump, inculding all material and labour required	sum	1		R -
10		Supply, deliver, install, test and commission 49 kL steel water storage tank complete, including steel support stand, access ladder/platforms, structural supports, bracing and fixings; reinforced concrete plinth/foundations including excavation, backfilling and making good; inlet, outlet, overflow, scour and drain pipework; all valves, fittings, connections and associated water reticulation; pumps complete with controls, starters, protection and all accessories; electrical power supply from the Main DB to the pump installation, including circuit breakers, isolators, cabling, cable containment, trenching where required, earthing, termination and connection; testing, commissioning and all sundry works necessary for a complete and fully operational installation.	sum	1		R -
	SANS 1200 LB	**Bedding (Pipes)**				
11	8.2.2	Supply only of bedding by importation:				
		a) From commercial sources:				
		i) Selected granular material	m³	3		R -
		ii) Selected fill material	m³	7		R -
	TOTAL OF BILL 2 CARRIED TO SUMMARY					

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		BILL 3: SEWER				
	SANS 1200 DB	**Earthworks (Pipe Trenches)**				
1	8.3.2	Excavate in all materials for trenches, backfill, compact and dispose of surplus material:				
		a) Pipes up to 160 mm dia for depths:				
		i) up to 1,0m	m³	8		R -
		ii) from 1,01m up to 2,0m	m³	171		R -
		iii) from 2,01m up to 3,0m	m³	2		R -
2	8.3.2	Extra over item 4.1 above for:				
		a) Hard rock excavation	m³	10		R -
		b) Hand excavation and backfill where ordered by the Engineer	m³	5		R -
		c) Soilcrete backfill where directed by the Engineer (12% added cement by volume)	m³	10		R -
		d) Careful hand excavation to locate and expose existing services	m³	5		R -
	SANS 1200 LB	**Bedding (Pipes)**				
3	8.2.2	Supply only of bedding by importation:				
		a) From commercial sources:				
		i) Selected granular material	m³	39		R -
		ii) Selected fill material	m³	26		R -
	SANS 1200 LD	**Sewers**				
4	8.2.1	Supply, lay, joint (weld), bed, test and backfill HDPE PE100 class PN12 pipeline:				
		a) 110mm dia.	m	181		R -
	Carried forward					

ITEM NO	PAYMENT REFERS TO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
5	8.2.5	Supply and installation of HDPE manholes,				
		a) 1000mm dia, complete as per drawings, for depths:				
		i) Depth to invert up to 1,0m	no.	3		R -
		ii) Depth to invert from 1,01m to 1,5m	no.	7		R -
		iii) Depth to invert from 1,51m to 2,0m	no.	1		R -
		iv) Depth to invert from 2,01m to 2,5m	no.	-		Rate Only
6	8.2.6	Supply and installation of rodding eyes,	no.	4		R -
7	8.2.7	Connections from buidlings to main sewer,				
		a) Length up to 2,0m	no.	20		R -
		b) Length from 2,01m to 5,0m	no.	3		R -
		c) Length from 5,01m to 10,0m	no.	1		R -
8.0		Manufacture, supply, deliver, off-load, handle, protect, store, install, test, commission and maintain during the Defects Liability Period, complete 10 m³/day below-ground sewage treatment plant, comprising 5,500 litre flow equalisation chamber, septic/anoxic tanks, modular bio-reactors, 1,500 litre settling tank, 1,500 litre disinfection chamber, below-ground chlorinator, side-channel blower, electrical/control equipment, pumps, sludge return and interconnecting pipework, valves, fittings, connections and all necessary accessories, including 90 m long treated-effluent outlet to perennial river, all complete and operational in accordance with the specialist manufacturer's requirements; earthworks measured elsewhere	sum	1		R -
	TOTAL OF BILL 3 CARRIED TO SUMMARY					

ITEM NO	PAYMENT REFERS TO		UNIT	QUAN-TITY	RATE	AMOUNT
		BILL 4: STORMWATER DRAINAGE				
		(HAYLETT FORMULA WORK GROUP NO. 146)				
1	8.3,2	Excavate in all materials for trenches, dewater, backfill, compact, and dispose of surplus unsuitable material for: Storm water pipes over 110mm upto and including 200mm external diameter depths:				
		Exceeding 0.0m up to 1.0m	m	70	R	-
		Exceeding 1.0m up to 2.0m	m	100	R	-
2	8.2.1	uPVC pipes				
		110mm uPVC Pipes	m	70	R	-
		160mm uPVC Pipes	m	100	R	-
3	8.2.2	Extra over uPVC pipes for fittings				
		110mm Fittings	No	5	R	-
		160mm Fittings	No	5	R	-
4		Sundries				
	8.2.8	15MPa/19mm mass concrete encasing around 110mm horizontal drain pipe including all necessary formwork	m	10	R	-
		15MPa/19mm mass concrete encasing around 110mm vertical or raking drain pipe to cleaning eye including all necessary formwork	m	15	R	-
		15MPa/19mm mass concrete in precast I.E. marker block set flush with the ground or paving	No	5	R	-
5		INSPECTION CHAMBERS				
	8.2.3	Inspection chamber of concrete bottom, brick walls, concrete slab, channels, channel junctions, channel bends, internal plaster and 450 x 600mm type 9A cast iron cover and frame				
		Inspection chamber 1 070 x 880mm exceeding 1 000mm and not exceeding 1 250mm deep internally	No	1	R	-
		THE FOLLOWING IN PRE-FABRICATED MANHOLES				
		(HAYLETT FORMULA WORK GROUP NO. 146)				
	8.2.3	Pre-fabricated concrete manholes and shall constructed according to the Manufacturer's instructions. All manholes to be out of dolomitic aggregate				

