

Item No		Quantity	Rate	Amount
	<p><u>SECTION No.1</u></p> <p><u>BILL NO.1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p><u>CPAP WORK GROUP NO. 190</u></p> <p>HAYLETT FORMULA WORK GROUP NO.190 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 190 for Haylett Formula purposes</p> <p>The JBCC Principal Building Agreement (May 2018 Edition 6.2) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described</p> <p>The JBCC Principal Building Agreement contract data form an integral part of this agreement</p> <p>The Preliminaries revision 1 (February 2016) published by the Association of South African Quantity Surveyors for use with the JBCC Principal Building Agreement Edition 6.2 shall be deemed to be incorporated in these bills of quantities, amended as hereinafter described</p> <p>The contractor is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause</p> <p>The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only</p> <p>Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"</p> <p>Where standard clauses or alternatives are not entirely applicable to this agreement such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>			
			ZAR	

Item No		Quantity	Rate	Amount
	<p><u>PREAMBLES FOR TRADES</u></p> <p>The Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p>Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the Model Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include for all of the obligations, requirements and specifications given in the Model Preambles and in any supplementary preambles and/or specifications</p> <p><u>STRUCTURE OF THIS PRELIMINARIES BILL</u></p> <p>Section A : A recital of the headings of the individual clauses of the aforementioned JBCC Principal Building Agreement</p> <p>Section B : A recital of the headings of the individual clauses of the aforementioned Preliminaries document</p> <p>Section C : Any special clauses to meet the particular circumstances of the project</p> <p><u>PRICING OF PRELIMINARIES</u></p> <p>Should the contractor select Option A in the contract data for the adjustment of preliminaries, the amounts entered against the relevant items in these preliminaries are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)</p> <p><u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u></p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>			
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Item No		Quantity	Rate	Amount
1	<p><u>Interpretation (A1-A7)</u></p> <p>Clause 1.0 - Definitions and interpretation</p> <p>Definition of agreement</p> <p>The definition of agreement is replaced with the following definition :</p> <p>"AGREEMENT : The JBCC Principal Building Agreement, the completed JBCC PBA contract data, the contract drawings, the priced documents and any other documents reduced to writing and signed by the parties"</p> <p>Pricing of bills of quantities</p> <p>The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities</p> <p>Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained</p> <p>Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary</p> <p>Abbreviated descriptions</p>			
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	<p>The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practice</p> <p>Legal status of contractor</p> <p>If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:</p> <ol style="list-style-type: none"> These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement These persons shall notify the employer of their leader who has authority to bind the contractor and each of these persons The contractor shall not alter its composition or legal status without the prior written consent of the employer <p>Errata by JBCC</p> <p>Omit from definition of construction period the words : "excluding annual holiday periods"</p> <p>Omit from definition of preliminaries the word : "priced"</p> <p>F:..... V:..... T:.....</p>			
2	<p>Clause 2.0 - Law, regulations and notices</p> <p>Health and safety</p>	Item		
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993. It is specifically stated that the employer shall prepare a documented health and safety specification for the works (refer to Annexure 15 for a copy of the relevant specification) and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]</p> <p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Co-operate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification 			
3	<p>Clause 3.0 - Offer and acceptance</p> <p>F:..... V:..... T:.....</p>	Item		
4	<p>Clause 4.0 - Assignment and cession</p> <p>F:..... V:..... T:.....</p>	Item		
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5	<p>Clause 5.0 - Contract documents</p> <p>Value Added Tax</p> <p>Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)</p> <p>Contract drawings</p> <p>The contract drawings are as listed on the contents page of the bills of quantities [5.1]</p> <p>Priced document as specification</p> <p>Clause 5.3 is deemed to be deleted</p> <p>The principal agent shall decide which portion of the priced document may be used as a specification of materials and goods or methods, if any</p> <p>Electronic issue of drawings</p> <p>All drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.5]</p> <p>Precedence</p> <p>Clause 5.6 is deemed to be deleted. The provisions of this Bill No. 1 (Preliminaries) shall take precedence over any other documents which constitute this agreement [5.6]</p> <p>F:..... V:..... T:.....</p>			
6	<p>Clause 6.0 - Employer's agents</p> <p>Delegated authority</p> <p>The authority of the principal agent to issue contract instructions and perform duties for specific aspects of the works is delegated to agents as follows [6.2]:</p> <p>1. <u>Architect</u></p> <p><i>Note that the contract instructions hereinafter are those listed in clause 17.0 of the JBCC PBA</i></p>	Item		
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Item No		Quantity	Rate	Amount
	<p>1.1 Duties :</p> <p>The architect is responsible for the architectural design, functional design and quality inspection of the works</p> <p>1.2 Contract instructions [17.0] :</p> <p>1.2.1 Rectification of discrepancies, errors in descriptions or omissions in contract documents other than this agreement</p> <p>1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>1.2.3 The site [13.2.4]</p> <p>1.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>1.2.5 Provision and testing of samples of materials and goods, of finishes and assemblies of elements of the works</p> <p>1.2.6 Opening up of work for inspection, removal or re-execution</p> <p>1.2.7 Removal or re-execution of work</p> <p>1.2.8 Removal or substitution of any materials and goods</p> <p>1.2.9 Protection of the works</p> <p>1.2.10 Making good physical loss and repairing damage to the works [8.0]</p> <p>1.2.11 Rectification of defects [21.2]</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p>1.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion and a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>1.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums</p> <p>1.2.14 Appointment of a subcontractor [14.0; 15.0]</p> <p>1.2.15 Termination of a nominated n/s subcontract agreement [27.2.8]</p> <p>1.2.16 Work by (a) direct contractor(s) [16.0]</p> <p>1.2.17 Access by other or previous contractors to remedy defective work</p> <p>1.2.18 Removal from the site of any person employed on the works</p> <p>1.2.19 Removal from the site of any person not engaged on or connected with the works</p> <p>1.2.20 On termination, protection of the works, removal of construction equipment and surplus materials and goods [29.0]</p> <p>2. <u>Quantity surveyor</u></p> <p><i>Note that the contract instructions hereinafter are those listed in clause 17.0 of the JBCC PBA</i></p>			
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Item No		Quantity	Rate	Amount
	<p>2.1 Duties :</p> <p>The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works</p> <p>2.2 Contract instructions [17.0] :</p> <p>2.2.1 Rectification of discrepancies, errors in descriptions or omissions in contract documents other than this agreement</p> <p>2.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>2.2.3 The site [13.2.4]</p> <p>2.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>2.2.5 Provision and testing of samples of materials and goods, of finishes and assemblies of elements of the works</p> <p>2.2.6 Opening up of work for inspection, removal or re-execution</p> <p>2.2.7 Removal or re-execution of work</p> <p>2.2.8 Removal or substitution of any materials and goods</p> <p>2.2.9 Protection of the works</p> <p>2.2.10 Making good physical loss and repairing damage to the works [8.0]</p> <p>2.2.11 Rectification of defects [21.2]</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>		ZAR	

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	<p>2.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion and a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>2.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums</p> <p>2.2.14 Appointment of a subcontractor [14.0; 15.0]</p> <p>2.2.15 Termination of a nominated n/s subcontract agreement [27.2.8]</p> <p>2.2.16 Work by (a) direct contractor(s) [16.0]</p> <p>2.2.17 Access by other or previous contractors to remedy defective work</p> <p>2.2.18 Removal from the site of any person employed on the works</p> <p>2.2.19 Removal from the site of any person not engaged on or connected with the works</p> <p>2.2.20 On termination, protection of the works, removal of construction equipment and surplus materials and goods [29.0]</p> <p>3. <u>Civil and structural engineer</u></p> <p><i>Note that the contract instructions hereinafter are those listed in clause 17.0 of the JBCC PBA</i></p> <p>3.1 Duties :</p> <p>The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works</p>			
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	<p>3.2 Contract instructions [17.0] :</p> <p>3.2.1 Rectification of discrepancies, errors in descriptions or omissions in contract documents other than this agreement</p> <p>3.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>3.2.3 The site [13.2.4]</p> <p>3.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>3.2.5 Provision and testing of samples of materials and goods, of finishes and assemblies of elements of the works</p> <p>3.2.6 Opening up of work for inspection, removal or re-execution</p> <p>3.2.7 Removal or re-execution of work</p> <p>3.2.8 Removal or substitution of any materials and goods</p> <p>3.2.9 Protection of the works</p> <p>3.2.10 Making good physical loss and repairing damage to the works [8.0]</p> <p>3.2.11 Rectification of defects [21.2]</p> <p>3.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion and a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p>			
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	<p>4.2.1 Rectification of discrepancies, errors in descriptions or omissions in contract documents other than this agreement</p> <p>4.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>4.2.3 The site [13.2.4]</p> <p>4.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>4.2.5 Provision and testing of samples of materials and goods, of finishes and assemblies of elements of the works</p> <p>4.2.6 Opening up of work for inspection, removal or re-execution</p> <p>4.2.7 Removal or re-execution of work</p> <p>4.2.8 Removal or substitution of any materials and goods</p> <p>4.2.9 Protection of the works</p> <p>4.2.10 Making good physical loss and repairing damage to the works [8.0]</p> <p>4.2.11 Rectification of defects [21.2]</p> <p>4.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion and a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p>			
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Item No		Quantity	Rate	Amount
	<p>5.2.1 Rectification of discrepancies, errors in descriptions or omissions in contract documents other than this agreement</p> <p>5.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>5.2.3 The site [13.2.4]</p> <p>5.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>5.2.5 Provision and testing of samples of materials and goods, of finishes and assemblies of elements of the works</p> <p>5.2.6 Opening up of work for inspection, removal or re-execution</p> <p>5.2.7 Removal or re-execution of work</p> <p>5.2.8 Removal or substitution of any materials and goods</p> <p>5.2.9 Protection of the works</p> <p>5.2.10 Making good physical loss and repairing damage to the works [8.0]</p> <p>5.2.11 Rectification of defects [21.2]</p> <p>5.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion and a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p>			
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5.2.13	Expenditure of budgetary allowances, prime cost amounts and provisional sums			
5.2.14	Appointment of a subcontractor [14.0; 15.0]			
5.2.15	Termination of a nominated n/s subcontract agreement [27.2.8]			
5.2.16	Work by (a) direct contractor(s) [16.0]			
5.2.17	Access by other or previous contractors to remedy defective work			
5.2.18	Removal from the site of any person employed on the works			
5.2.19	Removal from the site of any person not engaged on or connected with the works			
5.2.20	On termination, protection of the works , removal of construction equipment and surplus materials and goods [29.0]			
6.	<u>Wet services engineer</u>			
	<i>Note that the contract instructions hereinafter are those listed in clause 17.0 of the JBCC PBA</i>			
6.1	Duties :			
	The wet services engineer is responsible for all the aspects of wet services engineering design and quality inspection of the works			
6.2	Contract instructions [17.0] :			
6.2.1	Rectification of discrepancies, errors in descriptions or omissions in contract documents other than this agreement			
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6.2.2	Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works			
6.2.3	The site [13.2.4]			
6.2.4	Compliance with the law , regulations and bylaws [2.1]			
6.2.5	Provision and testing of samples of materials and goods , of finishes and assemblies of elements of the works			
6.2.6	Opening up of work for inspection, removal or re-execution			
6.2.7	Removal or re-execution of work			
6.2.8	Removal or substitution of any materials and goods			
6.2.9	Protection of the works			
6.2.10	Making good physical loss and repairing damage to the works [8.0]			
6.2.11	Rectification of defects [21.2]			
6.2.12	A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion and a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion			
6.2.13	Expenditure of budgetary allowances, prime cost amounts and provisional sums			
6.2.14	Appointment of a subcontractor [14.0; 15.0]			
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6.2.15	Termination of a nominated n/s subcontract agreement [27.2.8]			
6.2.16	Work by (a) direct contractor(s) [16.0]			
6.2.17	Access by other or previous contractors to remedy defective work			
6.2.18	Removal from the site of any person employed on the works			
6.2.19	Removal from the site of any person not engaged on or connected with the works			
6.2.20	On termination, protection of the works , removal of construction equipment and surplus materials and goods [29.0]			
7.	<u>Fire consultant</u>			
	<i>Note that the contract instructions hereinafter are those listed in clause 17.0 of the JBCC PBA</i>			
7.1	Duties :			
	The fire consultant is responsible for all aspects of rational fire design and quality inspection of the works			
7.2	Contract instructions [17.0] :			
7.2.1	Rectification of discrepancies, errors in descriptions or omissions in contract documents other than this agreement			
7.2.2	Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works			
7.2.3	The site [13.2.4]			
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	7.2.4 Compliance with the law , regulations and bylaws [2.1]			
	7.2.5 Provision and testing of samples of materials and goods , of finishes and assemblies of elements of the works			
	7.2.6 Opening up of work for inspection, removal or re-execution			
	7.2.7 Removal or re-execution of work			
	7.2.8 Removal or substitution of any materials and goods			
	7.2.9 Protection of the works			
	7.2.10 Making good physical loss and repairing damage to the works [8.0]			
	7.2.11 Rectification of defects [21.2]			
	7.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion and a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion			
	7.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums			
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	7.2.15 Termination of a nominated n/s subcontract agreement [27.2.8]			
	7.2.16 Work by (a) direct contractor(s) [16.0]			
	7.2.17 Access by other or previous contractors to remedy defective work			
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	<p>7.2.18 Removal from the site of any person employed on the works</p> <p>7.2.19 Removal from the site of any person not engaged on or connected with the works</p> <p>7.2.20 On termination, protection of the works, removal of construction equipment and surplus materials and goods [29.0]</p> <p>8. <u>Health and safety consultant</u></p> <p><i>Note that the contract instructions hereinafter are those listed in clause 17.0 of the JBCC PBA</i></p> <p>8.1 Duties :</p> <p>The health and safety consultant is responsible for all aspects of health and safety of the works. Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works:</p> <p>8.1.1 Act as the employer's agent in terms of Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993</p> <p>8.1.2 Prepare and update the health and safety specification for the works</p> <p>8.1.3 Agree with the contractor the health and safety plan for the works</p> <p>8.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the Act and Regulations</p> <p>8.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to</p>			
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7	F:..... V:..... T:..... Clause 7.0 - Design responsibility F:..... V:..... T:.....	Item		
	<u>Insurance and security (A8-A11)</u>			
8	Clause 8.0 - Works risk F:..... V:..... T:.....	Item		
9	Clause 9.0 - Indemnities F:..... V:..... T:.....	Item		
10	Clause 10.0 - Insurances F:..... V:..... T:.....	Item		
11	Clause 11.0 - Security Security for payment The employer shall provide to the contractor security for payment in the amount of Rand (R.....) [11.4.1,11.10] Extension of waiver of lien The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10] Errata by JBCC Clause 11.5 Replace "ten (10)" with "five (5)" F:..... V:..... T:.....	Item		
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12	<p><u>Execution (A12 - A17)</u></p> <p>Clause 12.0 - Duties of the parties</p> <p>Provisions of clauses 12.1.2 to 12.1.6 and 12.2.18</p> <p>Refer to the contract data, the Preliminaries document and "Section B : Preliminaries" of this Bill No. 1 with reference to the provisions of clauses 12.1.2 to 12.1.6 and 12.2.18 of the JBCC Principal Building Agreement</p> <p>Office accommodation</p> <p>The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]</p> <p>Notice board</p> <p>The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor, and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]</p> <p>Access to water, sewer, stormwater and electricity connections</p> <p>The employer is not in a position to identify access to water, sewer, stormwater and/or electricity connections to the site as may be suitable for the execution of the works. The contractor is to allow what he considers to be required and is to qualify his tender in detail in this regard, failing which it shall be taken that the contractor has allowed what will be required for the execution of the works. In such case no claims for additional cost or loss shall be entertained [12.1.5]</p> <p>Statutory and other notices</p>			
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	<p>The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the works by the contractor. The contractor shall pay all deposits or fees in this regard [12.1.6]</p> <p>It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto</p> <p>Errata by JBCC</p> <p>Clause 12.2.17 Omit the words "[CD] within ten (10) working days"</p> <p>F:..... V:..... T:.....</p>			
13	<p>Clause 13.0 - Setting out</p> <p>F:..... V:..... T:.....</p>	Item		
14	<p>Clause 14.0 - Nominated subcontractors</p> <p>Errata by JBCC</p> <p>Clause 14.1.4 Reference should read "[17.1.14]" Clause 14.6 Reference should read "[17.1.15; 27.1.8]" Clause 14.7.2 Reference should read "[27.1.8]" Clause 14.7.3 Reference should read "[27.2.8]"</p> <p>F:..... V:..... T:.....</p>	Item		
15	<p>Clause 15.0 - Selected subcontractors</p> <p>Errata by JBCC</p> <p>Clause 15.2 Reference should read "[17.1.14]" Clause 15.7.2 Reference should read "[27.1.8]" Clause 15.7.3 Reference should read "[27.2.8]"</p> <p>F:..... V:..... T:.....</p>	Item		
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>		ZAR	

