

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>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The JBCC Series 2000 Edition 4.1 Code 2101 March 2005 2005 edition prepared by the Joint Building Contracts Committee, shall be the agreement, amended as hereinafter described</p> <p>The Preliminaries for use with the JBCC Series 2000 Principal Building Agreement (May 2005 edition) prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated in these bills of quantities</p> <p>Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof</p> <p>These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the above-mentioned documents</p> <p>Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>P's and G's</p> <p>R MAHANGE & ASSOCIATES</p>		R	

Item No		Quantity	Rate	Amount
	<p>Notwithstanding anything to the contrary contained in any of the contract documents including the Principal Building Agreement and the Preliminaries, the provision of the "Preliminaries" as hereinafter set forth shall prevail and shall take precedence</p> <p><u>PREAMBLES FOR TRADES</u></p> <p>1 The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained</p> <p>Supplementary preambles to the Model Preambles covering clauses of a general nature, clauses pertaining to specific materials and amendments to clauses in the Model Preambles are incorporated in these bills of quantities to satisfy the requirements of this project</p> <p>The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the Model Preambles and in any supplementary preambles</p> <p><u>GENERAL</u></p> <p>If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories "F", "T" or "V" as the case may be below such item, where "F" denotes a fixed amount (amount not to be varied), "T" denotes an amount variable in proportion to time and "V" denotes an amount variable in proportion to value</p> <p style="text-align: right;">Carried to Collection</p> <p>P's and G's</p> <p>R MAHANGE & ASSOCIATES</p>			
		m		
			R	

Item No	Quantity	Rate	Amount
<u>SECTION A - PRINCIPAL BUILDING AGREEMENT</u>			
<u>Definitions (A1)</u>			
Definitions and interpretation (clause 1)			
F:..... V:..... T:.....	Item		
<u>Objective and Preparation (A2 to A14)</u>			
Offer acceptance and performance (clause 2)			
F:..... V:..... T:.....	Item		
Documents (clause 3)			
F:..... V:..... T:.....	Item		
Design responsibility (clause 4)			
F:..... V:..... T:.....	Item		
Employer's agents (clause 5)			
F:..... V:..... T:.....	Item		
The principal agent shall:			
- monitor and control progress and scheduling			
- monitor all contract conditions, and			
- coordinate the efforts of the employer's agents, the contractor and subcontractors			
Carried to Collection		R	
P's and G's			
R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	The powers conferred on the principal agent in terms of this clause and/or the exercising of these powers shall not be construed as removing or diminishing any of the obligations of the Contractor in terms of the Principal Building Agreement, whether financial, contractual or otherwise, nor shall the exercising of these powers create any privity of contract as between the Employer or his agents on the one part and the Contractor or subcontractors or suppliers on the other part			
	The principal agent reserves the right to attend and participate in all contractor/subcontractor's meetings, to invite other employer's agents to attend such meetings at his discretion and to converse and chair any such meetings if the contractor is derelict in his duty in arranging such meetings to the degree of frequency and comprehensiveness dictated in the opinion of the project manager by the circumstances and exigencies of the construction process			
	Site representative (clause 6)			
	F:..... V:..... T:.....	Item		
	Compliance with regulations (clause 7)			
	F:..... V:..... T:.....	Item		
	Works risk (clause 8)			
	F:..... V:..... T:.....	Item		
	Indemnities (clause 9)			
	F:..... V:..... T:.....	Item		
	Works insurances (clause 10)			
	F:..... V:..... T:.....	Item		
	Liability insurances (clause 11)			
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
F:..... V:..... T:.....	Item			
Effecting insurance (clause 12)				