ITEM NO	PAYMENT REFERS TO		UNIT	QUAN-TITY	RATE	AMOUNT
		Excavate in earth for and including circular type precast concrete manhole formed of 1,4m diameter x 100mm thick 20MPa/19mm mass concrete bottom with manhole shaft formed of 1,05m diameter (internal) precast concrete rings with joints sealed with bitumious putty with and including precast concrete cover slab 125mm thick and precast concrete spacer slab with opening for and including heavy duty road type manhole cover and frame as type 4 set in cement mortar and sealed in tallow and with fine mass concrete benching in bottom floated smooth with falls to and including 110mm Pvc channels and finished on all exposed surfaces with 25mm thick granolithic with angles rounded including all necessary step irons, etc.				
		Manhole not exceeding 1m deep	No	1		R -
		Manhole exceeding 1m and not exceeding 2m deep	No	1		R -
6	8.2.10	Sundries				
		Hole through side of precast concrete manhole for pipe exceeding 100mm and not exceeding 200mm diameter and make good	No	1		R -
	Carried forward					

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

ITEM NO	PAYMENT REFERS TO		UNIT	QUAN-TITY	RATE	AMOUNT
		Brought forward				
		WATER SUPPLIES				
7	8.5	Water connection				
		Provide the Provisional Amount of R 25 000.00 (Twenty Five Thousand Rand) NET for the connection to the water main to be carried out by the Local Authority	Item	1		R -
		Allow for profit on previous item, if required	Item	1		R -
8	8.2.1	HDPE pipes				
		63mm Pipes laid in and including trenches	m	100		R -
9	8.2.2	Extra over HDPE fittings				
		63mm Fittings	No	10		R -
10	8.2.3	Extra over HDPE Pipes for cast iron fittings				
		63mm Gate valve including all necessary flanges, drilling, bolts and connection to HDPE pipe	No	1		R -
11	8.2.1	Galvanised mild steel screwed and socketed pipes and fittings				
		25mm Pipe fixed to hydrant box	m	5		R -
		80mm Pipe laid in trenches (trenches elsewhere)	m	25		R -
		80mm Fire hydrant stand pipe (no fixing)	m	4		R -
12	8.2.2	Extra over galvanised mild steel pipes for galvanised mild steel fittings				
		25mm Fittings	No	4		R -
		80mm Bend	No	5		R -
		TOTAL OF BILL 4 CARRIED TO SUMMARY				

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

ITEM NO	PAYMENT REFERS TO		UNIT	QUAN-TITY	RATE	AMOUNT
		BILL 5: APRONS, CHANNELS, ETC.				
		NOTE: Unless otherwise stated herein all items in this bill shall be deemed to fall into Work Group No 104 for Haylett Formula purposes				
		NOTE: All excavations are measured as being in "earth" and/or filling compacted to 98% modified AASHTO density Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in soil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the contractor's method of operation. 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 and for bulking.				
		THE FOLLOWING IN APRONS, CHANNELS, ETC.				
1	8.4.3	Mass concrete with a coarse aggregate of 19mm and a minimum compressive strength of 15MPa at 28 days:				
		In aprons, channels, etc.	m3	22		R -
2		Sundries				
	8.4.4	Finish raking top surface of surface bed to a smooth and even non-slip wood float surface including additional dry sand/cement mixture added as necessary whilst the concrete is still wet	m2	216		R -
3	8.4.1	Formwork to sides of:				
		Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	216		R -
4	8.4.8	Movement joints:				
		Vertical separation joint between brick- and/or concrete surfaces formed with 13mm bitumen impregnated softboard joint filler not exceeding 300mm high including raking out for a depth 12mm and finish off with 12 x 13mm bituminous filling.	m	24		R -
5	8.4.5	Fabric reinforcement				
		Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	216		R -
		TOTAL OF BILL 5 CARRIED TO SUMMARY				**R -**

ITEM NO	PAYMENT REFERS TO		UNIT	QUAN-TITY	RATE	AMOUNT
		BILL 6: FENCING				
		SECURITY FENCING (PROVISIONAL))				
1	8.2.1	COCHRAN ClearVu Fencing (or similar approved), 2100mm high comprising of galvanised reinforcing rib mesh, nominal panel size 3297mm wide secured to 85 x 85mm galvanized posts, with posts set in minimum 15MPa mass concrete bases 400 x 400 x 600mm deep according to manufacturerÆs specifications. (Colour: according to the architect).				
		2100mm high Clearvu fence	m	50		R -
2	8.2.4	ClearVu100mm hugh toughened steel Castle spike shall be affixed to panel edge, internally at 150mm intervals using anti vandal bolts. Spike finish to be hot dipped galvanised (Colour: to match fence)				
		CLEARVU fence topping	m	25		R -
3	8.2.3	Clearvu Gates				
		Clearvu Single swing pedestrian gate complete	No	2		R -
		Clearvu Single sliding pedestrian gate	No	1		R -
		Clearvu Double vehicle access gate (The rate shall include motorising the gate complete all to the Architect's detail)	No	1		R -
		BOUNDARY WALL (PROVISIONAL))				
4	8.2.1	230mm thick brick wall 2.1m high above the ground inclusive of foundations as per architect's detail.				
		2100mm high boundary wall	m	14		R -
		TOTAL OF BILL 6 CARRIED TO SUMMARY				**R -**

SCHEDULE OF QUANTITIES

BILL 1	:	ROADS AND PAVING	R	
BILL 2	:	WATER	R	
BILL 3	:	SEWER	R	
BILL 4	:	STORMWATER DRAINAGE	R	
BILL 5	:	APRONS, CHANNELS, ETC.	R	
BILL 6	:	FENCING	R	
TOTAL CARRIED TO FINAL SUMMARY			**R**	**0.00**