Item No		Quantity	Rate	Amount
16	<p>Clause 16.0 - Direct contractors</p> <p>Attendance on direct contractors</p> <p>In respect of direct contractors the contractor shall:</p> <ol style="list-style-type: none"> Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials Allow the use of personnel welfare facilities, where provided Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1] <p>Errata by JBCC</p> <p>Clause 16.1.3 Reference should read "[26.5]"</p> <p>F:..... V:..... T:.....</p>	Item		
17	<p>Clause 17.0 - Contract instructions</p> <p>Site instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>Errata by JBCC</p> <p>Clause 17.1.3 Reference should read "[13.2.4]"</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>		ZAR	

Item No		Quantity	Rate	Amount
	F:..... V:..... T:.....	Item		
	Completion (A18 - A24)			
18	Clause 18.0 - Interim completion F:..... V:..... T:.....	Item		
19	Clause 19.0 - Practical completion F:..... V:..... T:.....	Item		
20	Clause 20.0 - Sectional completion Errata by JBCC Clause 20.2.2 Reference should read "[21.6.2]" F:..... V:..... T:.....	Item		
21	Clause 21.0 - Defects liability period and final completion Errata by JBCC Clause 21.1 Delete the word "final" in the second last line Reference should read "[21.6.1]" Clause 21.9 Reference should read "[21.4 ; 21.6.1]" F:..... V:..... T:.....	Item		
22	Clause 22.0 - Latent defects liability period F:..... V:..... T:.....	Item		
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Item No		Quantity	Rate	Amount
23	<p>Clause 23.0 - Revision of date for practical completion</p> <p>Substitution of materials and goods</p> <p>The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8, 23.1 & 2]</p> <p>Errata by JBCC</p> <p>Clause 23.2 Reference should read "[26.7]" Clause 23.2.1 Reference should read "[12.1.7]"</p> <p>F:..... V:..... T:.....</p>			
24	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Payment (A25 - A27)</p>			
25	<p>Clause 25.0 - Payment</p> <p>Materials and goods prematurely on site</p> <p>Materials and goods brought onto the site prematurely shall not be authorised for payment [25.3.2]</p> <p>Materials and goods stored off site</p> <p>Materials and goods stored off site shall not be authorised for payment [25.3.2]</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [25.3.4]</p>	Item		
	<p>Carried to Collection</p>			
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Item No		Quantity	Rate	Amount
	<p>Prices submitted</p> <p>Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing</p> <p>Errata by JBCC</p> <p>Clause 25.2 The word : "final" in bold in the second line</p> <p>Clause 25.10.3 Reference should read "[25.13 ; 26.10]"</p> <p>New clause 25.12.4 Add the words : "Terminate the agreement [29.14.7] where the listed options [25.12.1-3] have failed"</p> <p>F:..... V:..... T:.....</p>			
26	<p>Clause 26.0 - Adjustment of the contract value and final account</p> <p>Tenant installations/users requirements delayed</p> <p>There is a possibility that certain works related to tenant installations/users requirements may have to be delayed and may consequently not be executed prior to practical completion</p> <p>The employer reserves the right to omit such work without compensation to the contractor for loss of profit or any other loss which the contractor may suffer as a result of such omission</p> <p>Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries appurtenant to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works</p>	Item		
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p>Cost of claims</p> <p>All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this agreement [30.6,7] from making a determination on costs</p> <p>The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]</p> <p>Errata by JBCC</p> <p>Clause 26.4.2 Omit the entire clause and renumber thereafter New clause 26.4.3 "Other proven or unavoidable costs"</p> <p>F:..... V:..... T:.....</p>			
27	<p>Clause 27.0 - Recovery of expense and/or loss</p> <p>F:..... V:..... T:.....</p>	Item		
	<p><u>Suspension and termination (A28 - A29)</u></p> <p>Clause 28.0 - Suspension by the contractor</p> <p>Errata by JBCC</p> <p>New clause 28.1.5 and renumber thereafter "Or where an agent has failed to act in terms of this agreement [6.4] Clause 28.2 Replace the word "defect" with "default" in the first line</p> <p>F:..... V:..... T:.....</p>			
28	<p>Clause 28.0 - Suspension by the contractor</p>			
	<p>Clause 29.0 - Termination</p>	Item		
29				
	<p>Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>		ZAR	

Item No		Quantity	Rate	Amount
	Errata by JBCC Clause 29.1.2 Delete the words : "within the period stated [CD]" Clause 29.14.1 Change as follows : "Provide or maintain a guarantee for payment[11.4 - 5]" Clause 29.14.2 Reference should read "[12.1.7]" New clause 29.14.8 "Or where an agent has failed to act in terms of this agreement [6.4]" F:..... V:..... T:.....	Item		
	Dispute resolution (A30) Clause 30.0 - Dispute resolution F:..... V:..... T:.....	Item		
30				
31	Agreement The second sentence of the introduction where the parties sign the agreement , namely "Any provision in this agreement acceptance by such subcontractor at any time." is deemed to be deleted The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties F:..... V:..... T:.....	Item		
32	Contract data Payment of preliminaries Where Option B is applicable and the initial construction period is extended the monthly charge shall be recalculated on the same basis as was initially applied but taking into account the revised construction period and the amounts already paid to the contractor [CD26.0]			
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Item No		Quantity	Rate	Amount
	<p>Adjustment of preliminaries</p> <p>Where the adjustment of preliminaries is in terms of Option A, the construction period and the initial construction period shall be calculated in working days [CD 26.0]</p> <p>Where the adjustment of preliminaries is in terms of Option A and sectional completion is required, the contractor shall provide the principal agent with the division of the categorised amounts into sections. Should the contractor fail to provide such information within the period stipulated, the categorised amounts shall be prorated to the value of each section [CD 26.0]</p> <p>Where the adjustment of preliminaries is required in terms of Option B and sectional completion is required, the contractor shall provide the principal agent with details of the resources required for each section and those that are common to sections. Should the contractor fail to provide such information within the period stipulated, Option A shall apply [CD 26.0]</p> <p>Removal of lateral support insurance</p> <p>Whilst it is stated in clause 10.0 of the contract data that the employer will not be responsible for works and other insurances the employer shall nevertheless be responsible for the removal of lateral support insurance in the amount stated</p> <p>Tenderer's selection</p> <p>Before submission of his tender the contractor is to complete the tenderer's selection in the contract data</p> <p>Note 4 on page 10 of the contract data</p> <p>Note 4 on page 10 of the contract data which relates to any benefit or right in favour of any subcontractor shall be deemed to be deleted</p> <p>F:..... V:..... T:.....</p> <p><u>SECTION B: PRELIMINARIES</u></p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Preliminaries and General</p>	Item	ZAR	

Item No		Quantity	Rate	Amount
	<u>Interpretation (B1)</u>			
33	Clause 1.1 - Definitions F:..... V:..... T:.....	Item		
34	Clause 1.2 - Interpretation F:..... V:..... T:.....	Item		
	<u>Documents (B2)</u>			
35	Clause 2.1 - Checking of documents F:..... V:..... T:.....	Item		
36	Clause 2.2 - Provisional bills of quantities Multiple procurement These bills of quantities are in multiple procurement format ie the "wet trades" - earthworks, concrete, formwork and reinforcement, precast concrete, masonry, waterproofing and sub-surface drainage - are provisionally measured and the subsequent trades are budgetary allowances and/or provisional sums F:..... V:..... T:.....	Item		
37	Clause 2.3 - Availability of construction information Budgetary allowances and provisional sums The budgetary allowances and/or provisional sums allocated for subsequent trades included in this agreement will be separately procured, based on multiple procurement of subcontractors during the construction period F:..... V:..... T:.....	Item		
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Item No		Quantity	Rate	Amount
38	Clause 2.4 - Ordering of materials and goods F:..... V:..... T:.....	Item		
	Previous work and adjoining properties (B3)			
39	Clause 3.1 - Previous work - dimensional accuracy F:..... V:..... T:.....	Item		
40	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item		
41	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item		
	The site (B4)			
42	Clause 4.1 - Defined works area F:..... V:..... T:.....	Item		
43	Clause 4.2 - Handover of site in stages F:..... V:..... T:.....	Item		
44	Clause 4.3 - Enclosure of the works F:..... V:..... T:.....	Item		
45	Clause 4.4 - Geotechnical investigation F:..... V:..... T:.....	Item		
46	Clause 4.5 - Encroachments F:..... V:..... T:.....	Item		
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Item No		Quantity	Rate	Amount
47	Clause 4.6 - Existing premises occupied F:..... V:..... T:.....	Item		
48	Clause 4.7 - Services - known F:..... V:..... T:.....	Item		
49	Clause 4.8 - Protection of trees and/or relevant natural features F:..... V:..... T:.....	Item		
<u>Management of contract (B5)</u>				
50	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item		
51	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item		
52	Clause 5.3 - Technical meetings F:..... V:..... T:.....	Item		
<u>Samples, shop drawings and manufacturer's instructions (B6)</u>				
53	Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item		
54	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item		
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Item No		Quantity	Rate	Amount
55	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item		
56	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item		
	<u>Deposits and fees (B7)</u>			
57	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item		
	<u>Temporary services (B8)</u>			
58	Clause 8.1 - Water F:..... V:..... T:.....	Item		
59	Clause 8.2 - Electricity F:..... V:..... T:.....	Item		
60	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item		
61	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item		
	<u>Prime cost amounts (B9)</u>			
62	Clause 9.1 - Responsibility for prime cost amounts			
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Item No		Quantity	Rate	Amount
	<u>Attendance on subcontractors (B10)</u>			
63	Clause 10.1 - General attendance F:..... V:..... T:.....	Item		
64	Clause 10.2 - Special attendance F:..... V:..... T:.....	Item		
	<u>General (B11)</u>			
65	Clause 11.1 - Protection of the works F:..... V:..... T:.....	Item		
66	Clause 11.2 - Protection/isolation of existing/sectionally occupied works F:..... V:..... T:.....	Item		
67	Clause 11.3 - Security of the works F:..... V:..... T:.....	Item		
68	Clause 11.4 - Notice before covering work F:..... V:..... T:.....	Item		
69	Clause 11.5 - Disturbance F:..... V:..... T:.....	Item		
	Clause 11.6 - Environmental disturbance F:..... V:..... T:.....	Item		
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Item No		Quantity	Rate	Amount
70	Clause 11.7 - Works cleaning and clearing F:..... V:..... T:.....	Item		
71	Clause 11.8 - Vermin F:..... V:..... T:.....	Item		
72	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item		
73	Clause 11.10 - Tenant installations by direct contractors F:..... V:..... T:.....	Item		
74	Clause 11.11 - Advertising F:..... V:..... T:.....	Item		
<u>Preliminaries schedule (B12)</u>				
75	Information for completion of the preliminaries schedule Information necessary for elections and completion of those clauses contained in the preliminaries schedule which are necessary for tender purposes is given hereunder. Where no information is given it shall mean that no specific requirements are expected or that the clause is not relevant to this specific contract 12.1 - Provisional bills of quantities [2.2] The quantities are provisional Yes 12.2 - Availability of construction information [2.3] Construction documentation is complete Yes 12.3 - Previous work - dimensional accuracy [3.1] 12.4 - Previous work - defects [3.2]			
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Item No		Quantity	Rate	Amount
	12.5 - Inspection of adjoining properties [3.3]			
	12.6 - Defined works area [4.1]			
	12.7 - Handover of site in stages [4.2]			
	12.8 - Enclosure of the works [4.3]			
	12.9 - Geotechnical investigation [4.4]			
	Refer to Annexure 14 for the results of a geotechnical investigation report			
	12.10 - Existing premises occupied [4.6]			
	12.11 - Services - known [4.7]			
	12.12 - Protection of trees and/or relevant natural features [4.8]			
	12.13 - Water [8.1]			
	Option A (by contractor) Yes			
	Option B (by employer - free of charge) No			
	Option C (by employer - metered) No			
	12.14 - Electricity [8.2]			
	Option A (by contractor) Yes			
	Option B (by employer - free of charge) No			
	Option C (by employer - metered) No			
	12.15 - Ablution and welfare facilities [8.3]			
	Option A (by contractor) Yes			
	Option B (by employer) No			
	12.16 - Communication facilities [8.4]			
	12.17 - Protection of the works [11.1]			
	12.18 - Protection/isolation of existing/sectionally occupied works [11.2]			
	Protection/isolation is required Yes			
	12.19 - Disturbance [11.5]			
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Item No		Quantity	Rate	Amount
	<p>All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever</p> <p>12.20 - Environmental disturbance [11.6]</p> <p>Controlling all forms of pollution</p> <p>The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due <i>inter alia</i> to noise, artificial light, wind-blown sand, dust, deposits of mud, etc</p> <p>The contractor is to ensure that all roads which border the site and is used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works</p> <p>Environmental management plan</p> <p>The employer has prepared an environmental management plan (EMP) (refer to Annexure 15 for a copy of the relevant plan). The contractor shall price opposite this item for compliance with all the requirements of such EMP</p> <p>F:..... V:..... T:.....</p> <p><u>SECTION C: SPECIFIC PRELIMINARIES</u></p>			
76	<p>Warranties for materials and workmanship</p> <p>Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or doing the work and shall deliver same to the principal agent on the final completion of the contract</p>			
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Item No		Quantity	Rate	Amount
79	<p>Overloading</p> <p>The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense</p> <p>F:..... V:..... T:.....</p>	Item		
80	<p>Propping of floors below</p> <p>The contractor is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor</p> <p>F:..... V:..... T:.....</p>	Item		
81	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least forty (40) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:..... T:.....</p>	Item		
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Item No		Quantity	Rate	Amount
82	<p>Green star building certification</p> <p>F:..... V:..... T:.....</p>	Item		
83	<p>Broad based black economic empowerment (BBBEE)</p> <p>Tenders submitted will be evaluated taking into account their empowerment rating</p> <p>The employer will be monitoring the broad based black economic empowerment (BBBEE) status of the contractor throughout the execution of the works</p> <p>The contractor is to submit to the principal agent on an annual basis a schedule of spend, split into vendors engaged as subcontractors and suppliers indicating their BBBEE rating including proof of the said rating</p> <p>F:..... V:..... T:.....</p>	Item		
84	<p>Advertising rights</p> <p>The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. Position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting the obligations under this agreement</p> <p>F:..... V:..... T:.....</p>	Item		
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Item No		Quantity	Rate	Amount
85	<p>Confidentiality</p> <p>The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works</p> <p>No information regarding this project shall be published or disclosed without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p>	Item		
86	<p>Media releases</p> <p>All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer</p> <p>The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media</p> <p>F:..... V:..... T:.....</p>	Item		
<u>SUMMARY OF CATEGORIES</u>				
Category : Fixed R.....				
Category : Value R.....				
Category : Time R.....				
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	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 1</u></p> <p><u>ALTERATIONS</u></p> <p><u>ALTERATIONS TO EXISTING WORKS</u></p> <p><u>CPAP WORK GROUP NO. 102</u></p> <p>HAYLETT FORMULA WORK GROUP NO.102 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 102 for Haylett Formula purposes</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>View Site</u></p> <p>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 of the work or of inferior or damaged materials will be entertained</p> <p><u>Explosives</u></p> <p>No explosives whatsoever may be used for demolition purposes unless otherwise stated</p> <p><u>General</u></p> <p>The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum 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 project manager.</p> <p>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 project manager</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 2 Alterations</p>			
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Item No		Quantity	Rate	Amount
	<p>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</p> <p>Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc</p> <p>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</p> <p>With regard to building up openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising brickwork</p> <p>Making good finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary</p> <p>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)</p> <p><u>DEMOLITION WORK (PROVISIONAL)</u></p> <p><u>ASBESTOS REQUIREMENTS AND METHODOLOGY</u></p> <p>Scope of Work - demolitions, removal of asbestos ceilings and prepare for new</p> <p>Waste stream - asbestos material found in asbestos ceilings</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 2 Alterations</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p>As per Asbestos Regulations 2001 Guide, Chief Directorate: Occupational Health and Safety - Department of Labour complying to all the necessary regulations 1 - 22. An Asbestos removal methodology is to be approved by the relevant Occupational Health and Safety and the Principal Agent in conjunction with the Asbestos Regulations and the Occupational Health and Safety Act of 1993.</p> <p>It is a requirement for the Asbestos Regulations of 2001, should be taken into consideration and incorporated in the removal of asbestos material</p> <p><u>TEMPORARY BARRIERS, SCREENS, ETC</u></p> <p>Temporary barriers, screens, etc including removal</p> <p>1 Dust screen and Hoarding 2.0 m high from ground, formed of polypropolyne UV shade mesh stabilised with 50mm diameter timber posts suitably anchored in earth , including corners, ends, etc or similar approved to the satisfactory of the Occupational Health and Safety and the Principal Agent m 455</p> <p><u>REMOVAL OF EXISTING WORK - MAIN TAXI RANK</u></p> <p><u>Demolitions</u></p> <p>NOTE:</p> <p>Unless otherwise stated, all usable material from the demolitions should be kept safely and handed over to the authorised client's representative or the project manager, who shall sign for all the material received. The builder should allow for the removal of all debris from site at all times and keeping the site clean at all times</p> <p><u>Breaking down and removing existing work,</u></p> <p>2 Remove existing roof to a single storey ablution building with double pitched roof, 18.7 x 5m on plan and 3m high at eaves, suspended 2650mm from the ground, prefabricated walls, including ceilings, corrugated iron roof covering on and including timber rafters, purlins, etc, complete m2 94</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 2 Alterations</p>		ZAR	