F:..... V:..... T:.....	Item			
NO CLAUSE (Clause 13)				
Security (clause 14)				
F:..... V:..... T:.....	Item			
<u>Execution (A15-A23)</u>				
Preparation for and execution of the works (clause 15)				
F:..... V:..... T:.....	Item			
Access to the works (clause 16)				
F:..... V:..... T:.....	Item			
Contract instructions (clause 17)				
F:..... V:..... T:.....	Item			
Setting out of the works (clause 18)				
F:..... V:..... T:.....	Item			
The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachments				
Assignment (clause 19)				
F:..... V:..... T:.....	Item			
Carried to Collection			R	
P's and G's				
R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	The contractor shall not cede his rights or delegate his obligations in terms of this agreement unless specifically called for by the employer			
	Nominated subcontractors (clause 20)			
	F:..... V:..... T:.....	Item		
	Selected subcontractors (clause 21)			
	F:..... V:..... T:.....	Item		
	Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted			
	All amounts allowed under Provisional Amounts are intended to be awarded to Selected Subcontractors			
	Employer's Direct Contractors (clause 22)			
	F:..... V:..... T:.....	Item		
	Contractor's Domestic Sub-Contractors (Clause 23)			
	F:..... V:..... T:.....	Item		
	<u>Completion (A24-A30)</u>			
	Practical completion (clause 24)			
	F:..... V:..... T:.....	Item		
	Works completion (clause 25)			
	F:..... V:..... T:.....	Item		
	Final completion (clause 26)			
	F:..... V:..... T:.....	Item		
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	Latent defects liability period (clause 27)			
	F:..... V:..... T:.....	Item		
	Sectional completion (clause 28)			
	F:..... V:..... T:.....	Item		
	Revision of date of practical completion (clause 29)			
	F:..... V:..... T:.....	Item		
	The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3)			
	Penalty for non-completion (clause 30)			
	F:..... V:..... T:.....	Item		
	<u>Payment (A31 - A35)</u>			
	Interim payment to the contractor (clause 31)			
	F:..... V:..... T:.....	Item		
	Adjustment to the contract value (clause 32)			
	F:..... V:..... T:.....	Item		
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract 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 final certificate, it will be in writing			
	Recovery of expense and loss (clause 33)			
	F:..... V:..... T:.....	Item		
	Final account and final payment (clause 34)			
	F:..... V:..... T:.....	Item		
	The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion			
	The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account			
	Payment to other parties (clause 35)			
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
F:..... V:..... T:.....	Item			
Cancellation (A36-A39)				
Cancellation by employer - contractor's default (clause 36)				
F:..... V:..... T:.....	Item			
Cancellation by employer - loss and damage (clause 37)				
F:..... V:..... T:.....	Item			
Cancellation by contractor - employer's default (clause 38)				
F:..... V:..... T:.....	Item			
Cancellation - cessation of the works (clause 39)				
F:..... V:..... T:.....	Item			
Dispute (A40)				
Dispute Settlement (clause 40)				
F:..... V:..... T:.....	Item			
Substitute Provisions (A41)				
State clauses (Clause 41)				
F:..... V:..... T:.....	Item			
Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder				
P's and G's			R	
R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<p><u>THE SCHEDULE</u></p> <p>Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder</p> <p>Pre-tender information (clause 42)</p> <p>F:..... V:..... T:.....</p> <p><u>42.1 CONTRACTING AND OTHER PARTIES</u></p> <p>42.1.1 Employer: THE MVULA TRUST</p> <p>42.1.2 Principal Agent: R Mahange and Associates</p>	Item		
	<p style="text-align: right;">Carried to Collection</p> <p>P's and G's</p> <p>R MAHANGE & ASSOCIATES</p>		R	

Item No		Quantity	Rate	Amount
	<u>42.2 CONTRACT DETAILS</u>			
	42.2.1 Works Description: Construction of sanitation facilities			
	42.2.2 Site Description: as per the information on the tender data			
	42.2.3 Work or installations by direct contractors: N/A			