SECTION 8 - ELECTRICAL WORKS

Schedule of Quantities						Electrical Installation
ITEM	DESCRIPTION	UNIT	QTY	MATERIAL	LABOUR	TOTAL PRICE
	LOW VOLTAGE DISTRIBUTION					
1.	**LV FEEDER CABLES AND EARTH WIRES**					
1.1	Supply, install and connect 660/1000 Volt multi-core PVC/PVC/SWA/PVC insulated, armoured, Copper cables:					
	Eskom supply point to Kiosk					
1.1.1	16mm² x 4 core - Cable in ground	meter	**20**			R -
1.1.2	16mm² x 4 core - Cable ends	each	**2**			R -
1.1.3	16mm² BCEW - Cable in ground	meter	**20**			R -
	Kiosk to Generator					
1.1.4	16mm² x 4 core - Cable in ground	meter	**10**			R -
1.1.5	16mm² x 4 core - Cable ends	each	**2**			R -
1.1.6	16mm² BCEW - Cable in ground	meter	**10**			R -
	Generator to kiosk					
1.1.8	16mm² x 4 core - Cable in ground	meter	**10**			R -
1.1.9	16mm² x 4 core - Cable ends	each	**2**			R -
1.1.10	16mm² BCEW - Cable in ground	meter	**10**			R -
	Kiosk to DB A (Normal section)					
1.1.11	16mm² x 4 core - Cable in ground	meter	**30**			R -
1.1.12	16mm² x 4 core - Cable ends	each	**2**			R -
1.1.13	16mm² BCEW - Cable in ground	meter	**30**			R -
	Kiosk to DB A (Emergency section)					
1.1.14	16mm² x 4 core - Cable in ground	meter	**30**			R -
1.1.15	16mm² x 4 core - Cable ends	each	**2**			R -
1.1.16	16mm² BCEW - Cable in ground	meter	**30**			R -
	DB A to DB B (Normal section)					
1.1.17	10mm² x 4 core - Cable wire mesh	meter	**25**			R -
1.1.18	10mm² x 4 core - Cable ends	each	**2**			R -
1.1.19	10mm² BCEW - Cable tray	meter	**25**			R -
	DB A to DB B (Emergency section)					
1.1.20	10mm² x 4 core - Cable wire mesh	meter	**25**			R -
1.1.21	10mm² x 4 core - Cable ends	each	**2**			R -
1.1.22	10mm² BCEW - Cable tray	meter	**25**			R -
	DB A to DB C (Normal section)					
1.1.23	6mm² x 4 core - Cable wire mesh	meter				R -
1.1.24	6mm² x 4 core - Cable ends	each				R -
1.1.25	6mm² BCEW - Cable tray	meter				R -
	DB A to DB C (Emergency section)					
1.1.26	4mm² x 3 core - Cable wire mesh	meter				R -
1.1.27	4mm² x 3 core - Cable ends	each				R -
	KIOSK to DB GH (Normal section)					
1.1.28	4mm² x 3 core - Cable wire mesh	meter	**16**			R -
1.1.29	4mm² x 3 core - Cable ends	each	**2**			R -
	Site Lighting					
1.1.30	4mm² x 3 core - Cable trench	meter	**120**			R -
1.1.31	4mm² x 3 core - Cable ends	each	**16**			R -
	Kiosk to Decanting Units					
1.1.32	16mm² x 4 core - Cable in ground	meter				R -
1.1.33	16mm² x 4 core - Cable ends	each				R -
1.1.34	16mm² BCEW - Cable in ground	meter				R -
Amount carried forward						**R -**

Schedule of Quantities						Electrical Installation
ITEM	DESCRIPTION	UNIT	QTY	MATERIAL	LABOUR	TOTAL PRICE
Amount brought forward						R -
3.	**CABLE SLEEVES**					
3.1	Supply and install uPVC cable sleeve pipes including short lengths, jointing, slow bends, bushes, locknuts, etc.:					
3.1.1	160mm diameter PVC in trenches	meter				Rate Only
3.1.2	110mm diameter PVC in trenches	meter				R -
3.1.3	50mm diameter PVC in trenches	meter	**100**			R -
3.1.4	50mm diameter PVC builed-in or cast in concrete	meter	**20**			R -
4.	**REMOVAL OF EXISTING SERVICES**					
4.1	The electrical contractor must remove all redundend electrical equipment including cabling, conduit and wiring. This include the safe making of any part of the electrical installation.					
4.1.1	Removal of existing services (Provisional Amount)	item	**1**			**R 10 000.00**
5.	**EXCAVATIONS (750MM DEEP, 350MM WIDE)**					
5.1.1	Pickable, including backfilling and compaction	m³	**30**			R -
5.1.2	Hard Rock, including backfilling and compaction	m³	**5**			R -
5.1.3	Bedding	m³	**6**			R -
6.	**MANHOLES**					
6.1	Supply and install RHI-NODE600 manholes complete with lid.	each				R -
7,	**UPGRADING OF ESKOM CONNECTION POINT**					
7,1	Upgrading of the existing Eskom connection to a 100kVA bulk metered low voltage connection. Provisional Amount	item	**1**	**xxxxx**	**xxxxx**	**R 300 000.00**
AMOUNT TO BE CARRIED FORWARD TO ELECTRICAL TENDER SUMMARY						