Item No		Quantity	Rate	Amount
3	Carefully remove existing taxi platform shades (to be re-installed elsewhere) with mono pitched roof, 12 x 2m on plan and 3m high at eaves, including steel columns, corrugated iron roof covering on steel rafters	m2	576	
4	Breakdown existing perimeter wall	m2	700	
5	Breakdown existing asphalt, paving, kerbs, etc on driving and parking areas to a depth of not exceeding 150mm	m2	9 709	
6	Demolish, take out and remove existing surface bed slab, 100mm thick	m3		Rate Only
	<u>Carting away building rubble form Demolitions</u>			
7	Carting away for materials from demolitions to a nearest dumping site not exceeding 6km away as approved.	m3	2 152	
	<u>Existing Services</u>			
8	Allow an amount for disconnection of services: Water and electricity	Item		
	<u>DECANTING - ABSA PLAIN</u>			
	<u>MAKING GOOD OF FINISHES, ETC</u>			
	<u>Making good existing surfaces in asphalt</u>			
9	Prepare by cutting, cleaning, compacting and cold fill potholes with asphalt stone aggregate material and compact as per Engineers instruction	m3	538	
	<u>Re-installation of taxi shades</u>			
10	Load, transport and re-assemble existing taxi platform shades with mono pitched roof, 12 x 2m on plan and 3m high at eaves, including steel columns, corrugated iron roof covering on steel rafters, columns to be fixed on asphalt finished surface including supply of 1m long holding down bolts (approx 192no), drilling, supply and weld of 8mm thick base plates to columns	m2	384	
	Carried to Collection			
	Bill No. 2 Alterations		ZAR	

Item No		Quantity	Rate	Amount
	<u>Making good internal cement plaster</u>			
11	Repair all Cracks and plastering, with chicken mesh as per Engineers method.	m2	19	
12	Provision for replacing of all plumbing sanitary and install new	Item		
	<u>Making good existing works</u>			
13	Remove damaged existing timber doors	No	10	
14	Install 40mm Thick hardwood timber doors suitable for external use including two-coat vanish paint and 2 lever lock set	No	2	
15	Install 44mm Thick flush panel door consisting of veneer hollow core panels and two concealed edges, size 813 x 2061mm high including WC indicator bolt	No	8	
	<u>Prepare and prime with Plaster Primer and apply two finishing coat matt finish paint</u>			
16	On internal walls	m2	94	
	<u>TEMPORARY STRUCTURES</u>			
	<u>Source for Monthly rental, pre-fabricated temporary Ablutions and Offices, to be transported, assembled and connected in designated areas on site. Cost to include, all necessary deposit, on-site connection and disconnection upon de-establishment</u>			
17	Rent 1 x no. Parkhome Ablution unit with two compartments for Male: comprising 2 x no. WC; 1 x no. Urinal; 2 x no. HWB, and Female: comprising 2 x no. WC and 2 x no. HWB with each overall size of 5.82 x 2.99m including lighting, etc. as per Speed space supply specifications or equally approved	No	24	
18	Rent 1 x no. Parkhome Office unit with an overall size of 5.82 x 2.99m including lighting, AC, DB, etc. as per Speed space supply specifications or equally approved	No	24	
	Carried to Collection			
	Bill No. 2 Alterations		ZAR	

Bill No. 2

Alterations

Bill No. 2

Alterations

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Bill No. 2
Alterations

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO.2</u></p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p> <p><u>CPAP WORK GROUP NO. 104</u></p> <p>HAYLETT FORMULA WORK GROUP NO.104 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 104 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and methods to be used - PW371"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of ground</u></p> <p><i>Classification of excavated material</i></p> <p>A soils investigation has been carried out on site by the Principal Agent and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured</p> <p><u>Filling (General)</u></p> <p>It will be, at all times, required from the Contractor to apply and execute strict quality control on all filling material used</p> <p>All filling obtained from a commercial source should comply to minimum G6 standard</p> <p>Samples of potential fill material obtained from excavations, trench excavations, etc. are to be submitted to and approved by the Principal Agent prior the re-use thereof as "filling"</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 3 Foundation</p>			
			ZAR	

Item No		Quantity	Rate	Amount
	<p>Should any material be found unsuitable and the use thereof be disapproved, such material shall be disposed and approved material must be sourced and imported from an approved commercial source</p> <p>Filling in general shall be compacted to the prescribed percentage Mod AASHTO density</p> <p>Backfilling described as:</p> <ul style="list-style-type: none"> - "filling in pipe trenches, etc.", all backfilling shall be done with approved backfilling compacted to 93% Mod. AASHTO density, unless otherwise described - "filling behind retaining walls, etc.", all backfilling shall be done with approved backfilling compacted to 93% Mod. AASHTO density, unless otherwise described <p><u>Filling in sub-layers, under floors, etc</u></p> <p>All filling in layers under surface beds, in sub-layers, to form earth mattresses, etc. shall be done with materials specified and according to methods prescribed by the SABS 1200ME Sub-base Specification</p> <p>The aforesaid specification was drawn up to cover activities normally encountered on civil engineering work, which is equally applicable on the filling details and requirements prescribed for this project</p> <p>The said specification, although not issued with, shall be regarded to form part of these Bills of Quantities. The Contractor shall obtain a copy of the said specification from the South African Bureau of Standards and be kept on site at all times</p> <p><u>CBR and indicator tests</u></p> <p>Density tests for monitoring filling shall be done at the minimum prescribed frequencies per each 150mm thick layer of filling placed</p> <p>The Contractor is to note that all necessary tests (i.e. CBR and indicator tests, etc.) are to be conducted for all filling material, whether obtained from the excavations or to be imported from an approved commercial source</p>			
Bill No. 3 Foundation	Carried to Collection		ZAR	

Item No		Quantity	Rate	Amount
	<p>Results of these tests are to be submitted to and approved by the Principal Agent prior commencement of any placement thereof and/or filling done therewith</p> <p><u>Density tests</u></p> <p>It will be required from the Contractor to execute density tests for monitoring filling at the following minimum frequencies per each filling layer placed:</p> <ul style="list-style-type: none"> - Filling under surface beds, aprons, channels, etc: 1 Test per 125m² plan area per each 150mm thick layer - Filling behind retaining walls: 1 Test per each 150mm thick layer per each 15m length of retaining wall <p>Results of density tests executed are to be submitted to and approval obtained from the Principal Agent prior commencement of any subsequent fill layers and/or other work</p> <p>A separate item has been measured for density tests in this Bill</p> <p>No additional claims in this regard will afterwards be entertained</p> <p><u>Carting away of excessive and/or unsuitable excavated material</u></p> <p>Descriptions for "carting away excessive or unsuitable excavated material from site" shall, unless specifically otherwise described, be deemed to include the loading and hauling of excessive or unsuitable excavated material to a suitable dumping site, which has to be located by the Contractor, off the construction site</p> <p>The location of the intended dumping site will be subjected to the prior written approval of the Principal Agent</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 3 Foundation</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p>The Contractor will also be liable to, upon completion, rehabilitate all those areas of the dumping site used for dumping/spoiling by grading the area to follow the adjacent ground contours and afterwards compacted to 80% Mod. AASHTO density, all to the full satisfaction of the Principal Agent</p> <p>Tendered rates must make provision for the above-mentioned as no additional claims in this regard will afterwards be entertained</p> <p><u>Measurement and payment</u></p> <p>Measurement and payment clauses as described in the above-mentioned specification, Standardized Specification for Civil Engineering Construction, shall not apply to the work as set out in this Bill</p> <p><u>Mixing of concrete</u></p> <p>No hand mixing of concrete will be allowed on site</p> <p><u>Supplementary preambles and full descriptions of materials, items, work, etc.</u></p> <p>The Contractor is referred to the next Bill No 3, Concrete, Formwork and Reinforcement, and Bill No 4, Masonry, for supplementary preambles and full descriptions of materials, items, work, etc. which shall be regarded to be equally applicable for work described in this Bill, unless specifically otherwise described</p> <p><u>SITE CLEARANCE</u></p> <p><u>Excavations</u></p> <p><u>Note:</u></p> <p>The builder should allow for the removal of all debris from site at all times and keeping the site clean at all times.</p> <p>Excavation in foundations shall include ripping 200mm under foundations, pre-wetting and re-compaction as per Engineers details</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 3 Foundation</p>		ZAR	

Item No		Quantity	Rate	Amount
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc.	m2		Rate Only
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2		Rate Only
<u>EXCAVATION, FILLING, ETC</u>				
<u>Excavation in earth or compacted platforms not exceeding 2m deep</u>				
3	Raft trenches	m3	1 578	
4	Ground beam	m3	108	
<u>Excavation in earth or compacted platforms exceeding 2 but not exceeding 4m deep</u>				
5	Lift Shaft	m3	24	
<u>Extra over trench and hole excavations in earth for excavation:</u>				
6	Soft rock	m3	168	
7	Hard rock	m3	85	
<u>Extra over all excavations for carting away</u>				
8	Surplus material from excavations and/or stock piles on site to a nearest dumping site not exceeding 6km away from building site.	m3	1 324	
<u>Risk of collapse of excavations</u>				
9	Sides of trench and hole excavations not exceeding 1,5m deep	m2	2 062	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density</u>				
10	Over sides of excavations to make up levels	m3	368	
Carried to Collection			ZAR	
Bill No. 3 Foundation				

Item No		Quantity	Rate	Amount
	<u>Earth filling G7 Quality supplied by the contractor in 150mm thick layers compacted to 93% Mod. AASHTO density</u>			
11	Walkway areas, etc	m3	820	
	<u>Earth filling G5 Quality supplied by the contractor in 150mm thick layers compacted to 93% Mod. AASHTO density</u>			
12	Under road areas, etc	m3	1 240	
	<u>Earth filling G3 Quality supplied by the contractor in 150mm thick layers compacted to 93% Mod. AASHTO density</u>			
13	Under road areas, etc	m3	1 240	
	<u>Keeping excavations free of water</u>			
14	Keeping excavations free of water	Item		
	<u>Prescribed density tests on filling</u>			
15	"Modified AASHTO Density" test	No	18	
	<u>Compaction of surfaces</u>			
16	Compaction of ground surface under foundations etc including scarifying for a depth of 200mm, breaking down oversize material, adding suitable material where necessary, pre-wetting and compacting to 93% Mod AASHTO density	m2	1 435	
17	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	10	
18	Compaction of ground surface under road and side walk areas etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary, pre-wetting and compacting to 93% Mod AASHTO density	m2	8 264	
Carried to Collection			ZAR	
Bill No. 3 Foundation				

Item No		Quantity	Rate	Amount
	<u>SOIL POISONING</u> All soil poisoning and insecticide to be applied under a <i>five year</i> guarantee by an approved firm of Specialists. Soil insecticides shall comply with <i>SABS Specification 1165</i> . Work shall be carried out in accordance with "The application of soil insecticides for the protection of buildings" - <i>SABS Code of Practice 0124</i> Casting of concrete floors to start within 24 hours after the application of soil poisoning <i>Pest control applicators must provide :</i> 1. Proof of pesticides and insecticides (data sheets) 2. Toxicants must be registered with the Departement of Agriculture 2. Proof that they are qualified to perform the work 3. Five year guarantee certificate <u>Soil poisoning and insecticide</u>			
19	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	8 264	
20	To bottoms and sides of trenches, etc	m2	3 488	
Carried to Collection			ZAR	
Bill No. 3 Foundation				

Bill No. 3

Foundation

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Bill No. 3
Foundation

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO.3</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>CPAP WORK GROUP NO. 110</u></p> <p>HAYLETT FORMULA WORK GROUP NO.110 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 110 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and methods to be used - PW371"</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete building or installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Mixing of concrete</u></p> <p>No hand mixing of concrete will be allowed on site</p> <p><u>Concrete test cubes</u></p> <p>Descriptions and tendered rates for concrete strength test cubes, as required under clause 7, "Tests" of SANS 1200 G, shall be deemed to cater for all the costs of providing cube moulds necessary for the purpose, making, storing and sending thereof to an approved accredited laboratory for testing, paying all charges in connection therewith and for submitting test result reports to Principal Agent</p> <p>All concrete strength test cubes, each size 150 x 150 x 150mm, shall be prepared in a set of three</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 4 Concrete, Reinforcement and Formwork</p>			
			ZAR	

Item No		Quantity	Rate	Amount
	<p>It will be required from the Contractor to prepare concrete strength test cube sets for each building at the following minimum frequencies:</p> <ul style="list-style-type: none"> - One set of three cubes for every 15m³, or part thereof, of concrete cast per day, or: - One set of three cubes for each batch of concrete cast per event <p>All concrete strength test cubes shall be labelled and the identity thereof (ie. date, concrete strength type, position where batch was cast relative to the building and building identity) shall be properly recoded for future reference</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p> <p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself</p> <p>Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the Principal Agent for design reasons. Formwork necessitated by irregularities or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision which is made for in "Foundations"</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>20MPa/19mm concrete</u></p> <p>Surface blinding under footings and bases m3 85</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 4 Concrete, Reinforcement and Formwork</p>			
			ZAR	