	42.2.4 This agreement is for a government contract where there are specific options that are applicable to a State organ only Yes			
	42.2.5 Date on which possession of the site is intended to be given: As per the information provided in the Tender Data			
	42.2.6 Period for the commencement of the works after the contractor takes possession of site: 7 DAYS			
	42.2.7 For the works as a whole. Intended date of practical completion and the penalty per calendar day Intended Date of Practical Completion: As per the information provided in the Tender Data			
	Penalty Amount: The penalty per calendar day shall be 7.5 cents per R100 of the Tendered Amount (inclusive of value added tax)			
	42.2.8 For the works in sections: Intended date of practical completion and the penalty per calendar day			
	Carried to Collection			
	P's and G's			
	R MAHANGE & ASSOCIATES			

R

Item No		Quantity	Rate	Amount
	N/A			
	42.2.9 The law applicable to this agreement shall be that of			
	South Africa (country)			
	<u>42.3 INSURANCES</u>			
	42.3.1 Contract works insurance to be effected by:			
	Contractor: For the Sum of R Contract Amount + 10.00 % With a deductible of - to be determined by the contractor			
	42.3.2 Supplementary insurance is required			
	No			
	42.3.3 Public liability insurance to be effected by:			
	Contractor: For the Sum of R 5 000 000-00 With a deductible of - to be determined by the contractor			
	<u>42.4 DOCUMENTS</u>			
	42.4.1 Waivers of contractors lien or right of continuing possession is required			
	Yes			
	42.4.2 Number of construction document copies to be supplied to the contractor free of charge:			
	3 Number of			
	Carried to Collection			
	P's and G's		R	
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<p>42.4.3 Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with:</p> <p>“Standard System of Measuring Builders’ Work”</p> <p>42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within</p> <p style="text-align: center;">5 working days</p> <p style="text-align: center;"><i>The priced bills of quantities must be handed in with the tender</i></p> <p>42.4.5 JBCC Engineering General Conditions are to be included in the contract documents:</p> <p style="text-align: right;"><i>No</i></p> <p>42.4.6 The contract value is to be adjusted using escalation adjustment indices</p> <p style="text-align: right;"><i>No</i></p> <p style="text-align: center;">Where JBCC CPAP is to be used</p> <p style="text-align: center;">Base Month N/A</p> <p>42.4.7 Details of changes made to the provision of JBCC standard documentation:</p> <p style="text-align: center;">Part 1 - Contract Data completed by Employer</p> <p><u>SECTION B: PRELIMINARIES</u></p> <p><u>Definitions and interpretation (B1)</u></p> <p>Definition and interpretation (B1.1 - B1.4.6)</p> <p style="text-align: center;">Carried to Collection</p> <p>P's and G's</p> <p>R MAHANGE & ASSOCIATES</p>			

Item No		Quantity	Rate	Amount
	F:..... V:..... T:..... <u>Documents (B2)</u> Checking of documents (B2.1) F:..... V:..... T:..... Provisional bills of quantities (B2.2) F:..... V:..... T:..... Availability of construction documentation (B2.3) F:..... V:..... T:..... Interests of agents (B2.4) F:..... V:..... T:..... Priced documents (B2.5) F:..... V:..... T:..... Tender submission (B2.6) F:..... V:..... T:..... Defined works area (B3.1) F:..... V:..... T:..... <u>The site (B3)</u> Geotechnical investigation (B3.2) F:..... V:..... T:..... Inspection of the site (B3.3)	 Item Item Item Item Item Item		
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	F:..... V:..... T:..... Existing premises occupied (B3.4)	Item		
	F:..... V:..... T:..... Specific requirements: The contractor shall also comply with the additional requirements with regard to the Coronavirus pandemic in terms of all Covid-19 legislation, regulations and guidelines.	Item		
	Previous work - dimensional accuracy (B3.5)			
	F:..... V:..... T:.....	Item		
	Previous work - defects (B3.6)			
	F:..... V:..... T:.....	Item		
	Services - known (B3.7)			
	F:..... V:..... T:.....	Item		
	Services - unknown (B3.8)			
	F:..... V:..... T:.....	Item		
	Protection of trees etc. (B3.9)			
	F:..... V:..... T:.....	Item		
	Articles of value (B3.10)			
	F:..... V:..... T:.....	Item		