Schedule of Quantities						Electrical Installation
ITEM	DESCRIPTION	UNIT	QTY	MATERIAL	LABOUR	TOTAL PRICE
	BUILDING INSTALLATION					
1.	**DISTRIBUTION BOARDS**					
1.1	Supply, install and commission distribution boards (flush mounted / surface mounted / floor standing), complete with - all switchgear as specified and including framework, tray, busbars (one per phase plus neutral) to carry Mains Circuit Breaker currents, the termination of all conduits, conductors, sleeves, etc.: **All Circuit Breakers to be equal and approved to Schneider Electric. (Provisional Amounts)**					
1.1.1	Kiosk complete as specified (Floor standing)	item	**1**			R -
1.1.2	DB.A (Flush Mounted)	item	**1**			R -
1.1.3	DB.B (Flush Mounted)	item	**1**			R -
1.1.4	DB.C (Flush Mounted)	item	**0**			R -
1.1.5	DB.GH (Flush Mounted)	item	**1**			R -
1.1.6	Telephone/Data DB (Surface mounted 600mm x 600mm DB with door complete)	item	**1**			R -
1.1.7	Decanting kiosk (PC Amount)	item	**0**			R -
2.	**CHANNELS AND WIRE WAYS**					
2.1	Supply and install OL8000 Wire Channels complete with splice clamps,channel hangers ,threaded rod, coupling nuts, ect. **(Sockets & Lights)**					
2.1.1	**127mm** wide - Wire Channel for power installation	meter	**160**			R -
2.1.2	90 vertical falling	each	**2**			R -
2.1.3	90 vertical rising	each	**2**			R -
2.1.4	Tee	each	**2**			R -
2.1.5	Intersection	each	**1**			R -
2.2	Supply and install GS50 Wire Mesh complete with splice clamps,channel hangers, coupling nuts,horizontal bends, tee's ect.					
2.2.1	**100mm** wide - Medium Duty Wire Mesh for Cable distribution	meter	**80**			R -
2.2.2	External Elbow	each	**3**			R -
2.2.3	Horizontal Elbow	each	**1**			R -
2.2.4	Tee	each	**1**			R -
3.	**POWER SKIRTING**					
3.1	Supply and install metal type power skirting consisting of 2 compartment 2 cover; including cutting ends, covers, elbows, T's, short lenghts, screws, etc. as specified.					
3.1.1	Power skirting	meter	**42**			R -
3.1.2	90° Bends	each	**4**			R -
3.1.3	End caps	each	**22**			R -
4.	**CONDUIT**					
4.1	Supply and install PVC conduit (for Lighting & Power circuits and Security) including cutting, bending, short lengths, 1-/2-/3-/4-way boxes, bushes, locknuts, couplings, saddles, screws etc.					
4.1.1	20mm diameter - Built-in or cast in concrete / ceiling void	meter	**1400**			R -
4.1.2	25mm diameter - Built-in or cast in concrete / ceiling void	meter	**300**			R -
4.1.3	20mm diameter - Built-in or cast in concrete PVC (Lightning protection)	meter	**30**			R -
Amount carried forward						**R -**

Schedule of Quantities						Electrical Installation
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**MATERIAL**	**LABOUR**	**TOTAL PRICE**
Amount brought forward						**R -**
5.	**CONDUIT ACCESSORIES**					
5.1	Supply and install a galvanised draw box complete with a cover plate above each of the distribution boards:					
5.1.1	300mm x 300mm x 100mm	each	**3**			R -
5.1.2	500mm x 500mm x 100mm	each	**1**			R -
5.2	Supply and install pressed steel galvanised wall boxes 1mm thick:					
5.2.1	100mm x 50mm x 50mm deep	each	**50**			R -
5.2.2	100mm x 100mm x 50mm deep	each	**62**			R -
5.2.3	50mm Round Box with lid	each	**20**			R -
5.3	Supply and install PVC wiring box:					
5.3.1	100mm x 50mm x 50mm deep	each	**1**			Rate Only
5.3.2	100mm x 100mm x 50mm deep	each	**13**			R -
5.3.3	50mm Round Box with lid	each	**1**			Rate Only
5.4	Supply and install 1,6mm diameter steel galvanised draw wires drawn into conduit/sleeves:	meter				R -
5.5	Supply and install 100mm x 100mm blank cover plates:	each	**5**			R -
6.	**CONDUCTORS**					
6.1	Supply and install 600/1000Volt PVC insulated stranded copper conductors drawn into conduits, etc.:					
6.1.1	2.5mm²	meter	**3000**			R -
6.1.2	4mm²	meter	**3400**			R -
6.1.2	6mm²	meter	**0**			R -
6.2	Supply and install 600/1000Volt PVC insulated (green) stranded copper earth conductors drawn into conduits, etc.:					
6.2.1	2,5mm²	meter	**0**			R -
6.2.2	2,5mm² BCEW	meter	**2900**			R -
6.2.3	4mm² BCEW	meter	**0**			R -
7.	**SWITCH SOCKETS**					
7.1	Supply, install and connect switch sockets in flush mounted boxes, complete with cover plates (All sockets complete with Vandal Proof Screws):					
7.1.1	16 Amp,1 x Normal 3pin and 1 x Euro 2pin	each	**38**			R -
7.1.2	TV outlet 1 x Normal 3pin, 1 x Euro 2pin and 1 x 4x4 box with blank cover	each	**3**			R -
7.1.3	16 Amp,1 x Normal 3pin and 1 x Euro 2pin (weather proof)	each	**3**			R -
7.2	Supply, install and connect switch sockets in power skirting complete with cover plates.:					
7.2.1	16 Amp Single Socket on power skirting	each	**32**			R -
7.2.2	16 Amp Single Socket (Dedicated) on power skirting	each	**16**			R -
7.2.3	Data RJ45 outlet on power skirting	each	**16**			R -
7.2.4	Tel RJ11 outlet on power skirting	each	**16**			R -
7.3	Supply, install and connect unswitched sockets in ceiling void, complete in a round box with cover plate:					
7.3.1	5 Amp unswitch socket in a round box	each	**180**			R -
Amount carried forward						**R -**