Item No		Quantity	Rate	Amount
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>30MPa/19mm concrete</u>			
1	Bases m3	1 079		
2	Ground beam m3	162		
3	Raft slabs cast on waterproofing m3	366		
	<u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u>			
	<u>30MPa/19mm concrete</u>			
4	Plinths m3	3		
5	Raised floor slabs m3	125		
6	Bond deck slabs m3	728		
7	Raking Bond deck slab/ Ramps m3	90		
8	Stairs including landings, beams and inverted beams m3	11		
9	Suspended slabs m3	167		
10	Columns m3	147		
11	Walls m3	40		
12	Ring beam m3	22		
13	Raking beams including and inverted beams m3	83		
14	Upstand beams m3	159		
	<u>TEST CUBES</u>			
15	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith (one block to be tested after 7 days) (Provisional) Sets	271		
	<u>CONCRETE SUNDRIES</u>			
	Carried to Collection		ZAR	
	Bill No. 4 Concrete, Reinforcement and Formwork			

Item No		Quantity	Rate	Amount
	<u>Finish top surfaces of concrete smooth with a wood float</u>			
16	Surface beds, slabs, etc to falls m2	7 773		
	<u>Finish top surfaces of concrete smooth with a power float</u>			
17	Surface beds, slabs, etc to falls m2	752		
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>			
	<u>Smooth formwork to soffits</u>			
18	Slabs not exceeding 250mm thick propped up not exceeding 1,5m high m2	187		
19	Slabs not exceeding 250mm thick propped up not exceeding 3,5m high m2	567		
20	Slabs over shafts m2	10		
	<u>Smooth formwork to sides</u>			
21	Sides of rectangular stub columns with total height not exceeding 3.5m above bearing level m2	31		
22	Rectangular Columns m2	1 405		
23	Round columns 200mm diameter 6m high No	14		
24	Round columns 300mm diameter 6m high No	2		
25	Sides of inverted beams above concrete m2	1 378		
26	Sides and soffits of sloping inverted beams propped up not exceeding 3.5m high m2	237		
	<u>Sliding/climbing rough formwork to sides</u>			
27	Shaft walls (shaft approximately 3.18m x 2.68m internally and total wall height not exceeding 13m m2	305		
	<u>Boxing in smooth formwork to form</u>			
28	25 x 25mm Chamfers horizontally and vertically along top or side edges of columns, upstand beams, etc m	3 312		
	Carried to Collection		ZAR	
	Bill No. 4 Concrete, Reinforcement and Formwork			

Item No		Quantity	Rate	Amount
	<u>Smooth formwork to sides</u>			
29	Edges of surface beds not exceeding 300mm high or wide	m	575	
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>			
	<u>Permanent formwork</u>			
	<u>1,2mm Thick galvanised steel permanent decking system to soffits</u>			
30	<u>Soffits of bond deck slabs fixed to steel bearers, including cutting and fitting around shear studs</u>	m2	5 201	
31	<u>Raking soffits of bond deck slabs fixed to steel bearers, including cutting and fitting around shear studs</u>	m2	641	
	<u>REINFORCEMENT (PROVISIONAL)</u>			
	<u>CPAP WORK GROUP NO. 114</u>			
	HAYLETT FORMULA WORK GROUP NO.114 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 114 for Haylett Formula purposes			
	<u>High tensile steel reinforcement to structural concrete work</u>			
32	Various Diameter bars	t	178.14	
	<u>Mesh reinforcement</u>			
33	Ref 245 Mesh steel fabric reinforcement laid in concrete surface beds minimum 150mm along edges and ends (Measured net)	m2	5 984	
	Carried to Collection			
	Bill No. 4 Concrete, Reinforcement and Formwork		ZAR	

Bill No. 4

Concrete, Reinforcement and Formwork

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Bill No. 4

Concrete, Reinforcement and Formwork

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO. 4</u></p> <p><u>MASONRY</u></p> <p><u>CPAP WORK GROUP NO. 118</u></p> <p>HAYLETT FORMULA WORK GROUP NO.118 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 118 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and methods to be used - PW371"</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the building or installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one-brick" shall represent the length and "half-brick" the width of a brick</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.</p> <p><u>SUPERSTRUCTURE</u></p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 5 Masonry</p>		ZAR	

Item No		Quantity	Rate	Amount
	<u>Brickwork of NFP bricks in class II mortar</u>			
1	Half brick walls m2	30		
2	One brick walls m2	449		
3	One and half brick walls m2	332		
4	345mm thick composite wall with concrete infill, mesh and wire ties m2	163		
5	460mm thick brick walls m2	355		
6	Half brick walls in beamfilling m2			Rate Only
	<u>FACE BRICKWORK</u>			
	<u>Face Bricks (PC Amount R 10,200.00 per thousand) bricks delivered to site excl. VAT) pointed with square recessed horizontal and vertical joints</u>			
	<u>"Silver Grey Travertine " face bricks pointed with recessed horizontal and vertical joints</u>			
7	Extra over brickwork for face brickwork m2	850		
8	Half brick walls pointed on both sides m2	172		
9	One brick walls pointed on both sides m2	424		
10	460mm thick brick walls pointed on both sides m2	94		
	<u>Brick-on-edge header course copings, sills, etc of "Silver Grey Travertine" face bricks pointed with recessed joints on all exposed faces</u>			
11	Brickwork for brick-on-edge header course lintel m			Rate Only
12	Coping on top of one brick wall m			Rate Only
	<u>BRICKWORK SUNDRIES</u>			
	<u>Brickwork reinforcement</u>			
13	75mm Wide reinforcement built in horizontally m	391		
14	150mm Wide reinforcement built in horizontally m	4 786		
	Carried to Collection		ZAR	
	Bill No. 5 Masonry			

Item No		Quantity	Rate	Amount
	<u>"Fabcon" prestressed fabricated lintels</u>			
15	110 x 75mm Lintels in lengths not exceeding 3m m	40		
	<u>Turning pieces</u>			
16	230mm Wide turning piece to lintels etc m	40		
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Bill No. 5 Masonry				

Bill No. 5

Masonry

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Bill No. 5
Masonry

Item No		Quantity	Rate	Amount
	<u>Composite four coat 'Mastertop 1332' UV polyurethane waterproofing system comprising of 'Mastertop Primer2' base coat, 'Mastertop Membrane23' intermediate coat and two coats of 'MastertopTC458' top coat, to exposed reinforced concrete slabs, including all surface preparation, vacuum blasting to ensure surface is latent free and an adhesion promoting surface penetrating epoxy primer, all to the architects and the manufacturers specifications applied to:</u> <u>Supply and Install Pro-Struct 300 Water Repellant to:</u>			
3	Roofs	m2		Rate Only
4	Ramps	m2		Rate Only
Carried to Collection			ZAR	
Bill No. 6 Waterproofing				

Bill No. 6

Waterproofing

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Bill No. 6
Waterproofing

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO.6</u></p> <p><u>ROOF COVERINGS ETC</u></p> <p><u>CPAP WORK GROUP NO. 124</u></p> <p>HAYLETT FORMULA WORK GROUP NO.124 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and methods to be used - PW 371"</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>All roof coverings, etc, to be with a covering of Z275 galvanising</p> <p>The roof coverings shall be roll-formed in continuous lengths from certified steel complying with ASTM 446 Grade E (3t) and shall carry Agreement Certification</p> <p>All holes to be drilled and not punched</p> <p>Where described as with "Globalcoat" finish, all sheets, flashings, etc., shall be with "Globalcoat" silicone polyester paint for exterior use</p> <p><u>Sizes</u></p> <p>All items are measured net unless otherwise described</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 7 Roof Covering, ETC</p>			
			ZAR	

Item No		Quantity	Rate	Amount
	<p><u>Flashings, trimming plates, etc</u></p> <p>Prices to include for all cutting and waste and relevant fixing material, unless otherwise described</p> <p>All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable</p> <p>All items are unless otherwise described measured net</p> <p><u>PROFILED METAL SHEETING AND ACCESSORIES</u></p> <p><u>NOTE:</u></p> <p>A written guarantee stating that the roofs including the flashings, are guaranteed to be waterproof for a period of 12 months must be submitted and handed over to the Principal Agent</p> <p><u>0.50mm thick Chromadeck zinc roof sheeting fixed to steel internal purlins at 1900mm centres and ridge/eve purlins at 1700mm centres using 700 clips fastened to timber purlins with approved Safintra fasteners,hurricane clips etc.</u></p>			
1	<p>Roof covering with pitch not exceeding 25 degrees fixed to steel purlins</p>	m2	2 037	
	<p><u>ROOF AND WALL INSULATION</u></p> <p><u>"Alububble" industrial grade insulation</u></p>			
2	<p>4mm Alububble laid taut over purlins and fixed concurrently with roof covering, including white PVC coated straining wires at 383mm centres, all in accordance to the manufacturer's specifications.</p>	m2	2 037	
	<p>Carried to Collection</p>			
	<p>Bill No. 7 Roof Covering, ETC</p>		ZAR	

Bill No. 7

Roof Covering, ETC

COLLECTION

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Amount

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ZAR

Bill No. 7
Roof Covering, ETC

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO.7</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>CPAP WORK GROUP NO. 126</u></p> <p>HAYLETT FORMULA WORK GROUP NO.126 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 126 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and methods to be used - PW 371"</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Pre-fabricated metal connected timber roof trusses</u></p> <p>All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction</p> <p><u>Timber</u></p> <p>Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SANS Specification No 563 or as defined in SANS Specification No 1460</p> <p><u>Bolts</u></p> <p>Bolts shall be in accordance with BS 4190 or SANS 135</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 8 Carpentry and Joinery</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p><u>Shear plates, tooth connectors and split rings</u></p> <p>Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"</p> <p><u>Washers</u></p> <p>Square or round washers of the following dimensions shall be used with all bolts:</p> <p>1 Bolts up to 8mm diameter: Washers shall be minimum 25mm wide of minimum 2,50mm thickness</p> <p>2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness</p> <p>3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness</p> <p><u>Metal connector plates</u></p> <p>Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel</p> <p>The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m2 commercial class hot dipped galvanising as per SANS 934 before stamping</p> <p>All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report</p> <p><u>Truss construction</u></p> <p>Trusses shall be constructed in jigs specially designed to ensure the correct profile, overhangs and cambers</p> <p>Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 8 Carpentry and Joinery</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p><u>Truss design</u></p> <p>All trusses shall be designed by a registered Professional Engineer in accordance with SANS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")</p> <p>The truss centres shall be less than or equal to that as described in this bill for each respective truss</p> <p><u>Truss spacing</u></p> <p><u>Truss pitch</u></p> <p>The truss pitch shall be as described in this bill for each respective truss type</p> <p><u>Truss loading</u></p> <p>Trusses shall be designed for a live load of 0,50kN/m² and dead load as specified under the sub-heading "Specific load specifications for roof trusses"</p> <p><u>Shop drawings, design and erection guarantee certificates</u></p> <p>It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Principal Agent in respect of the required shop drawings, design and erection guarantee certificates as specified</p> <p><u>Dimensions</u></p> <p>All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences</p> <p><u>Erection</u></p> <p>All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 8 Carpentry and Joinery</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p><u>Design system</u></p> <p>The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system</p> <p>However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Principal Agent</p> <p><u>Specific specifications for roof trusses</u></p> <p>Unless otherwise described, the following specifications will apply:</p> <p>1 All trusses to be with a 17° pitch at approximately 1000mm centres</p> <p>2 The dead load consists of 0,6mm "Corrugated Iron Roof Truss" heavy industrial galvanised finish, 50 x 76mm purlins at approximately 1150mm centres, 6mm fibre-cement nailed-up ceilings on 50 x 38mm brandering at 400mm centres and 50mm glass fibre insulation blanket laid on top of ceilings</p> <p><u>Rates</u></p> <p>Tendered rates to include for the complete roof construction, including the design of the roof construction, all timber of required grade and type shown on the design, all cutting and waste, cutting to the exact lengths and end angles to manufacture the respective truss type, supply of all connector plates, fabrication of trusses, checking the completed truss for quality, loading up, transporting to the site of the works and off loading, storing under cover and protecting from the weather, hoisting up in position and erection of the roof truss structure, necessary supervision, submission of all shop drawings, design and erection guarantee certificates, etc. as specified</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 8 Carpentry and Joinery</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p><u>Particle board</u></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SANS 1300 Particle board: exterior and flooring type</p> <p>b) SANS 1301 Particle board: interior type</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p>Items described as with "Formica" on one side shall include a "CPL" treated brown backer on other side and "Vaposeal" sealer. All cut edges and exposed particle board to be sealed with one coat acrylic sealer and then with allche</p> <p><u>DOORS, ETC</u></p> <p><u>Hardwood doors</u></p>			
1	<p>40mm Thick, framed, ledged and braced door, formed of 40 x 110mm hardwood styles and top rail, 40 x 150mm lock rail and 40 x 220mm bottom rail, 18mm x 110mm braces, the styles and top rail grooved for and filled in with 22 x 70mm tongued, grooved and V-jointed vertical boarding size 813 x 2032mm high.</p>	No	19	
	<p>Carried to Collection</p>			
	<p>Bill No. 8 Carpentry and Joinery</p>		ZAR	

Item No		Quantity	Rate	Amount
2	40mm Thick double door, framed, ledged and braced door, formed of 40 x 110mm hardwood styles and top rail, 40 x 150mm lock rail and 40 x 220mm bottom rail, 18mm x 110mm braces, the styles and top rail grooved for and filled in with 22 x 70mm tongued, grooved and V-jointed vertical boarding size 1626 x 2032mm high.	No 1		
3	50mm Thick single panel door leaf, framed, ledged and braced door, fitted with 6mm thick clear safety glass panels, with 1 hour fire rating, including top and bottom pivot swivel pin, size 1200 x 3581mm high.	No 1		
4		No 40		
Carried to Collection			ZAR	
Bill No. 8 Carpentry and Joinery				

Bill No. 8

Carpentry and Joinery

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ZAR

Bill No. 8

Carpentry and Joinery

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO.8</u></p> <p><u>PREAMBLES</u></p> <p><u>CEILINGS, ETC.</u></p> <p><u>CPAP WORK GROUP NO. 129</u></p> <p>HAYLETT FORMULA WORK GROUP NO.129 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for Haylett Formula purposes</p> <p>For preambles see " Specification of materials and methods to be used - PW 371"</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions:</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <p><u>CEILING CONSTRUCTION, CORNICES, ETC.</u></p> <p><u>SUSPENDED ACOUSTIC CEILING TILES</u></p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 9 Ceilings, ETC</p>		ZAR	

Item No		Quantity	Rate	Amount
1	<p><u>BPB Gypsum DonnCeill White vinyl finished gypsum ceiling tiles size 1200 x 600mm x 12,5mm thick, laminated to 55mm thick glasswool insulation, laid on and including SQ/T38 White powder coated main tees, cross tees, hold-down clips, wedges, etc., all suspended with galvanized hangers at hanger centers not exceeding 1200mm. All strictly in accordance with the manufacturer's</u></p> <p>Ceilings including 38 x 50mm brandering at maximum 400mm centres</p> <p>Cornices</p> <p><u>BPB gypsum 47 x 35mm SM25 plugged recessed shadowline cornice. Installed strictly to manufacturer's specifications against wall or plastered ceiling bulkheads to detail elsewhere.</u></p> <p>DONN SM25 shadowline recessed wall moulding cornice</p>	m2	656	
2	<p>FLUSH PLASTERED CEILINGS</p> <p><u>GYPROC RhinoCeil Prestige J flush jointed ceiling 9,5mm thick Taper-edge Rhinoboard fixed print side up and screwed to Donn T37K galvanised steel capped tee flush plastered ceiling suspension system with drywall screws spaced at 150mm centres, including galvanised main tees at 1200mm centres and cross tees at 500mm centres, all suspended with 25 x 25mm galvanised angles at not exceeding 1200mm centres, all fixed to trusses at centres as per Architect's details</u></p> <p>Suspended ceiling</p>	m	359	
3	<p><u>Everite Nutec 4mm thick plain ceiling boards, manufactured in accordance with SANS 9001:2000 carrying SANS 803:2005 mark, screw fixed to battens at 150mm centres and according to manufacturer's specifications, minimum of 12mm from edge of board. All joints to be covered using H-profile steel jointing strips, all in accordance with the manufacturer's recommendations</u></p> <p>Suspended ceiling</p>	m2	367	
4	<p>Suspended ceiling</p>	m2	150	
Carried to Collection			ZAR	
<p>Bill No. 9 Ceilings, ETC</p>				