	Inspection of adjoining properties etc. (B3.11)			
	F:..... V:..... T:.....	Item		
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No	Quantity	Rate	Amount
<u>Management of contract (B4)</u>			
Management of the works (B4.1)			
F:..... V:..... T:.....	Item		
Programme for the works (B4.2)			
F:..... V:..... T:.....	Item		
Progress meetings (B4.3)			
F:..... V:..... T:.....	Item		
Technical meetings (B4.4)			
F:..... V:..... T:.....	Item		
Labour and Plant records (B4.5)			
F:..... V:..... T:.....	Item		
<u>Samples, Shop Drawings and Manufacturer's Instructions (B5)</u>			
Samples of materials (B5.1)			
F:..... V:..... T:.....	Item		
Workmanship samples (B5.2)			
F:..... V:..... T:.....	Item		
Shop drawings (B5.3)			
F:..... V:..... T:.....	Item		
Compliance with Manufacturer's Instructions (B5.4)			
F:..... V:..... T:.....	Item		
Carried to Collection			R
P's and G's			
R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>Temporary works and plant (B6)</u>			
	Deposits and fees (B6.1)			
	F:..... V:..... T:.....	Item		
	Enclosure of the works (B6.2)			
	F:..... V:..... T:.....	Item		
	Advertising (B6.3)			
	F:..... V:..... T:.....	Item		
	Plant, equipment, sheds and offices (B6.4)			
	F:..... V:..... T:.....	Item		
	Main notice board (B6.5)			
	F:..... V:..... T:.....	Item		
	Subcontractors' notice board (B6.6)			
	F:..... V:..... T:.....	Item		
	<u>Temporary services (B7)</u>			
	Location (B7.1)			
	F:..... V:..... T:.....	Item		
	Water (B7.2)			
	Option [A] shall apply			
	F:..... V:..... T:.....	Item		
	Electricity (B7.3)			
	Carried to Collection			
	P's and G's		R	
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	Option [A] shall apply			
	F:..... V:..... T:.....	Item		
	Telecommunication facilities (B7.4)			
	F:..... V:..... T:.....	Item		
	Ablution facilities (B7.5)			
	Option [A] shall apply			
	F:..... V:..... T:.....	Item		
	<u>Prime cost amounts (B8)</u>			
	Responsibility for prime cost amounts (B8.1)			
	F:..... V:..... T:.....	Item		
	<u>Attendance on N/S Subcontractors (B9)</u>			
	General attendance (B9.1)			
	F:..... V:..... T:.....	Item		
	Special attendance (B9.2)			
	F:..... V:..... T:.....	Item		
	Commissioning - Fuel, water and power (B9.3)			
	F:..... V:..... T:.....	Item		
	<u>Financial aspects (B10)</u>			
	Statutory taxes, duties and levies (B10.1)			
	F:..... V:..... T:.....	Item		
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	Payment of preliminaries (B10.2)			
	Option [B] shall apply			
	F:..... V:..... T:.....	Item		
	Adjustment of preliminaries (B10.3)			
	Option [A] shall apply			
	F:..... V:..... T:.....	Item		
	Payment certificate cash flow (B10.4)			
	F:..... V:..... T:.....	Item		
	<u>General (B11)</u>			
	Protection of works (B11.1)			
	F:..... V:..... T:.....	Item		
	Protection/isolation of existing/sectionally occupied works (B11.2)			
	F:..... V:..... T:.....	Item		
	Security of the Works (B11.3)			
	F:..... V:..... T:.....	Item		
	Notice before covering work (B11.4)			
	F:..... V:..... T:.....	Item		
	Disturbance (B11.5)			
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No	Quantity	Rate	Amount
F:..... V:..... T:..... Environmental Disturbance (B11.6)	Item		
F:..... V:..... T:..... Works cleaning and clearing (B11.7)	Item		
F:..... V:..... T:..... Vermin (B11.8)	Item		
F:..... V:..... T:..... Overhand work (B11.9)	Item		
F:..... V:..... T:..... Instruction manuals and guarantees (B11.10)	Item		
F:..... V:..... T:..... As built information (B11.11)	Item		
F:..... V:..... T:..... Tenant Installations (B11.12)	Item		
<div>Carried to Collection</div> <div>P's and G's</div> <div>R MAHANGE & ASSOCIATES</div>			R

Item No		Quantity	Rate	Amount
	<u>Schedule of variables (B12)</u>			
	Pre-tender information (B12.1)			
	F:..... V:..... T:.....	Item		
	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional:			
	No			
	12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete			
	No			
	12.1.3 Interest of agents (B2.4)			
	12.1.4 Defined works area (B3.1)			
	12.1.5 Geotechnical investigation (B3.2)			
	N/A			
	12.1.6 Existing premises occupied (B3.4)			
	12.1.7 Previous work - dimensional accuracy (B3.4)			
	12.1.8 Previous work - defects (B3.5)			