Schedule of Quantities						Electrical Installation
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**MATERIAL**	**LABOUR**	**TOTAL PRICE**
Amount brought forward						**R -**
8.	**ISOLATORS**					
8.1	Supply, install and connect isolators complete in a wallbox including a indication light and cover plate:					
8.1.1	30Amp Double pole isolator for geysers, tumble dryers & stoves	each	**4**			R -
8.1.2	30Amp 3 pole isolator for AC units	each	**0**			R -
8.1.3	20Amp 2 Pole isolator for AC indoor,fresh air and extraction fans	each	**26**			R -
8.1.4	20Amp 2 Pole isolator for AC Outdoor	each	**0**			R -
8.1.5	20Amp 2 Pole isolator for Access Control	each	**0**			R -
8.1.6	30Amp 2 Pole Isolator for 48000BTU H/A	each	**0**			R -
8.2	York S20 Weatherproof box with sliding lid to fit 100mm x 100mm socket outlets.	each	**0**			R -
9.	**LUMINAIRES**					
9.1	Supply, install and connect luminaires complete with lamps, fixings, brass screws, washers, 3-meter 3-core fly lead and 6A socket, etc. (All luminaires must be equal and approved to the luminaires indicated below):					
9.1.1	**New Type A1**	each	**24**			R -
9.1.2	**New Type A2**	each	**51**			R -
9.1.3	**New Type A3**	each	**7**			R -
9.1.4	**New Type A4**	each	**51**			R -
9.1.5	**New Type A5**	each	**0**			R -
9.1.6	**New Type A6**	each	**0**			R -
9.1.7	**New Type B1**	each	**16**			R -
9.1.8	**New Type B2**	each	**5**			R -
9.1.9	**New Type B3**	each	**8**			R -
9.1.10	**New Type B4**	each	**5**			R -
9.1.11	**New Type B5**	each	**0**			R -
9.1.12	**New Type F2**	each	**14**			R -
9.1.13	**New Type F2.1**	each	**2**			R -
9.1.14	**New Type EXIT**	each	**4**			R -
10.	**LIGHT SWITCHES**					
10.1	Supply, install and connect switches in flush mounted boxes, complete with cover plates:					
10.1.1	16 Amp 1-lever / 1-way	each	**36**			R -
10.1.2	16 Amp 1-lever / 2-way	each	**4**			R -
10.1.3	16 Amp 2-lever / 1-way/ 1-way push dimm	each	**0**			R -
10.1.4	16 Amp 3-lever / 1-way / 1-way/ 1-way push dimm	each	**0**			R -
10.1.5	Schneider Flush mounted occupancy sensor with passive infrared **SAE-UE-MS-CDBWE**	each	**0**			R -
10.	Supply, install and connect photo electrical switches complete in a wall mounted box:	each	**2**			R -
11.	**EARTHING AND BONDING**					
11.1	Earthing of all buildings to comply with the latest SABS 0142-1993 *Code of Practice for The Wiring of Premises* as amended and as specified.	item	**sum**			R 3 500.00
11.2	Bonding of all hot, cold and waste pipes complete with 12,5mm x 1mm thick solid or perforated copper tape including fixings, brass screws, nuts, washers, etc.:	item	**sum**			R 2 500.00
12.	**TESTING AND COMMISSIONING**					
12.1	Inspections, testing and handing over of the complete installation in the presence of the Engineer and certify the results on the Certificate of compliance by an accredited person.	item	**sum**			R 7 500.00
Amount carried forward						**R 13 500.00**

Schedule of Quantities						Electrical Installation
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**MATERIAL**	**LABOUR**	**TOTAL PRICE**
Amount brought forward						**R 13 500.00**
13.	**EMERGENCY STANDBY GENERATOR**					
13.1	Full service of the existing 60kVA emergency standby generator, including filters, oil, consumables, etc.	item	**sum**			R -
13.2	Relocation of the existing generator to new position	Item	**sum**			R -
14.	**LIGHTNING PROTECTION INSTALLATION**					
14.1	Supply, install and test a complete lightning protection, installation, including aluminium and copper conductors, test joints, galvanised conduit, earth electrodes, etc:					
14.1.1	Flush mounted down conductors	each	**12**			R -
14.1.2	Joints for electrical continuity	each	**12**			R -
14.1.3	Test and certifying	each	**sum**			R 13 850.00
AMOUNT TO BE CARRIED FORWARD TO ELECTRICAL TENDER SUMMARY						

Schedule of Quantities						Electrical Installation
ITEM	DESCRIPTION	UNIT	QTY	MATERIAL	LABOUR	TOTAL PRICE
	FIRE DETECTION INSTALLATION Supply and install a Fire Detection System, by a specialist (must be SAQCC registered), complete with all accessories and equipment as specified.					
1.	**MAIN FIRE CONTROL PANEL**					
1.1	Supply, install and comission a Main Fire Control panel as per Project Specification.	each	**1**			R -
2.	**MIMIC FIRE PANELS**					
2.1	Supply, install and commission a 600mm x 600mm (minimum) mimic panel with mimic chart, flush mounted against the wall as part of the main fire control panel, indicating all the zones with high intensity LEDs. Mimic chart must indicate the number, room description, etc. of each detector or break glass unit.	each	**1**			Rate Only
3.	**DETECTOR ELEMENTS**					
3.1	Supply and install Detector elements mounted on and including standard round electrical outlet box:					
3.1.1	Optical Smoke/Heat detector fixed to suspended ceiling	each				R -
3.1.2	Optical smoke detectors fixed to suspended ceiling	each	**35**			R -
3.1.3	Optical smoke detectors fixed in ceiling void	each	**8**			R -
3.2	Audible and visual sirens	each	**3**			R -
4.	**BREAK GLASS UNITS - RESETTABLE TYPE**					
4.1	Break glass unit mounted on and including standard round electrical outlet box:					
4.1.1	Break glass unit - resettable type	each	**5**			R -
4.1.2	Testing keys for break glass unit	each	**5**			R -
5.	**WIRING AND CABLING**					
5.1	Wiring and cabling to interconnect and control or monitor the various mediums to complete a workable fire detection control system.	meter	**400**			R -
5.2	Electromagnetic Door Lock (Mag-Lock), 300Kg rating, including door closer (enabling automatic closing of doors)	each				R -
5.3	Air conditioning cut-off control and extraction fan start-up control	each	**2**			R -
6.	**WIRING CHANNELS**					
6.1	Supply and install GS50 Wire Mesh complete with splice clamps,M8 drop in anchors, coupling nuts,horizontal bends, tee's ect. Note: The rates for wiring channels shall include for hangers, splices, jointing, drilling, etc:					
6.1.1	**100mm** wide - Medium Duty Wire Mesh for fire, data & telephone installation	meter	**60**			R -
6.1.2	External Elbow	each	**2**			R -
6.1.3	Horizontal Elbow	each	**2**			R -
6.1.4	Tee	each	**1**			R -
Amount carried forward						**R -**