Bill No. 9
Ceilings, ETC

Bill No. 9

Ceilings, ETC

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ZAR

Bill No. 9
Ceilings, ETC

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 2</u> <u>BILL NO. 9</u> <u>FLOOR COVERINGS, PLASTIC LININGS, ETC</u> <u>CPAP WORK GROUP NO. 130</u> HAYLETT FORMULA WORK GROUP NO.130 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 130 for Haylett Formula purposes <u>PREAMBLES</u> For preambles see " Specification of materials and methods to be used - PW 371" The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the installation. No claims from either the main contractor or subcontractor in this regard will be entertained. <u>FLOOR COVERINGS</u> <u>Supply and fit 600 x 600 carpet tiles including surface preparation, installed with pressure-sensitive adhesive, all cutting and waste, in accordance with supplier recommendations for durability</u>			
1	On floors	m2	490	
	<u>Wrought meranti</u>			
2	19 x 100mm Skirting high	m	157	
	<div>Carried to Summary</div> <div>ZAR</div>			
	Bill No. 10 Floor Coverings , Plastic Linings , ETC			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO. 10</u></p> <p><u>IRONMONGERY</u></p> <p><u>CPAP WORK GROUP NO. 132</u></p> <p>HAYLETT FORMULA WORK GROUP NO.132 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 132 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and methods to be used - PW 371"</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Finishes to ironmongery</u></p> <p>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</p> <p><u>CATCHES, CABIN HOOKS, ETC</u></p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 11 Ironmongery</p>		ZAR	

Item No		Quantity	Rate	Amount
	<u>"Halscast"</u>			
1	100mm Satin chrome "166" cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No		Rate Only
	<u>LOCKS</u>			
	<u>"EN-SUITE" LOCKS</u>			
	The following locks are to be suitable for master and grand master key operation			
	<u>Approved</u>			
2	50mm Padlock	No	7	
3	WC Indicator bolt	No	40	
4	Approved Three Lever Mortice Lockset	No	12	
	<u>"Dorma"</u>			
5	D036S SS Stainless steel cylinder sash lock	No		Rate Only
6	DDC106601 MK 66mm five pin Euro-profile double cylinder master keyed	No		Rate Only
	<u>"Union"</u>			
7	N888 Profile cylinder security gate lock with retractable latch and safety pin	No		Rate Only
	<u>HANDLES, ETC</u>			
	<u>"Dorma"</u>			
8	CB30 Cyl SC Lever handle on plate cylinder cutout	No	12	
9	CR001 Cyl Lever handle on rose with cylinder escutcheons	No		Rate Only
	<u>SUNDRIES</u>			
	Carried to Collection			
	Bill No. 11 Ironmongery		ZAR	

Item No		Quantity	Rate	Amount
10	<div>"Dorma"</div> <div>DDS-SS-017 Stainless steel floor mounted door stop</div> <div>No</div>	12		
Carried to Collection			ZAR	
Bill No. 11 Ironmongery				

[illegible]

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO. 11</u></p> <p><u>STRUCTURAL STEELEWORK</u></p> <p><u>CPAP WORK GROUP NO. 134</u></p> <p>HAYLETT FORMULA WORK GROUP NO.134 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 134 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and method to be used - PW 371"</p> <p>Descriptions</p> <p>Descriptions of bolts shall be deemed to include nuts and washers.</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete.</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>Shop drawings</u></p> <p>Tenderer shall provide full shop drawings including all sections and fixing details for approval by the Engineer to commencing work. All dimensions are to be verified on site prior to manufacture.</p> <p><u>SUPPLY, FABRICATION, AND ERECTION OF STRUCTURAL STEELWORK AS PER ENGINEER'S DRAWINGS</u></p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 12 Structural Steelwork</p>		ZAR	

Item No		Quantity	Rate	Amount
<u>GALVANISED STEEL COLUMNS AND BEAMS</u>				
<u>Columns</u>				
<u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>				
1	356 x 171mm x 45kg/m I section columns	t	2.14	
2	88.9 x 3mm x 8.38kg/m Circular Hollow Section columns	t	0.72	
3	80 x 3mm x 8.53kg/m Square Hollow Section columns	t	2.98	
<u>Beams</u>				
<u>Welded beams in single lengths with flat bearer and connection plates, bolted to steel</u>				
4	356 x 171mm x 51kg/m I-section beams in lengths not exceeding 13m	t	10.15	
5	406 x 178mm x 60kg/m I-section beams in lengths not exceeding 13m	t	113.78	
6	406 x 178mm x 74kg/m I-section beams in lengths not exceeding 13m	t	19.67	
7	457 x 191mm x 67kg/m I-section beams in lengths not exceeding 13m	t	16.12	
8	533 x 210mm x 122kg/m I-section beams in lengths not exceeding 13m	t	25.79	
<u>The following in Structural steel to roof construction</u>				
<u>Steel Trusses</u>				
<u>Welded roof trusses of circular hollow section rafters, tie beams, rails, struts, braces, cleats, etc and flat bearer, gusset and connection plates, bolted to steel</u>				
9	Monopitched trusses 88.9 x 3mm x 6.355kg/m CHS	t	1.40	
10	80 x 80 x 6mm angle Section	t	4.00	
11	Angle sag rails	t	1.17	
Carried to Collection			ZAR	
Bill No. 12 Structural Steelwork				

Item No		Quantity	Rate	Amount
	<u>Purlins</u>			
	<u>Purlins and girts, bolted to steel</u>			
12	100 x 75 x 20 x 3mm CF Lip Channel welded to 6mm plate included welded to purlins	t 8.07		
	<u>Bracing</u>			
13	60 x 60 x 6mm angle Section	t 5.44		
14	60 x 3mm Circular Hollow Section	t 2.84		
15	Sag rails	t 4.72		
	<u>Tower Structural steel work</u>			
	<u>Columns</u>			
	<u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>			
16	305 x 305mm x 97kg/m UC	t		Rate Only
	<u>Beams</u>			
	<u>Welded beams in single lengths with flat bearer and connection plates, bolted to steel</u>			
17	254 x 146mm x 31kg/m I-section beams in lengths not exceeding 13m	t		Rate Only
	<u>Bracing</u>			
18	80 x 80 x 6mm angle Section	t		Rate Only
	Carried to Collection		ZAR	
	Bill No. 12 Structural Steelwork			

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Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO. 12</u></p> <p><u>METALWORK</u></p> <p><u>CPAP WORK GROUP NO. 136</u></p> <p>HAYLETT FORMULA WORK GROUP NO.136 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 136 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and method to be used - PW 371"</p> <p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete building or installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p>			
	<p>Carried to Collection</p> <p>Bill No. 13 Metalwork</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p><u>Shop drawings</u></p> <p>Tenderer shall provide full shop drawings including all sections and fixing details for approval by the Architect prior to commencing work. All dimensions are to be verified on site prior to manufacture.</p> <p><u>Samples and mock ups</u></p> <p>Tenderer shall also include in their rates for supplying samples of finishes and sections for the Architects approval.</p> <p><u>Guarantees and warranties</u></p> <p>Tenderer shall provide a warranty that the entire installation has been carried out in accordance with the relevant SABS Standards where applicable.</p> <p>Tenderer shall provide a ASFA Certificate of Conformance in respect of product finishes such as anodising and powder coating.</p> <p><u>Finish</u></p> <p>Aluminium sections are to be powder coated aluminium in accordance with the guidelines of The Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA)</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 13 Metalwork</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p>The tenderer is to allow for any subframes required and the cost of which is to be included in that of the relevant item.</p> <p>Samples of materials and fixing methods for subframes must be submitted to the architect for approval prior to commencement of work</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Security Gates</u></p> <p>1 Security gate size 900 x 2100mm high formed of 20 x 20 x 2mm thick hollow square section for fixed frame with transom welded to sides 339mm below top section, and 20 x 12mm thick galvanised steel flats welded vertically between top section and transom at 90mm centres as per detail, and 2No 50 x 6mm galvanised steel angle iron brackets with 10mm pre-drilled holes for padlock one bracket fixed to gate and the other fixed to frame with galvanised steel lugs built into brick work, the frame fixed to walls with 3No galvanised M12 anchor bolts drilled through steel frame as per detail including gate to fit 840mm opening formed of 20 x 20 x 2mm thick galvanised hollow square sections with two intermediate sections welded to sides 168mm apart at centre, and 20 x 12mm thick galvanised steel flats welded vertically to inside frame at 90mm centres as per detail, including 110 x 150 x 2mm thick galvanised steel plate welded to frame as per detail, gate suspended and welded to frame by approved galvanised hinges</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p>	No	7	
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 13 Metalwork</p>		ZAR	

Item No		Quantity	Rate	Amount
	<u>Welded balustrading to stairs</u>			
8	Horizontal balustrading 1 000mm high formed of 75mm x 38mm x 2.5mm thick brushed stainless steel hand rail welded to 32mm x 16mm x 2.5mm thick vertical posts with and including mild steel fixing plate, 6 (no.) 16mm x 16mm x 1.6mm thick mild steel horizontal rails welded to posts at equal centres, with posts achored to concrete floor with and including 122mm x 120mm x 6mm thick mild steel fixing plate and non-shrick grout and hand rail to concrete / brickwork wall with 30mm x 30mm x 3mm thick galvanised mild steel angle with and including chrome plated dome nuts, all as per Architect's detail	m	15	
9	Raking hand rail 1 000mm high from pitch line formed of 75mm x 38mm stainless steel top hand rail with 20mm diameter mild steel round tubing, 2mm thick, bent twice to form arm welded to 70mm diameter x 2.5mm thick galvanised mild steel round plate bolted to brickwork with M8 chemical anchor bolts and chrome plated dome nuts, all as per Architect's detail	m	17	
	<u>ALUMINIUM WORK</u>			
	<u>ALUMINIUM WINDOWS, DOORS, SHOPFRONTS, LOUVRES, ETC.</u>			
	<p>Tenderers are referred to the Architect's Drawings issued with these Bills of Quantities and are to include in their prices for the fabrication, transport, installation and finishing complete of all elements, all to the satisfaction of the Architect including for samples, site measurements, preparation of surfaces, painting, etc. as required and any such items of expense necessary to complete the installation to the Architect's approval. Tenderers must satisfy themselves as to the nature and requirements of the contract. Items left unpriced will be deemed to be covered in prices against other items throughout these Bills of Quantities and no claim for any extras arising out of the Tenderer's omission to price any item or to fully understand the scope of work will be entertained.</p>			
	Carried to Collection		ZAR	
	Bill No. 13 Metalwork			

Item No		Quantity	Rate	Amount
	<p>The Tenderer is deemed to have incorporated within his rates for all necessary temporary propping, scaffolding, support, hoisting, craneage, lowering, etc. required to complete the installation. No claims from either the main contractor or subcontractor in this regard will be entertained.</p> <p><u>Glazing</u></p> <p>Glazing to windows, doors and shopfronts must be clear, obscure, solar control or clear laminated safety glass as described.</p> <p>The thickness of glass panels must meet the requirements of the National Building Regulations, AAMSA Regulations and the relevant SANS codes for glazing. If any glass types or thicknesses specified in this document do not conform with the above regulations, the tenderer is to inform the Architect of any discrepancies</p> <p><u>Supply, deliver and erect complete the following "Nuklip" purpose made natural anodised aluminium windows, including any necessary subframes, fixing in position, glass, glazing beads, polysulphide sealant, ironmongery, etc. and sealing watertight, all inclusive as per Architect's</u></p>			
10	Door size 2100mm wide x 2150mm high overall, including 6mm clear glass	No	3	
11	Door size 2870mm wide x 23150mm high overall, including 6mm Toughened Safety glass	No	3	
12	Window size 600mm wide x 900mm high overall, including 4mm obscure glass	No	11	
13	Window size 900mm wide x 2150mm high overall, including 6mm Safety glass	No	3	
14	Window size 3688mm wide x 640mm high overall, including 6mm clear glass	No	14	
15	Window size 3770mm wide x 3234mm high overall, including 6mm clear glass	No		Rate Only
Carried to Collection			ZAR	
Bill No. 13 Metalwork				

Item No		Quantity	Rate	Amount
16	Shopfront, inverted L-shaped, size 6600mm wide x 4540mm high overall, formed of multiple panels, with horizontal part overall size 6600mm wide x 1866mm high and Vertical part 2596mm x 2674mm high, including clear safety glass	No 1		
17	Window size 10118mm wide x 4250mm high overall, including 6mm clear glass	No 1		
Carried to Collection			ZAR	
Bill No. 13 Metalwork				

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO.2</u> <u>BILL NO. 13</u> <u>PLASTERING</u> <u>CPAP WORK GROUP NO. 142</u> HAYLETT FORMULA WORK GROUP NO.142 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 142 for Haylett Formula purposes <u>PREAMBLES</u> For preambles see " Specification of materials and methods to be used - PW 371" <u>SCREEDS</u> <u>Screeds steel trowelled on concrete</u> 1 25mm Thick to floors and landings m2 805 <u>GRANOLITHIC</u> <u>Untinted granolithic on concrete finish with two coats of wax polish</u> 2 25mm Thick on floors and landings m2 98 <u>INTERNAL PLASTER</u> <u>Cement plaster on brickwork</u> 3 On walls m2 631 4 On narrow widths m2			
	<p style="text-align: right;">Carried to Summary</p> <p>Bill No. 14 Plastering</p>		ZAR	Rate Only

Bill No. 15
Tiling

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO. 15</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p><u>CPAP WORK GROUP NO. 148</u></p> <p>HAYLETT FORMULA WORK GROUP NO.148 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 148 for Haylett Formula purposes</p> <p><u>PREAMBLES</u></p> <p>For preambles see " Specification of materials and methods to be used - PW 371"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>uPVC pipes and fittings</u></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p> <p><u>uPVC pressure pipes and fittings</u></p> <p>Pipes for water supply shall be of the class stated</p> <p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 16 Plumbing and Drainage (Provisional)</p>		ZAR	

Item No		Quantity	Rate	Amount
	<p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steelbasins, sinks, wash troughs, urinals, etc.</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 16 Plumbing and Drainage (Provisional)</p>		ZAR	

Item No		Quantity	Rate	Amount
	<u>Waste unions</u>			
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings			
	<u>RAINWATER DISPOSAL</u>			
	<u>Approved seamless aluminium ogee gutters with baked enamel finish and fixed in strict accordance with the manufacturere's instruction</u>			
1	127 x 140mm Eaves gutter	m	70	
2	Extra over 127 x 140mm eaves gutter for stopped end	No	6	
3	Extra over 127 x 140mm eaves gutter for outlet for 100 x 75mm diameter pipe	No	6	
4	100 x 75mm Rainwater downpipe fixed to wall	m	23	
5	Extra over 100 x 75mm rainwater downpipe for shoe	No	6	
6	Extra over 100 x 75mm rainwater downpipe for eaves or plinth offset 183mm projection	No	6	
	<u>SANITARY FITTINGS</u>			
	<u>Stainless steel sinks</u>			
	<u>Stainless steel Franke or other equal and approved type</u>			
7	Franke Quinline Model QLX622 Grade 304 18/10 polished stainless steel centre inset sink, or similar approved size 860 x 435mm wide with one 410 x 343 x 187mm deep bowl, including 90mm waste fitting (Code: 300651) and PVC traps (traps elsewhere specified). Sink guaranteed for 25 years against corrosion and supplied with protective plastic coating for transport and handling and to be removed once sink is made operational.	No	1	
	<u>Ceramic Vaal or other equal and approved type</u>			
	Carried to Collection		ZAR	
	Bill No. 16 Plumbing and Drainage (Provisional)			