	12.1.9 Services - known (B3.7)			
	12.1.10 Protection of trees (B3.9)			
	All trees should be protected and only on instruction of the Principal Agent may any trees be removed			
	Carried to Collection			
	P's and G's		R	
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	12.1.11 Inspection of adjoining properties (B3.11)			
	12.1.12 Enclosure of the works (B6.2)			
	12.1.13 Offices (B6.4.3)			
	Specific requirements:			
	The contractor shall provide, maintain and remove, on completion of the works, an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.			
	12.1.14 Main notice board (B6.5)			
	YES			
	12.1.15 Subcontractors notice board (B6.6) A notice board is required			
	Yes			
	12.1.16 Water (B7.2) Alternative Selected: A			
	12.1.17 Electricity (B7.3) Alternative selected: A			
	12.1.18 Telecommunications (B7.4)			
	12.1.19 Ablution facilities (B7.5) Alternative selected: A			
	12.1.20 Protection of existing/sectionally occupied works (B11.2)			
	Carried to Collection			
	P's and G's		R	
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
12.1.21	Special attendance (B9.2)			
	Subcontractor (1) details: N/A			
12.1.22	Protection of the works (B11.1)			
	N/A			
12.1.23	Disturbance (B11.5)			
	N/A			
12.1.24	Environmental Disturbance (B11.6)			
	N/A			
	<u>Post tender information (B12.2)</u>			
12.2.1	Payment of preliminaries Alternative selected: B			
12.2.2	Adjustment of preliminaries Alternative selected: A			
12.2.3	Additional agreed preliminaries items N/A			
	<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
	Any special items to meet the particular circumstances of a specific project are embodied in this section. Where required for an aspect of the works to be executed according to a design by a consulting engineer, a recital of the headings to the individual clauses of the JBCC Engineering General Conditions are included			
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<p>Site instructions</p> <p>Instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Black economic empowerment and training</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Proprietary branded products</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Testing of flat roof waterproofing for water tightness</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 36 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		
	<p>The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instructions after consultation with the manufacturer's authorised representative</p> <p>Contract instructions</p> <p>F:..... V:..... T:.....</p> <p>Contract instructions issued on site are to be recorded in triplicate in a contract instruction book which is to be supplied and maintained on site by the contractor</p>	Item		
	Carried to Collection		R	
P's and G's				
R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<p>Labour record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and descriptions of tradesmen and labourers employed by him and all subcontractors on the works each day of that week</p>	Item		
	<p>Plant record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools used on the works each day of that week</p>	Item		
	<p>Guarantees</p> <p>F:..... V:..... T:.....</p> <p>Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement</p>	Item		
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
Overtime F:..... V:..... T:..... Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer		Item		
Co-operation of contractor for cost management F:..... V:..... T:..... It is specifically agreed that the contractor accepts the obligation of assisting the professional consultants in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The quantity surveyor undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedures to be implemented and the contractor will attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures in regard to all subcontractors		Item		
Occupational Health and Safety Specification F:..... V:..... T:.....		Item		
Carried to Collection			R	
P's and G's				