Schedule of Quantities						Electrical Installation
ITEM	DESCRIPTION	UNIT	QTY	MATERIAL	LABOUR	TOTAL PRICE
Amount brought forward						R -
7.	**WIRING CHANNELS, CONDUITS, SLEEVES & OUTLETS**					
7.1	Supply and install BOSAL conduit (for Fire & Public Address) including cutting, bending, short lengths, 1-/2-/3-/4-way boxes, couplings, saddles, screws etc.					
7.1.1	25mm diameter - Builed-in or cast in concrete	meter	**80**			R -
7.1.2	32mm diameter - Fixed in ceiling void	meter				R -
7.2	Galvanized steel draw wire 1,6mm thick, pulled into fire detection conduits.	meter	**400**			R -
7.3	**General (To complete installation)** Allow for any additional items not listed above to complete the system into working order.	item	**sum**			R 1 500.00
7.4	**Testing and Commissioning** Testing and commissioning of the systems as specified.	item	**sum**			R 3 500.00
7.5	**Training** Training of technical staff in operation and maintaining all the systems as per specification	item	**sum**			R 2 000.00
7.6	**Drawings** Supply to the Electrical consultant three sets of drawings for approval and one set "As built" drawings.	item	**sum**			R 1 000.00
7.7	**Manual and Literature** Supply and delivery of three (3) copies of maintenance and operating instructions as per specification.	item	**sum**			R 1 500.00
7.8	**Guatantee and Maintenance** Guarantee and maintenance during the (twelve) 12 month period as per specification.	item	**sum**			R 9 800.00
AMOUNT TO BE CARRIED FORWARD TO ELECTRICAL TENDER SUMMARY						

SUMMARY

ITEM	DESCRIPTION	TOTAL AMOUNT
1	LOW VOLTAGE DISTRIBUTION	R -
2	SMALL POWER AND LIGHTING	R -
3	FIRE DETECTION INSTALLATION	R -
4	POWER SUPPLY DECANTING UNITS (Provisional Amount)	R 80 000.00
5	CARRIED TO FINAL SUMMARY	

SECTION 9 - MECHANICAL WORKS

FCE CONSULTING ENGINEERS
TEL: 051 403 8596

Summary - Mechanical Services: HVAC

Item No	Description	Total
1	**Bill 1**	
	General Items	R -
2	**Bill 2**	
	Air Conditioning Systems	R -
3	**Bill 3**	
	Ventilation: Fresh Air	R -
4	**Bill 4**	
	Ventilation: Extraction	R -
	TOTTAL CARRIED TO FINAL SUMMARY	**R -**

FCE CONSULTING ENGINEERS
TEL: 051 403 8596

Main Bill - Mechanical

Item No		DESCRIPTION	SIZE & CAPACITY	UNIT	QTY	ITEM	TOTAL
1.	1	**Bill 1 - P&G's**					
1.	2	Technical submittals for all mechanical and electrical equipment i.e., Duct pressure drop, Fan systems, diffuser and weather louvre, etc.		Sum	1		
1.	3	Co-ordinated workshop drawings.		Sum	1		
1.	4	Operating and Maintenance manuals c/w record and as built drawing (electronic and paper format) x3 sets.		Sum	1		
1.	5	Workshop drawings for approval by Consultant		Sum	1		
1.	6	Allow for the compliance with the Occupational Health & Safety Act and Regulations and other statutory requirements (SABS and SANS).		Sum	1		
1.	7	Allow for the guarantee of the complete installation and equipment for a period of 12 Months after installation is completed.		Sum	1		
1.	8	Allow for the full maintenance of the installation and equipment for a period of 12 Months after installation is complete		Sum	1		
1.	9	Training and use of plant for end-user operational staff		Sum	1		
1.	10	Items required by contractor not measured in the bill of quantities. Attach a detailed list if any items is required (Accommodation and traveling)		Sum	1		
1.	11	NOTE: Working at heights 0 - 3m Mechanical contractor allowance for scaffolding.		Sum	1		
1.	12	NOTE: Working at heights 3.1m and above main contractor to supply scaffolding.		Note			
1.	13	Electrical COC certificate on all the mechanical connections and panels.		Sum	1		
1.	14	Labelling of all equipment (AC Units indoors and outdoors, fans and electrical control boards etc)		Sum	1		
1.	15	All PC and Allowance Amounts in Bill to be final priced by contractor once information is available		Note			
1.	16	All items is re-measurable after installation and workshop drawing approvals by engineer.		Note			
1.	17	All Hide Away Ducted Split Units, complete with supply and return grilles and plenums. Refrigerant piping, electrical power and communications cabling. All ducting to be externally lagged c/w strapping.		Note			
1.	18	All air conditioning equipment must be installed and commissioned by a qualified air conditioning technician.		Note			
1.	19	All Supply Air Galvanised ducting complete with brackets, strapping and support for trusses installation. Ducting complete externally lagged with 25mm FRK, clamps and sealant. Ducting in this area to be site measured before manufacturing and work drawings to be issued for approval by engineer.		Note			
1.	20	All Return Air Galvanised ducting complete with brackets, strapping and support for wooden trusses installation. Ducting externally lagged with 25mm FRK, clamps and sealant. Ducting in this area to be site measured before manufacturing and work drawings to be issued for approval by engineer.		Note			
1.	21	All ventilation equipment must be installed and commissioned by a qualified HVAC technician.		Note			
1.	22	All Galvanised ducting systems (all cross brake type) complete with hangers and support brackets for truss installation.		Note			
1.	23	**Total - Bill 1 carried over to summary page**					
	24						

2.	25	**Bill 2 - Air Conditioning Systems**					
2.	26						
2.	27	**EMERGENGY ROOM (CAS 2)(B)**					
2.	28	Cassette Inverter type split aircon unit, complete with installation, testing and commissioning.	18 000 BTU	no	1		
2.	29	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	30	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	31	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	32	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	33	**VITALS ROOM (CAS 3)(A)**					
2.	34	Cassette Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	35	Refrigerant copper piping c/w Armaflex lagging.		m	20		
2.	36	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	37	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	38	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	39	**MULTI - PURPOSE ROOM (CAS 6)(C)**					
2.	40	Cassette Inverter type split aircon unit, complete with installation, testing and commissioning.	24 000 BTU	no	1		
2.	41	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	42	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	43	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	44	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	45	**CHRONIC CARE CONSULTING (MW 1)(A)**					
2.	46	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	47	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	48	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	49	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	50	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	51	**MINOR AILMENTS CONSULTING (MW 2)(A)**					
2.	52	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	53	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	54	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	55	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	56	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	57	**ACUTE CHRONIC COUNCELLING (MW 3)(A)**					
2.	58	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	59	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	60	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	61	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	62	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	63	**CCMD (MW 4)(A)**					
2.	64	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	65	Refrigerant copper piping c/w Armaflex lagging.		m	20		
2.	66	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	67	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		