Item No		Quantity	Rate	Amount
	<u>Wash hand basins</u>			
8	Vaal vitreous china rounded Tuscany wash hand basin, size 560mm x 415mm, or similar approved, with one centre punched taphole including intergrated overflow, Lotus half pedestal including all fitments, with and including Cobra Watertech Chromium plated waste union and plug to suit outlet and Cobra Taryn with 15mm chrome single lever basin mixer with pop-up waste, mounting kit, angle valves with sliding flanges, flexible connection tubes, etc., including all necessary pipes, bends, angles, reducers, etc., installed complete all as per Architect's details	No 24		
	<u>Water Closets</u>			
9	"Vaal" WC pan with double flap heavy duty plastic seat (flush valve and flush pipe elsewhere)	No 35		
10	"Vaal" or similar approved Wall hung paraplegic WC pan with cradle bracket and legs and double flap white epoxy painted plastic seat (flush valve and flush pipe elsewhere)	No 2		
	<u>Urinals</u>			
11	Vaal vitreous china wall hung Flatback urinal, overall size 415mm x 315mm x 275mm, supplied with 38mm diameter chromium plated inlet spreader, two hanger brackets, Cobra Watertech FJ60000 Flushmaster exposed flushvalve and Cobra Watertech FJT5.5 swanneck flush pipe and Cobra Watertech 345/40 chrome platted bottle trap, etc., including all necessary pipes, bends, angles, reducers, etc., installed complete all as per Architect's details	No 2		
	<u>"Cobra Watertech"</u>			
	<u>WASTE UNIONS ETC</u>			
12	32mm "Cobra Ref. 301" slotted basin waste with plug, chain and stay	No 24		
	<u>TRAPS ETC</u>			
	Carried to Collection		ZAR	
	Bill No. 16 Plumbing and Drainage (Provisional)			

Item No		Quantity	Rate	Amount
	<u>"Marley"</u>			
13	40mm Deep seal "P" or "S" trap	No 25		
	<u>Pre-cast concrete gulleys</u>			
14	110mm Dished gulley not exceeding 1m deep with 150mm steel grate and standard concrete gulley surround	No 1		
	<u>TAPS, VALVES, ETC</u>			
	<u>"Cobra Watertech"</u>			
15	15mm "Cobra Ref. 111-15 Star" CP pillartap	No 24		
Carried to Collection			ZAR	
Bill No. 16 Plumbing and Drainage (Provisional)				

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Item No		Quantity	Rate	Amount
	<u>SECTION NO.2</u>			
	<u>BILL NO. 16</u>			
	<u>GLAZING</u>			
	<u>CPAP WORK GROUP NO. 150</u>			
	HAYLETT FORMULA WORK GROUP NO.150 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 150 for Haylett Formula purposes			
	<u>PREAMBLES</u>			
	For preambles see " Specification of materials and methods to be used - PW 371"			
	<u>GLAZING TO STEEL WITH PUTTY</u>			
	<u>6mm Clear float glass</u>			
1	Panes exceeding 0,5m2 and not exceeding 2m2	m2		Rate Only
	<u>6mm Obscure float glass</u>			
2	Panes exceeding 0,5m2 and not exceeding 2m2	m2	9	
	<u>MIRRORS, ETC</u>			
	<u>6mm Silvered float glass copper backed mirrors with bevelled edges, holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</u>			
3	Mirror 450 x 600mm high with four screws	No	10	
	Carried to Summary			
	Bill No. 17 Glazing		ZAR	

Item No		Quantity	Rate	Amount
	<u>SECTION NO.2</u> <u>BILL NO. 17</u> <u>PAINTWORK</u> <u>CPAP WORK GROUP NO. 152</u> HAYLETT FORMULA WORK GROUP NO.152 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 152 for Haylett Formula purposes <u>PREAMBLES</u> For preambles see " Specification of materials and methods to be used - PW 371" <u>PAINTWORK, ETC TO NEW WORK</u> <u>ON FLOATED PLASTER</u> <u>Prepare and prime with Plaster Primer and apply two finishing coat matt finish paint</u> 1 On internal walls m2 631 <u>ON FIBRE-CEMENT</u> <u>Prepare and prime with Multi-Surface Primer one undercoat and apply two finishing coats PVA paint</u> 2 On ceilings m2 708 3 On fascias and barge boards m2 54 <u>ON METAL</u> <u>Spot priming defects in pre-primed surfaces with metal primer and apply two finishing coats high gloss enamel paint</u> 4 On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area) m2 26 <u>ON WOOD</u>			
	<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 18 Paintwork</p>		ZAR	

Item No		Quantity	Rate	Amount
5	<u>Sand smooth, seal knots prime with wood primer and apply two finishing coats gloss enamel paint</u> On doors	m2	389	
6	<u>Sand down to a smooth finish, stop with woc filler, apply one coat clear varnish interior thinned with 1:3 mineral turpentine and two finishing coats interior semi-gloss varnish</u> On skirtings, etc not exceeding 300 mm girth	m		Rate Only
<u>ON ASPHALT</u>				
7	<u>Prepare and apply one coat white reflective road marking paint on bituminous road surfacing, precast concrete paving blocks, etc</u> Directional Arrow 2500mm x 650mm mm overall (WM7.3)	No	40	
8	Directional Arrow 2500mm x 650mm mm overall (WM7.1/5)	No	8	
9	<u>Prepare and apply one coat yellow and black reflective road marking paint on bituminous road surfacing, precast concrete paving blocks, etc in 200mm wide</u> Painted Island (Parklanes)	m2	714	
<u>ON CONCRETE</u>				
10	<u>Prepare and prime with Multi-Surface Primer one undercoat and apply two finishing coats PVA paint</u> On ceilings	m2	752	
11	<u>Prepare and apply one coat white reflective road marking paint on concrete surfaces, precast concrete paving blocks, etc</u> Directional Arrow 2500mm x 650mm mm overall (WM7.3)	No	40	
12	Directional Arrow 2500mm x 650mm mm overall (WM7.1/5)	No	7	
Carried to Collection			ZAR	
Bill No. 18 Paintwork				

Item No		Quantity	Rate	Amount
13	<u>Prepare and apply one coat yellow and black reflective road marking paint on concrete surfaces, precast concrete paving blocks, etc in 200mm wide</u> Painted Island (Parklanes)	m2		Rate Only
Carried to Collection			ZAR	
Bill No. 18 Paintwork				

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Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO. 18</u></p> <p><u>ELECTRICAL WORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>NOTE:</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>Preambles</u></p> <p>The works and materials shall comply with:</p> <p>a. Latest edition of SANS 0142-1 and all the standards it references.</p> <p>b. Latest editions of IEC 61439 and IEC 60947.</p> <p>c. the "Occupational Health and Safety Act" of 1993 as amended to date.</p> <p>d. Municipal By-Laws and any special requirements of the local supply authority.</p> <p>e. Local Fire Office Regulations.</p> <p>In addition, the works are to be of high standard and to the satisfaction of the Electrical Engineer.</p> <p>Tenderers are further referred to Electrical Engineer's general specification forming part of this tender document</p> <p><u>TAXI RANK MAIN SITE</u></p> <p><u>Supply, delivery, installation, commissioning and testing of Electrical works complete in Accordance with SABS</u></p> <p><u>CABLE SLEEVES</u></p> <p><u>Supply and install the following ribbed cable sleeves underground, in walls, cast in concrete slabs etc. complete with bends, joints, adaptors, couplings, cutting, wastage etc. The sleeves shall be of brand Cableflex or other of the same quality.</u></p>			
1	50mm diameter PVC cable sleeve	m	666	
2	110 mm diameter PVC cable sleeve	m	1 331	
	Carried to Collection		ZAR	
	Bill No. 19 Electrical			

Bill No. 19
Electrical

Item No		Quantity	Rate	Amount
	<u>Supply and install hot-dip galvanized steel trunking (wiring duct) complete with standard accessories (such as threaded rods, hangers, clamps etc.)</u>			
17	127mm x 76mm ducting including cover and mounting accessories and holes/punch-outs for conduit adaptors and glands (P9000 with P9184)	m	207	
18	End caps for P9000	No	26	
19	90 deg bend for P9000, complete with cover	No	8	
20	T piece for P9000, complete with cover	No	8	
21	Cross for P9000, complete with cover	No	14	
	<u>CABLE TRAY</u>			
	<u>Supply and install hot-dip galvanized steel WWM (welded wire mesh) cable tray complete with mounting accessories. To be mounted on the roof trusses.</u>			
22	200 x 50 medium duty WWM cable tray	m	98	
23	Internal elbow (riser) for the above 200 x 50 cable tray	No	4	
24	External elbow (dropper) for the above 200 x 50 cable tray	No	7	
25	90 degree bend for the above 200 x 50 cable tray	No	6	
	<u>POWER SKIRTING, FLOOR PEDESTAL AND POWER POST</u>			
	<u>Supply and install power skirting, floor pedestal and power post, complete with cover plates, splices, earthing, elbows, end caps, cut-outs in the back for 100mm x 50mm outlet boxes, wastage etc.</u>			
26	2 compartment powder-coated steel power skirting including risers (colour to be confirmed)	m	248	
27	Flat tee for the above power skirting	No	9	
28	90 degree internal elbows for the above power skirting	No	11	
29	End cap for power skirting	No	20	
	Carried to Collection			ZAR
	Bill No. 19 Electrical			

Item No		Quantity	Rate	Amount
	<u>TRENCHING AND BACKFILLING, MANHOLES AND CABLE ROUTE MARKERS</u>			
	Cable trenches are to be 600mm deep, minimum 400mm wide or as specified (the recommend sizes shall be used for measurements). Excavate in earth and set excavated material aside for re-use as filling for the following material. Rates shall include for cable bedding soil, backfilling, compacting and making good. Backfilling of material shall be compacted in layers not exceeding 150mm in thickness.			
30	Excavations and backfilling for cable trenches in pickable material	m3	76	
31	Excavations and backfilling for cable trenches in 'hard pickable material' (Class 2).	m3	39	
32	Excavations and backfilling for cable trenches in 'rock' (Class 3)	m3	7	
33	600mm x 600mm x 600mm manhole complete with concrete covers. Cable sleeves shall be cast across the manhole walls	No	13	
34	Concrete cable route markers	No	2	
35	Cable warning tape	m	528	
	<u>CONDUCTORS AND ASSOCIATED BCEW</u>			
	Supply and install conductors and BCEW (Bare Copper Earth Wire) in conduits, trucking, power skirting etc., complete with labels and terminations etc.			
36	2.5mm ² 600/1000V PVC insulated conductor	m	946	
37	1.5mm ² BCEW for the above conductor	m	433	
38	4mm ² 600/1000V PVC insulated conductor	m	11 820	
39	2.5mm ² BCEW for the above conductor	m	5 910	
	<u>CABLES</u>			
	Carried to Collection			
	Bill No. 19 Electrical		ZAR	

Item No		Quantity	Rate	Amount
	<u>Sockets</u>			
52	Wall flushmouted 16A switched socket outlet with SANS 164-1 (normal triangular) socket and SANS 164-2 (compact) sockets and steel enamel coated cover plate (price excluding wall box) No	7		
53	Wall flush mouted socket outlet with SANS 164-1 (normal triangular) and SANS 164-2 (compact) and a 2A MCB for a switch, complete with white enamel cover plate (price excluding wall box) No	33		
54	Power skirting mounted 16A SANS 164-1 (normal triangular) switched socket outlet, complete with cover plate No	37		
55	Power skirting mounted 16A SANS 164-2 (compact) switched socket outlet, complete with cover plate No	37		
56	Power skirting mounted 16A SANS 164-4 red dedicated (triangular) switched socket outlet, complete with cover plate No	37		
57	Unswitched 6A socket outlet (SANS 164-3) installed in round conduit boxes, mouted on roof trusses No	107		
58	Surface mounted 16A SANS 164-1 outdoor socket outlet complete with box and sliding cover No	9		
59	Surface mounted 16A SANS 164-4 indoor socket outlet installed above ceiling, complete with surface box No	4		
60	Wall flush mouted RJ45 data socket, complete with white enamel coated cover plate (price excluding wall box) No	37		
61	Power skirting mounted RJ45 data socket, complete with cover plate No	11		
	<u>Switches and isolators</u>			
62	Single lever 16A one-way flush-mounted light switch with enamel-coated white cover plate (price excluding wall box) No	56		
Carried to Collection			ZAR	
Bill No. 19 Electrical				

Item No		Quantity	Rate	Amount
63	Single lever 16A two-way flush-mounted light switch with enamel-coated white cover plate (price excluding wall box)	No 2		
64	Two lever 16A one-way flush-mounted light switch with enamel-coated white cover plate (price excluding wall box)	No 2		
65	20A wall flush mouted 2 pole isolator complete with white enamel coated cover plate	No 1		
66	80A wall flush mouted 4 pole isolator complete with white enamel coated cover plate	No 1		
67	20A wall surface mounted 2 pole outdoor isolator complete with box and sliding cover	No 12		
68	20A wall surface mounted 3 pole outdoor isolator complete with box and sliding cover	No 3		
69	80A wall surface mounted 4 pole outdoor isolator complete with box and sliding cover	No 2		
70	PIR occupancy sensor with a 185sqm (@ 2.5m height) coverage. The sensor shall be ceiling-mounted and shall come complete with the necessary components, including DC power supply, to switcs AC circuits. These occupancy sensors shall be used to switch 3 phase extract facts	No 11		
71	Photocell IP65 in a Subra 65 fitting	No 7		
<u>LUMINAIRES</u>				
<u>Supply and install light fittings over round boxes in slab, brickwork or ceiling, complete with suspending chains, brackets, supports, connectors, wiring, flexible cable, connections and installation of lamps. Should the tenderer/bidder elect to supply light fitting brands other than specified (i.e. should the bidder opt for "approved equivalent"), the bidder shall submit technical specifications of such lights and lighting simulation results using the same,with his/her tender. A light fitting shall be deemed to be an equivalent only if it meets all the technical requirements given.</u>				
72	Genesis One Corvis 37W 600x600 LED panel light	No 107		
Carried to Collection			ZAR	
Bill No. 19 Electrical				

Item No			Quantity	Rate	Amount
73	Genesis One 18W Subra 65 bulkhead	No	177		
74	Genesis One 18W Subra 65 bulkhead with EYELID	No	48		
75	Genesis One 13W Estella 178 downlight	No	81		
76	Genesis One 20W Genproof 68 LED batten	No	22		
77	Genesis One 150W Genbay LED bay light mounted on underside of concrete slab	No	91		
78	Genesis One 100W Rigel 36 LED street light mounted on wall/slab	No	22		
79	Genesis One 250W Rigel 36 LED street light mounted at 3m one a streetlight pole	No	9		
80	Genesis One 250W Rigel 36 LED street light mounted at 12m one a streetlight pole	No	14		
81	Hot dipped galvanized street light pole with a light mounting height of 3m	No	4		
82	Hot dipped galvanized street light pole with a light mounting height of 12m	No	13		
<u>DISTRIBUTION BOARDS</u>					
<u>Manufacture, deliver, offload, supply, install, connect, test and commission the following DBs as per the drawing BPS2024-03-EE-SLD. The cost shall include for all equipment and accessories (doors, circuit breakers, isolators, ferrules, labelling, blanking, neutral bars, earth bars, bus bars, locks, testing certificates, testing sheet, factory drawings, 10% changes during construction etc.). The DBs shall be manufactured, and factory tested, by a reputable DB manufacturer, approved the Engineer prior to manufacture. The contractor shall not manufacture the DBs himself. Only reputable equipment brands, such as ABB, Schneider Electric, Siemens, Legrand etc. shall be accepted. The outdoor DBs shall have internal locks (similar to safe locks).</u>					
83	DB-BUS, indoor, wall-recessed, flush-mounted, with lockable doors	No	1		
84	DB-1, indoor, floor standing panel, wall-fixed, with lockable doors	No	1		
Carried to Collection				ZAR	
Bill No. 19 Electrical					