2.	68	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	69	**OUTREACH OFFICE (MW 5)(A)**					
2.	70	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	71	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	72	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	73	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	74	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	75	**SERVER ROOM (MW 6)(A)**					
2.	76	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	77	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	78	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	79	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	80	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	81	**CHILD HEALTH CONULTING (MW 7)(A)**					
2.	82	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	83	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	84	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	85	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	86	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	87	**MATERNAL HEALTH CONSULTING (MW 8)(A)**					
2.	88	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	89	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	90	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	91	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	92	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	93	**STAFF REST (MW 9)(A)**					
2.	94	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	95	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	96	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	97	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	98	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	99	**MANAGERS OFFICE (MW 10)(A)**					
2.	100	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	101	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	102	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	103	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		
2.	104	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	105	**MEDICINE STORE (MW11 1)(A)**					
2.	106	High Wall Inverter type split aircon unit, complete with installation brackets, electrical connection, wire ways, testing and commissioning.	12 000 BTU	no	1		
2.	107	Refrigerant copper piping c/w Armaflex lagging.		m	15		
2.	108	Galvanised trunking for refrigerant piping (outdoor)		m	8		
2.	109	PVC trunking for electrical cables, refrigerant piping and condensate pipe (indoor)		m	2		

2.	110	Condenser brackets, 600mm long, complete with anti vibration mounting fixed to brick wall.		no	1		
2.	111	**Total - Bill 2 carried over to summary page**					
	112						
	113	**Bill 3 - Ventilation Systems: Fresh Air**					
	114						
3.	115	**SUB WAITING: MOTHER & CHILD (FAF 1)(1) AND MINOR/CRONIC (FAF 4)(1)**					
3.	116	Weather Louvre, anodised and complete with wire mesh (Colour TBC)	500x400 opening size	no	2		
3.	117	Wooden frame to be build in by builder for plenum installation	500x400	no	2		
3.	118	Galv plenum box	500x400x500(D)	no	2		
3.	119	Inline type fan complete with pod type sound attenuators (900mm long), AMS/Luft type, installed on frame with anti vibration mounting in roof trusses.	435 l/s @ 200Pa	no	2		
3.	120	Galv Square to round	Fan to 500x400	no	2		
3.	121	Galv Square to round	Fan to 250x400	no	2		
3.	122	Canvas connection complete with earthing strap	Fan to Square to Round	no	4		
3.	123	Galv straight ducting	250x400	m	6		
3.	124	Galv Spigots - Oval	Dia 450mm	no	2		
3.	125	Flexible connection c/w clamps and tape finish	Dia 450mm	m	8		
3.	126	Galv Grill plenum box complete with 1xø450mm spigot connection.	595x595x250(h) c/w Dia 450 spigot	no	8		
3.	127	Single deflection return air hinged grille, complete with 50mm washable filter mounted in 600x600 grid suspended ceiling. (No handle, Anodised: Colour TBA)	595x595	no	2		
3.	128	Electrical Connection from Isolator to fan		no	1		
3.	129	Fan speed controller complete with occupancy control. DB by HVAC contractors (to switch by light/occupancy sensor),		no	1		
3.	130	Air balancing of extraction systems and witnessed by engineer		no	1		
3.	131	**Total - Bill 3 carried over to summary page**					
	132						
	133	**Bill 4 - Ventilation Systems: Extraction**					
	134						
4.	135	**SUB WAITING: MINOR/CRONIC (EAF 1)(1)**					
4.	136	Weather Louvre, anodised and complete with wire mesh (Colour TBC)	500x400 opening size	no	1		
4.	137	Wooden frame to be build in by builder for plenum installation	500x400	no	1		
4.	138	Galv plenum box c/w ø350 spigot connection	500x400x500(D)	no	1		
4.	139	Inline type fan complete with pod type sound attenuators (900mm long), AMS/Luft type, installed on frame with anti vibration mounting in trusses.	435 l/s @ 200Pa	no	1		
4.	140	Galv. spiral	ø350	m	1		
4.	141	Galv. spiral bend	ø350	no	1		
4.	142	Galv. Square to round	Fan to 350x300	no	1		
4.	143	Canvas connection complete with earthing strap	Fan to Square to Round	no	1		
4.	144	Canvas connection complete with earthing strap	Fan to Spiral bend	no	1		
4.	145	Galv straight ducting	350x300	m	2		
4.	146	Galv ducting 90bend	350x300	no	1		
4.	147	Grill Plenum / wall sleeve to be painted black inside	500x350(ø300mm)	no	1		
4.	148	Single deflection grille, mounted inside wall. (No handle, Anodised: Colour TBA)	500x350 opening size	no	1		
4.	149	Electrical Connection from Isolator to fan		no	1		
4.	150	Fan speed controller complete with occupancy control, DB by HVAC contractors (to switch by light/occupancy sensor)		no	1		
4.	151	Air Balancing of Extraction systems and witnessed by engineer		no	1		
4.	152	**TOILET VENTILATION (EAF 2)(2)**					
4.	153	Weather Louvre, anodised and complete with wire mesh (Colour TBC)	500x400	no	1		

4.	154	Wooden frame to be build in by builder for plenum installation	500x400	no	1		
4.	155	Galv plenum box	500x400x400mm (D)	no	1		
4.	156	Inline type fan complete with pod type sound attenuators (900mm long), AMS/Luft type, installed on frame with anti vibration mounting in roof trusses and canvas connections.	366 l/s @ 250Pa	no	1		
4.	157	Galv Square to round	Fan to 500x400	no	1		
4.	158	Galv Square to round	Fan to 300x200	no	1		
4.	159	Canvas connection complete with earthing strap	Fan to Square to Round	no	2		
4.	160	Galv straight ducting	300x200	m	1.5		
4.	161	Galv straight ducting	200x200	m	4		
4.	162	Galv straight ducting	200x150	m	4		
4.	163	Galv straight ducting	150x150	m	1		
4.	164	Galv shoe	200x200	no	1		
4.	165	Galv shoe	200x150	no	1		
4.	166	Galv ducting 90bend	200x200	no	1		
4.	167	Disk valve complete with butterfly type balancing damper installed in grid suspended ceiling	Dia 150mm	no	6		
4.	168	Flexible connection c/w clamps and tape finish	Dia 150mm	m	10		
4.	169	Galv Stop end	200x150	no	1		
4.	170	Flat Plate spigots	Dia 150mm	no	6		
4.	171	Galv Transformation	200x200 to 200x150	no	1		
4.	172	Galv Transformation	200x150 to 150x150	no	1		
4.	173	Door grilles	400x400	no	5		
4.	174	Electrical Connection from Isolator to fan control DB (by ac contractor)		no	1		
4.	175	Fan speed controller complete with occupancy control. DB by HVAC contractors(to switch by light/occupancy sensor.)		no	1		
4.	176	Air Balancing of Extraction systems and witnessed by engineer		no	1		
4.	177	**EMERGENCY ROOM VENTILATION (EAF 3)(3)**					
4.	178	Weather Louvre, anodised and complete with wire mesh (Colour TBC)	500x400	no	1		
4.	179	Wooden frame to be build in by builder for plenum installation	500x400	no	1		
4.	180	Galv plenum box	500x400x400mm (D)	no	1		
4.	181	Inline type fan complete with pod type sound attenuators (900mm long), AMS/Luft type, installed on frame with anti vibration mounting in roof trusses and canvas connections.	235 l/s @ 250Pa	no	1		
4.	182	Galv Square to round	Fan to 500x400	no	1		
4.	183	Galv Square to round	Fan to 300x200	no	1		
4.	184	Canvas connection complete with earthing strap	Fan to Square to Round	no	2		
4.	185	Galv straight ducting	300x200	m	1.5		
4.	186	Galv straight ducting	200x200	m	6		
4.	187	Galv shoe	200x200	no	1		
4.	188	Galv ducting 90bend	200x200	no	1		
4.	189	Disk valve complete with butterfly type balancing damper installed in grid suspended ceiling	Dia 200mm	no	3		
4.	190	Flexible connection c/w clamps and tape finish	Dia 200mm	m	5		
4.	191	Galv Stop end	300x200	no	2		
4.	192	Flat Plate spigots	Dia 200mm	no	3		
4.	193	Door grilles	400x400	no	1		
4.	194	Electrical Connection from Isolator to fan control DB (by ac contractor)		no	1		
4.	195	Fan speed controller complete with occupancy control. DB by HVAC contractors(to switch by light/occupancy sensor.)		no	1		
4.	196	Air Balancing of Extraction systems and witnessed by engineer		no	1		
4.	197	**MOTHERS ROOM WC (WMF 3)(4)**					
4.	198	Wall mounted type fan c/w electrical connection and occupancy sensor switch.	50 L/S	no	1		
4.	199	Door grilles	400x400	no	2		
4.	200	**STAFF TOILET & LOCKER (WMF 4)(4)**					

4.	201	Wall mounted type fan c/w electrical connection and occupancy sensor switch.	50 L/S	no	1		
4.	202	Door grilles	400x400	no	2		
4.	203	**GENERAL STORE (WMF 5)(4)**					
4.	204	Staff toilet & locker extraction wall mounted type fan (to switch by light/occupancy sensor.)	50 L/S	no	1		
4.	205	Door grilles	400x400	no	1		
4.	206	**DIRTY UTILITIES (WMF 6)(4)**					
4.	207	Staff toilet & locker extraction wall mounted type fan (to switch by light/occupancy sensor.)	50 L/S	no	1		
4.	208	Door grilles	400x400	no	1		
4.	209	**CLEANERS ROOM (WMF 7)(4)**					
4.	210	Staff toilet & locker extraction wall mounted type fan (to switch by light/occupancy sensor.)	50 L/S	no	1		
4.	211	Door grilles	400x400	no	1		
4.	212	**SUB WAITING: MOTHER & CHILD (WMF 8)(1)**					
4.	213	Wall mounted type extractor fan c/w installation, connection to isolator and controls (to switch by light/occupancy sensor.)	435L/s @ 200Pa	no	1		
4.	214	**Total - Bill 4 carried over to summary page**					

FINAL SUMMARY

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Section No		Page No		Amount
	PART 1			
1	SECTION 1 - PRELIMINARIES & GENERAL	38	R	
2	SECTION 2 - ALTERATIONS	48	R	
3	SECTION 3 - NEW BUILDING WORKS	116	R	
4	SECTION 4 - PROVISIONAL SUMS & BUDGETARY ALLOWANCES	118	R	
	Sub-total A		R	
	PART 2			
5	Civil Works (Vat excl. Carried over from a separate document Civil Bills of Quantities)	Item	R	
6	Electrical Works (Vat excl. Carried over from a separate document Electrical Bills of Quantities)	Item	R	
7	Mechanical Works (Vat excl. Carried over from a separate document Mechanical Bills of Quantities)	Item	R	
	Sub-total B		R	-
	SKILLS DEVELOPMENT			
	Allow **0.5% Minimum Contract Skills Development Goal (CSDG)** to be used as directed by the Employer/Employer's representative and to be deducted in		R	-
	Sub-total C		R	-
	ESCALATION			
	Allow **5% Escalation** to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.		R	-
	Sub-total D		R	-
	CONTINGENCY ALLOWANCE			
	Allow **5% Contingencies** to be used as directed by the Employer/Employer's representative and to be deducted in whole or in part if not required.		R	-
	Sub-total E		R	-
	Value Added Tax (15%)		R	-
	Carried to Form of Tender		R	-