Item No		Quantity	Rate	Amount
85	DB-2, Outdoor, wall surface mount, with lockable doors. The lock shall be internal to the DB (similar to s safe door lock)	No 1		
86	DB-3, Outdoor, wall surface mount, with lockable doors. The lock shall be internal to the DB (similar to s safe door lock)	No 1		
87	DB-4, Outdoor, wall surface mount, with lockable doors. The lock shall be internal to the DB (similar to s safe door lock)	No 1		
88	DB-5, Outdoor, wall surface mount, with lockable doors. The lock shall be internal to the DB (similar to s safe door lock)	No 1		
89	DB-6, Outdoor, wall surface mount, with lockable doors. The lock shall be internal to the DB (similar to s safe door lock)	No 1		
90	DB-7, Outdoor, wall surface mount, with lockable doors. The lock shall be internal to the DB (similar to s safe door lock)	No 1		
	<u>EQUIPOTENTIAL BONDING AND EARTHING</u>			
91	Equipotential bonding and earthing as per SANS 10142-1, SANS 60364-4-41, SANS 10292 and other applicable standards. Note that Lightning Protection is to be done by others		SUM	
	<u>DECANTING SITE</u>			
	<u>CABLE SLEEVES</u>			
	<u>Supply and install the following ribbed cable sleeves underground, in walls, cast in concrete slabs etc. complete with bends, joints, adaptors, couplings, cutting, wastage etc. The sleeves shall be of brand Cableflex or other of the same quality.</u>			
92	110 mm diameter PVC cable sleeve	m 60		
	<u>TRENCHING AND BACKFILLING, MANHOLES AND CABLE ROUTE MARKERS.</u>			
	Carried to Collection		ZAR	
	Bill No. 19 Electrical			

Item No		Quantity	Rate	Amount
	<u>Cable trenches are to be 600mm deep, minmum 400mm wide or as specified (the recommend sizes shall be used for measurements). Excavate in earth and set excavated material aside for re-use as filling for the following material. Rates shall include for cable bedding soil, backfilling, compacting and making good. Backfilling of material shall be compacted in layers not exceeding 150mm in thickness.</u>			
93	Excavations and backfilling for cable trenches in pickable material.	m3	39	
94	Excavations and backfilling for cable trenches in 'hard pickable material' (Class 2)	m3	11	
95	Excavations and backfilling for cable trenches in 'rock' (Class 3)	m3	6	
96	600mm x 600mm x 600mm manhole complete with concrete covers. Cable sleeves shall be cast across the manhole walls	No	1	
97	Cable warning tape	m	180	
	<u>UNDERGROUND CABLE</u>			
	<u>Supply and install 600/1000V PVC/PVC/SWA+ECC/PVC Copper cables in sleeves, underground, cable ladders, cable trays, wiring ducts, conduits etc. Note that all 4C cables specified must have some of its SWA replaced with tinned copper wires (ECC) to allow the use of the armoring for earth return path. Therefore no BCEW is specified for these cables</u>			
98	16sqmm 4 Core Copper PVC/PVC/SWA+ECC/PVC cable	m	250	
99	Terminations for the above 16sqm 4 Core cable	No	6	
	<u>OVERHEAD CABLE</u>			
100	25sqmm 4 Core Aluminium ABC (Arial Bundle Conductor) on streetlight poles	m	300	
101	3 Phase Insulated Neutral ABC Suspension (0-30°) hardware			SUM
102	3 Phase Insulated Neutral ABC Strain (60-90°) hardware			SUM
	Carried to Collection			ZAR
	Bill No. 19 Electrical			

Item No		Quantity	Rate	Amount
103	3 Phase Insulated Neutral ABC Terminal hardware		SUM	
	<u>LUMINAIRES</u>			
	<u>Supply and install light fittings over round boxes in slab, brickwork or ceiling, complete with suspending chains, brackets, supports, connectors, wiring, flexible cable, connections and installation of lamps. Should the tenderer/bidder elect to supply light fitting brands other than specified (i.e. should the bidder opt for "approved equivalent"), the bidder shall submit technical specifications of such lights and lighting simulation results using the same, with his/her tender. A light fitting shall be deemed to be an equivalent only if it meets all the technical requirements given.</u>			
104	Genesis One 250W Rigel 36 LED street light mounted at 12m on a streetlight pole	No 10		
105	Hot dipped galvanized street light pole with a light mounting height of 12m	No 8		
106	Photocell IP65 in a Subra 65 fitting	No 2		
	<u>EQUIPOTENTIAL BONDING AND EARTHING</u>			
107	Equipotential bonding and earthing as per SANS 10142-1, SANS 60364-4-41, SANS 10292 and other applicable standards		SUM	
	<u>TESTING AND COMMISSIONING</u>			
108	<u>Testing, commissioning and issuing of CoC. The cost is to exclude the Main Taxi Rank Site.</u>		SUM	
	Carried to Collection		ZAR	
	Bill No. 19 Electrical			

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO.2</u>			
	<u>BILL NO. 19</u>			
	<u>STORMWATER DISPOSAL</u>			
	<u>CPAP WORK GROUP NO. 152</u>			
	HAYLETT FORMULA WORK GROUP NO.152 Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 152 for Haylett Formula purposes			
	<u>PREAMBLES</u>			
	For preambles see " Specification of materials and methods to be used - PW 371"			
	<u>STORMWATER DISPOSAL</u>			
	<u>Class 100D Stormwater concrete encased concrete pipes, with 100mm thick concrete around pipe, with spigot & socket joints with rubber rings laid to falls in ground including excavating trenches, flexible bedding and surround, backfilling (backfilling to be done in imported G6 material), compaction to 93% MOD AASHTO, risk of collapse to sides of excavations and dewatering of trenches</u>			
1	300mm Diameter pipe laid in ground not exceeding 1 000mm deep	m		Rate Only
	<u>Catchpits, manholes, inspection chambers, etc including concrete kerbs or precast concrete cover slabs (gratings and covers elsewhere)</u>			
2	Excavate for and build junction box 1100mm x 860mm and average depth not exceeding 1 000mm internally, all as per Engineers detail, including glavanised step irons, formwork, cover slab, benching, reinforcing, backfilling, compacting, etc complete	No		Rate Only
3	Excavate for and build grid inlet 1 040mm x 1 040mm and average depth not exceeding 1 000mm internally, all as per Engineers detail, including glavanised step irons, formwork, cover slab, benching, reinforcing, backfilling, compacting, etc complete	No	1	
	Carried to Collection		ZAR	
	Bill No. 20 Stormwater Disposal			

Item No		Quantity	Rate	Amount
	<u>CONCRETE STORMWATER DUCT</u>			
	<u>Concrete channels</u>			
	<u>2000mm Wide x 200mm deep V-Shaped, open 25Mpa/19mm concrete channel duct, 150mm thick, to slope including, excavation, V- shaping layerworks, compaction, 250 micron polyethylene sheeting, 617 mesh wire, formwork to edges, cast at 1.5m expansion joints, including joint sealing, jointing, pointing, steel floating, etc approved as per Engineer's details</u>			
4	V-Shaped concrete duct	m	43	
	<u>800mm Wide x 150mm deep U-Shaped, open 30Mpa/19mm concrete channel duct, 150mm thick, to slope including, excavation, U - shaping formwork, compaction, 250 micron polyethylene sheeting, formwork to edges, cast at 1.5m expansion joints, 45 x 45 x 5mm Hot dipped galvanised angle iron to seat grating, cast in with 75x25x5mm flat iron concrete anchor, including joint sealing, jointing, pointing, steel floating, etc approved as per Engineer's details</u>			
	U-Shaped concrete duct	m	137	
	<u>Covers and frames, etc</u>			
5	600mm wide, Rectangular catwalk type horizontal heavy duty steel grating trench cover, with 40 x 4.5mm edge and cross bar and 25 x 4.5mm longitudinal bended bars, including hot dipped galvanising	m	137	
	<u>SEWERWATER DISPOSAL</u>			
	<u>Class 10 HDPE PN10 or similar approved High Density Polyethylene soil and waste pipe installed in accordance with the manufacturers specifications with and including, expansion couplings, electroweld couplings, ring seal sockets, fusion welded joints in the running length, etc including excavation, bedding, backfilling, compaction, disposal of surplus material, etc. as per Eng details</u>			
6	160mm Diameter pipe laid in ground exceeding 1000mm but not exceeding 1500mm deep	m	183	
	Carried to Collection			
	Bill No. 20 Stormwater Disposal		ZAR	

Item No			Quantity	Rate	Amount
	<u>Extra over piping for</u>				
7	160mm Bend	No	18		
8	160mm Junction	No	4		
9	160mm Kimberly socket	No	31		
10	160mm Junction with inspection eye	No	11		
	<u>Catchpits, manholes, inspection chambers, etc including concrete kerbs or precast concrete cover slabs (gratings and covers elsewhere)</u>				
11	Excavate for and form manhole with 1350mm diameter precast concrete rings not exceeding 2000mm deep	No	11		
	<u>WATER RETICULATION</u>				
	<u>HDPE PE 100 Class PN12.5 or similar approved High Density Polyethylene soil and waste pipe installed in accordance with the manufacturers specifications with and including, expansion couplings, electroweld couplings, ring seal sockets, fusion welded joints in the running length, etc including excavation, bedding material, fill blanket, backfilling, compaction to 93% MOD ASHTO, disposal of surplus material, etc. as per Eng details</u>				
12	90mm Diameter pipe laid in ground not exceeding 1000mm deep	m	206		
	<u>Extra over piping for</u>				
13	90mm Bend	No	13		
14	90mm Junction	No	6		
15	90mm Kimberly socket	No	34		
16	Water meter	No	1		
17	Isolating Valve	No	4		
	Carried to Collection				
	ZAR				
	Bill No. 20 Stormwater Disposal				

Item No		Quantity	Rate	Amount
	<u>Catchpits, manholes, inspection chambers, etc including concrete kerbs or precast concrete cover slabs (gratings and covers elsewhere)</u>			
18	Excavate for and build concrete valve box 600mm x 600mm and average depth not exceeding 600mm internally, all as per Engineers detail, including 5Mpa/19mm concrete, formwork, 400x400mm steel cover lid, 50x50x5mm angle iron frame bolted down with M10 rawl bolts, backfilling, compacting, etc complete	No	4	
19	Excavate for and build inspection chamber, size 900 x 900mm and average depth not exceeding 1000mm internally, all as per Engineers details, including galvanised step irons, formwork, cover slab, benching, reinforcing, backfilling, compacting, etc complete	No	1	
	<u>Connections</u>			
20	Connect water reticulation to municipality point, including temporarily shutting off, notifications, etc. complete	No	1	
21	Connect sewer to municipality point, including temporarily shutting off, notifications, etc. complete	No	1	
22	Connect stormwater to municipality point, including temporarily shutting off, notifications, etc. complete	No	1	
Carried to Collection			ZAR	
Bill No. 20 Stormwater Disposal				

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Item No		Quantity	Rate	Amount
	<u>SECTION NO.2</u>			
	<u>BILL NO. 20</u>			
	<u>WALKWAYS - PAVING, ETC</u> <u>(PROVISIONAL)</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>NOTE:</u> For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>ROAD WORKS</u>			
	<u>MAKING GOOD OF FINISHES, ETC</u>			
	<u>Making good existing surfaces in asphalt</u>			
1	Prepare by cutting, cleaning, compacting and cold fill potholes with asphalt stone aggregate material and compact as per Engineers instruction	m3	100	
	<u>Surface Finishes</u>			
	<u>Bituminous premix road surfacing</u>			
2	25mm Thick premix as re-surfacing to existing parking areas, roadways, etc including tack coat	m2	1 000	
	<u>PAVING WORK</u>			
	<u>Paving to parking platform areas</u>			
	<u>Supply and laying of 60mm Thick 35MPa concrete interlocking block paving of 200 x 80mm grey paving blocks in accordance with SANS 1058, laid to falls on and including 20mm thick sand layer with joints filled in with sand, including preparation of ground or filling,dpm and compacted with a vibration compactor</u>			
3	Paving to platform areas etc to falls	m2	764	
4	Extra over for straight edge blocks Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing	m	1 065	
5	Fair circular cutting	m	166	
	Carried to Collection			
	Bill No. 21 Road works and Paving		ZAR	

Item No		Quantity	Rate	Amount
6	75 x 250mm High kerbs (SANS 927 fig 11) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc	m	1 065	
	<u>Paving to side walk areas</u>			
	<u>Supply and laying of 60mm Thick 35MPa concrete interlocking block paving of 200 x 80mm grey paving blocks in accordance with SANS 1058, laid to falls on and including 20mm thick sand layer with joints filled in with sand, including preparation of ground or filling,dpm and compacted with a vibration compactor</u>			
7	Paving to walkways areas etc to falls	m2	2 868	
8	Extra over for straight edge blocks Pre-cast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing	m	1 074	
9	75 x 250mm High kerbs (SANS 927 fig 11) with 150 x 150 x 300mm laid on unreinforced concrete haunching at back of each joint, and including finishing off, backfilling, etc	m	82	
10	Fair circular cutting	m	114	
	<u>Paving to road areas</u>			
	<u>Supply and laying of 60mm Thick 35MPa concrete interlocking block paving of 200 x 80mm grey paving blocks in accordance with SANS 1058, laid to falls on and including 20mm thick sand layer with joints filled in with sand, including preparation of ground or filling,dpm and compacted with a vibration compactor</u>			
11	Paving to ramped road areas etc to falls	m2	675	
12	75 x 250mm High kerbs (SANS 927 fig 11) with 150 x 150 x 300mm laid on unreinforced concrete haunching at back of each joint, and including finishing off, backfilling, etc	m	315	
13	Fair circular cutting	m	53	
Carried to Collection			ZAR	
Bill No. 21 Road works and Paving				

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Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.2</u></p> <p><u>BILL NO. 21</u></p> <p><u>MECHANICAL WORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>NOTE:</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed where HDPE is used</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>FIRE PROTECTION</u></p> <p><u>Supply, delivery, installation, commissioning and testing of Fire Protection Systems complete with connections and fittings in Accordance with SANS 10400 Part T and SANS 10400 Part W</u></p>			
1	100mm dia Two Port Booster with Pressure Guage (FPC)	No	1	
2	Φ100mm Storz Hydrant – Φ100mm female BSP inlet & Φ100mm Storz outlet (FPH)	No	1	
3	Φ110mm Class 16 HDPE piping for ring main	m	700	
	Carried to Collection		ZAR	
	Bill No. 22 Mechanical			

Item No			Quantity	Rate	Amount
4	Φ65mm Outlet Outdoor Type Fire Hydrant (FH)	No	7		
5	Φ110mm Galvanised Steel (SABS 62) Piping for Connection of Fire Hydrants	m	50		
6	Φ80mm Galvanised Steel (SABS 62) Piping for Connection of Fire Hydrants	m	120		
7	Φ80mm Class 16 HDPE Piping for Connection of Hydrant Reels	m	50		
8	30m, 20mm diameter, non-swinging rotary pattern type Fire Hose Reels	No	8		
9	Φ25mm Galvanised Steel (SABS 62) Piping for Connection of Fire Hose Reels	m	100		
10	Φ25mm Class 16 HDPE Piping for Connection of Fire Hose Reels	m	150		
11	Pipe Supports for Galavanised piping Reticulation at a manimum interval of 2.4m, Reducing Valves, Fittings and Accessories (Fire Hose Reels & Hydrants)			SUM	
12	Open Fire Hose Cabinet	No	8		
13	Red Oxide Imperial Paint	l	40		
	<u>Fire Extinguishers complete with chevron board</u>				
14	5 kg Carbon Dioxide Portable Fire Extinguishers	No	3		
15	4.5 kg Dry Chemical Powder Portable Fire Extinguishers	No	17		
16	Fire Extinguishers Cabinet for 4.5kg DCP	No	10		
	<u>Fire Equipment Signage</u>				
17	F5/F6, Size: 190mm x 570mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	3		
	Carried to Collection				
	Bill No. 22 Mechanical			ZAR	

Item No		Quantity	Rate	Amount
18	F5, Size: 190mm x 570mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No 3		
19	F4, Size: 190mm x 570mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No 3		
20	F16/F19, Size: 190mm x 380mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No 12		
21	F13, Size: 190mm x 380mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No 12		
<u>Evacuation Signage</u>				
22	E1, Size: 190mm x 380mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No 5		
23	E3, Size: 190mm x 380mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No 5		
Carried to Collection			ZAR	
Bill No. 22 Mechanical				

Item No		Quantity	Rate	Amount
	<u>PUMP ROOM PUMPHOUSE PIPEWORK & ELECTRICAL CONNECTIONS</u>			
24	300.0 m3 Steel Panel Water Storage Tank complete with accessories and fixtures - mounting plinths, strainers, non-return valves, ball valves, and inlet and outlet manifolds	No	1	
25	End suction Vertical centrifugal pump type, fire pump complete with 21 l/s at a total head of 5.5 Bar including by pass arrangement for periodical testing of the working of the pump set as required, strainer on suction side and pressure gauge on delivery side etc. The pump shall be provided with mechanical seals and outlet manifolds. The above mounted on a base, pre-piped, pre-wired and tested. Standby pump connected to diesel generator.	No	2	
26	Squirrel cage A.C induction motor suitable for operation on 415V, 3 Phase 50Hz A.C supply and of minimum 100kW for the above pump with flexible coupling as per specification	No		Included
27	All coupling of pump and motor should be covered with safety guard	No		Included
28	Jockey Pump: 1.5 L/s @ 5.5 Bar Jockey Electrically driven	No		Included
	<u>PUMP ROOM PUMPHOUSE PIPEWORK & ELECTRICAL CONNECTIONS</u>			
29	All pumphouse pipework and necessary valves as per tender drawings and specification	No		Included
30	All electrical panels, cabling, safeties, switches, etc for electrical pump, jockey pump and any other equipment housed within the pump house (You cannot measure the pumps again)	No		Included
	<u>Testing and Commissioning of all Fire Protection Installations</u>			
31	Testing and Commissioning of all Fire Protection Installations		SUM	
	<u>WET SERVICES - SUPPLY</u>			
	Carried to Collection		ZAR	
	Bill No. 22 Mechanical			

Item No		Quantity	Rate	Amount
	<u>Supply, delivery, installation, commissioning and testing of New water supply and waste water drainage piping, complete connections and fittings.</u>			
	<u>Cold/Hot Water Supply system</u>			
32	Φ15mm 460/0 Copper Piping for Connection of Cold Water Supply Piping complete with connections, reducers and fittings	m	200	
33	Φ22mm 460/0 Copper Piping for Connection of Cold Water Supply Piping complete with connections, reducers and fittings	m	150	
34	Φ28mm 460/0 Copper Piping for Connection of Hot Water Supply Piping complete with connections, reducers and fittings	m	80	
35	Pipe Supports at Dia. 15mm Copper Reticulation at a manimum interval of 1.8m, Reducing Valves, Fittings and AccessoriesAccessories (Braided Connectors, Elbows, Tees and etc.)			SUM
36	Pipe Supports at Dia. 22mm Copper Reticulation at a manimum interval of 1.8m, Reducing Valves, Fittings and AccessoriesAccessories (Braided Connectors, Elbows, Tees and etc.)			SUM
37	Pipe Supports at Dia. 28mm Copper Reticulation at a manimum interval of 2.4m, Reducing Valves, Fittings and AccessoriesAccessories (Braided Connectors, Elbows, Tees and etc.)			SUM
38	Sundries			SUM
	<u>Hot Water</u>			
39	10L Hydroboil complete with fittings	No	1	
40	Allowance for repairing and refurbishing water supply system in the Existing Ablution Building		Item	
	<u>Testing and Commissioning of all Fire Protection Installations</u>			
41	Testing and Commissioning of water supply Installations			SUM
	<u>WET SERVICES - DRAINAGE</u>			
	Carried to Collection			ZAR
	Bill No. 22 Mechanical			

Item No		Quantity	Rate	Amount
	<u>Supply, delivery, installation, commissioning and testing of New water supply and waste water drainage piping, complete connections and fittings.</u>			
	<u>uPVC drain pipe or silimar approved, to duct and walls including brackets & support to manufacturers specifications</u>			
42	110 mm pipe m	200		
43	50 mm pipe m	250		
	<u>Bends</u>			
44	110 mm Bend 22.5/87.5 deg No	16		
45	110 mm Bend 45 deg No	16		
46	110 mm Bend 45 deg Access Bend Left and Right Hand No	20		
47	50 mm Bend 22.5/8.5 deg No	20		
48	50 mm Bend 45 deg No	12		
49	50 mm Bend 45 deg Access Heel No	12		
50	50 mm Bend 22.5/87.5 deg Access Heel No	10		
	<u>Junctions</u>			
51	110 mm Junction 45 deg Ribbed Plain No	20		
52	110 mm Junction 45 deg Ribbed Left Hand No	16		
53	110 mm Junction 45 deg Ribbed Right Hand No	16		
54	50mm x 50mm x 87.5 deg Double Junction Plain No	20		
55	50mm x 50mm x 87.5 deg Double Junction Access Heel No	10		
56	50mm x 87.5 deg Single Junction No	10		
57	50mm x 87.5 deg Single Junction Access Heel No	10		
58	110 mm Junction With Screw Type Access Eye No	10		
	Carried to Collection		ZAR	
	Bill No. 22 Mechanical			

Item No			Quantity	Rate	Amount
	<u>Reducing Junctions</u>				
59	110 mm x 50mm x 45 deg Double Reducing Junction	No	8		
60	110 mm x 50mm x 87.5 deg Double Reducing Junction Access Heel	No	8		
61	100mm x 50mm x 45 deg Single Reducing Junction	No	10		
62	100mm x 50mm x 45 deg Single Reducing Junction Access Heel	No	10		
63	100mm x 50mm x 87.5 deg Single Reducing Junction Access Heel	No	10		
64	100mm x 50mm x 87.5 deg Double Reducing Junction Access Heel	No	10		
65	50 mm Reducing junctions	No	10		
	<u>Electroweld couplings</u>				
66	110 mm electroweld couplings	No	20		
67	50 mm Electroweld couplings	No	20		
	<u>Expansion Sockets</u>				
68	110mm Single Expansion Sockets	No	6		
69	110mm Double Expansion Socket	No	6		
70	50mm Single Expansion Socket	No	6		
71	50mm Double Expansion Socket	No	6		
	<u>Screwed End Caps</u>				
72	110 mm screw on caps	No	6		
73	50 mm Screwed end cap	No	6		
	<u>MI Adaptors</u>				
74	50 mm Adaptors	No	4		
	Carried to Collection			ZAR	
	Bill No. 22 Mechanical				

Item No		Quantity	Rate	Amount
	<u>FI Adaptors</u>			
75	50 mm adaptors	No 4		
	<u>Sundries</u>			
76	Sundries		SUM	
77	Allowance for repairing and refurbishing water drainage system in the Ablution Building	Item		
	<u>Testing and Commissioning</u>			
78	Testing and Commissioning of all Installations		SUM	
	<u>HVAC</u>			
	<u>Supply, delivery, installation, commissioning and testing of HVAC systems complete with connections, fittings, supports, etc...</u>			
	<u>Ventilations</u>			
79	Extraction Fan - Airflow 252.9L/s @150Pa Static Pressure	No 1		
80	Extraction Fan - Airflow 600.9L/s @160Pa Static Pressure	No 1		
81	Extraction Fan - Airflow 470.8L/s @150Pa Static Pressure	No 1		
	<u>Ducting</u>			
82	300mm dia	m 70		
83	250mm dia	m 80		
84	200mm dia	m 80		
85	150mm dia	m 90		
86	200mm dia Flexile duct	m 50		
87	150mm dia Flexile duct	m 90		
88	Elbows and Reducers		SUM	
	Carried to Collection		ZAR	
	Bill No. 22 Mechanical			

Item No			Quantity	Rate	Amount
89	Couplers and Suspension Rings/Hangers			SUM	
90	Extraction air disk	No	60		
91	Spigots	No	60		
92	Door Grilles Size: 400x200mm Door Grilles	No	55		
	<u>Air-Conditioning</u>				
	<u>3.5 kW cooling Inverter Split Four way Cassette unit (Inverter, R32) complete with outdoor unit, insulated refrigerant piping, condensate drains, trunking, electric wiring and connection, remote controls and top-up refrigerant</u>				
93	Split Indoor Unit, 3.5 kW cooling capacity complete with outdoor unit	No	4		
94	Wired Controller	No	4		
95	Chord for Wired Controller	m	20		
96	Refrigerant piping with insulation	m	100		
97	Condensate Drain piping complete with fittings	m	80		
	<u>5.29 kW cooling Inverter Split Four way Cassette unit (Inverter, R32) complete with outdoor unit, insulated refrigerant piping, condensate drains, trunking, electric wiring and connection, remote controls and top-up refrigerant</u>				
98	Split Indoor Unit, 5.29 kW cooling capacity complete with outdoor unit	No	2		
99	Wired Controller	No	2		
100	Chord for Wired Controller	m	10		
101	Refrigerant piping with insulation	m	60		
102	Condensate Drain piping complete with fittings	m	40		
	Carried to Collection			ZAR	
	Bill No. 22 Mechanical				

Item No			Quantity	Rate	Amount
	<u>5.29 kW cooling Inverter Split Indoor unit (Inverter, R32) complete with outdoor unit, insulated refrigerant piping, condensate drains, trunking, electric wiring and connection, remote controls and top-up refrigerant</u>				
103	Split Indoor Unit, 5.29 kW cooling capacity complete with outdoor unit	No	1		
104	Wired Controller	No	1		
105	Chord for Wired Controller	m	10		
106	Refrigerant piping with insulation	m	30		
107	Condensate Drain piping complete with fittings	m	20		
	<u>7.0 kW cooling Inverter Split Indoor unit (Inverter, R32) complete with outdoor unit, insulated refrigerant piping, condensate drains, trunking, electric wiring and connection, remote controls and top-up refrigerant</u>				
108	Split Indoor Unit, 7.0 kW cooling capacity complete with outdoor unit	No	1		
109	Wired Controller	No	1		
110	Chord for Wired Controller	m	10		
111	Refrigerant piping with insulation	m	20		
112	Condensate Drain piping complete with fittings	m	10		
	<u>14.1 kW cooling Inverter Split Indoor unit (Inverter, R32) complete with outdoor unit, insulated refrigerant piping, condensate drains, trunking, electric wiring and connection, remote controls and top-up refrigerant</u>				
113	Split Indoor Unit, 14.1 kW cooling capacity complete with outdoor unit	No	3		
114	Wired Controller	No	3		
115	Chord for Wired Controller	m	30		
116	Refrigerant piping with insulation	m	130		
117	Condensate Drain piping complete with fittings	m	70		
	Carried to Collection				
	Bill No. 22 Mechanical			ZAR	

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Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 22</u></p> <p><u>PROVISIONAL SUMS</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cash discount</u></p> <p>No cash discount. All provisional sums are "NET"</p> <p><u>Fuel, power and water for commissioning plant</u></p> <p>The cost of water, power and fuel for the commissioning of plant shall be borne by the Selected or Nominated Sub-contractor appointed for the relevant selected or nominated sub-contract works in terms of the conditions under which they have/are contracted for the specialist work involved</p> <p><u>Profit</u></p> <p>Provisional sums are net and do not include builder's discount. The Contractor may allow next to "Profit" items for any profit he might consider necessary</p> <p><u>Attendance</u></p> <p>It will be expected from the Contractor to render all general attendance and, if specifically so described, special attendance services to each relevant Specialist, all in accordance with the Clauses set out in the "Preliminaries" section</p> <p>The item "Attendance" which follows each of the provisional sums for nominated and/or selected sub-contractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the Nominated and/or Selected Sub-contractors, the following:</p> <ol style="list-style-type: none"> 1 The services as set out in the clauses in the "Preliminaries" section 2 Making good in all trades and cleaning down and removal of rubbish on completion <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 23 Provisional Sums</p>			
			ZAR	

Item No		Quantity	Rate	Amount
	<p>The Contractor may allow next to "Attendance" items for the recovery of such costs he might consider necessary</p> <p>Also refer to the Clauses in the "Preliminaries" section for the definitions and adjustment of "Attendance" and "Special Attendance" respectively</p> <p><u>Selected and nominated sub-contracts</u></p> <p>These scheduled allowances are for work to be executed under separate selected and/or nominated sub-contracts by firms of Specialists to be nominated by the Employer</p> <p>All provisional sums cover the supply and installation of material, equipment, plant, etc., including the commissioning thereof, where applicable</p> <p><u>Money provisions</u></p> <p>The scheduled allowances for money provisions are to be used at the discretion of the Employer/Principal Agent and to be adjusted where applicable or to be deducted in whole or in part if not required</p> <p><u>PROVISIONAL SUMS FOR NOMINATED SUB-CONTRACT WORKS</u></p> <p><u>Mechanical Elevator</u></p>			
1	Provide sum of R2 550 000 (Two million Five hundred and fifty thousand) for provision Mechanical elevator including all items	Item		2 550 000.00
2	Allow for profit on above if required	Item		
3	Allow for attendance	Item		
	<u>Mechanical & Fire provision Decanting site</u>			
4	Provide sum of R 351 513 (Three Hundred and Fifty One Thousand Five Hundred and Thirteen Rands) for fire and mechanical services at decanting area	Item		351 513.00
5	Allow for profit on above if required	Item		
6	Allow for attendance	Item		
	Carried to Collection		ZAR	
	Bill No. 23 Provisional Sums			

Item No		Quantity	Rate	Amount
	<u>Community Liason Officer</u>			
7	Provide the amount of R 195 000.00 (One Hundred and Ninety Five Thousand Rand) for the Community Liaison Officer (CLO)	Item		195 000.00
8	Allow for profit on above if required	Item		
9	Allow for attendance	Item		
	<u>Signage and Notice Boards</u>			
10	Provide sum of R 100 000 (One hundred thousand) for provision of Wall signage and, Road Signage	Item		100 000.00
11	Allow for profit on above if required	Item		
12	Allow for attendance	Item		
	<u>Tower Structure & Cladding</u>			
13	Provide sum of R 6 410 400 (Six Million Four hundred and Ten thousand Four hundred Rands) for provision of Tower Structure construction and cladding	Item		6 410 400.00
14	Allow for profit on above if required	Item		
15	Allow for attendance	Item		
	Carried to Collection		ZAR	
	Bill No. 23 Provisional Sums			

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<u>FINAL SUMMARY</u>				
Bill No		Page No		Amount
1	Preliminaries and General	44		
2	Alterations	51		
3	Foundation	59		
4	Concrete, Reinforcement and Formwork	65		
5	Masonry	69		
6	Waterproofing	72		
7	Roof Covering, ETC	75		
8	Carpentry and Joinery	82		
9	Ceilings, ETC	86		
10	Floor Coverings , Plastic Linings , ETC	87		
11	Ironmongery	91		
12	Structural Steelwork	95		
13	Metalwork	103		
14	Plastering	104		
15	Tiling	105		
16	Plumbing and Drainage (Provisional)	111		
17	Glazing	112		
18	Paintwork	116		
19	Electrical	128		
20	Stormwater Disposal	133		
21	Road works and Paving	136		
22	Mechanical	148		
Carried Forward			ZAR	

FINAL SUMMARY				
Bill No		Page No		Amount
	Brought Forward		ZAR	
23	Provisional Sums	152		
	Sub-total		ZAR	
	Allow a contingency amount of ZAR3 151 985.44 (Three Million One Hundred and Fifty One Thousand Nine Hundred and Eighty Five and Forty Four) to be used as directed by the Principal Agent.		ZAR	Included
	Sub-total		ZAR	
	VAT		ZAR	
			ZAR	