R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<p>The contractor shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)</p> <p>It is required of the contractor to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document.</p> <p>The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.</p> <p>Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause, as well as the clauses that follow hereafter and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced under these clauses and no additional claims in this regard shall be entertained.</p> <p>The contractor shall also comply with the additional requirements with regard to the Coronavirus pandemic in terms of all Covid-19 legislation, regulations and guidelines. It is explicitly pointed out that all requirements of the aforementioned are deemed to be priced under this clause and the specific related clauses hereafter and no additional claims in this regard shall be entertained.</p> <p>Occupational Health and Safety Specification</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;">Carried to Collection</p> <p>P's and G's</p> <p>R MAHANGE & ASSOCIATES</p>			
		Item	R	

Item No		Quantity	Rate	Amount
	Preparation of contractor's site specific health and safety plan, including compliance with Covid-19 legislation, regulations and guidelines			
	Occupational Health and Safety Specification			
	F:..... V:..... T:.....	Item		
	Principal contractor's initial obligations in respect of the Health and Safety Act, Construction Regulations and Covid-19 regulations, etc			
	Occupational Health and Safety Specification			
	F:..... V:..... T:.....	Item		
	Principal contractor's time related obligations in respect of the Health and Safety Act, Construction Regulations and Covid-19 regulations, etc.			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of reflective vests			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of hard hats			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of protective footwear			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	Provision of earplugs			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of dust masks			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of gloves			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of high visibility overalls to SARTSM Chapter 13 Level 3			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of SANS approved ear defenders			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of face masks (Covid -19)			
	Provision of personal protective equipment (PPE)			
	F:..... V:..... T:.....	Item		
	Provision of face shields (Covid-19)			
	Provision of personal protective equipment (PPE)			
	Carried to Collection		R	
	P's and G's			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
F:..... V:..... T:.....	Item			
Provision of gloves (Covid-19)				
Provision of personal protective equipment (PPE)				
F:..... V:..... T:.....	Item			
Provision of hand sanitiser (min 70% alcohol), foot press stands and paper towels (Covid-19)				
Provision of personal protective equipment (PPE)				
F:..... V:..... T:.....	Item			
Provision of covered refuse bins and refuse bags and waste (including hazardous) management (Covid -19)				
Provision of personal protective equipment (PPE)				
F:..... V:..... T:.....	Item			
Provision of digital infra red non-contact body thermometer (Covid-19, minimum of two per site entrance)				
Provision of personal protective equipment (PPE)				
F:..... V:..... T:.....	Item			
Provision of perspex screens for office staff (Covid-19, minimum size 600 x 500mm)				
Provision of personal protective equipment (PPE)				
F:..... V:..... T:.....	Item			
Provision of signage, including Covid-19 related signage				
Provision of personal protective equipment (PPE)				
Carried to Collection			R	
P's and G's				
R MAHANGE & ASSOCIATES				

Item No	Quantity	Rate	Amount
F:..... V:..... T:..... Provision of full time construction health and safety officer (SACPCMP Registered) Provision of personal protective equipment (PPE)	Item		
F:..... V:..... T:..... Medical certificates and medical surveillance including initial (baseline) medical examinations, periodic examinations, and exit examinations Provision of personal protective equipment (PPE)	Item		
F:..... V:..... T:..... Medical screenings, examinations, etc. in terms of Covid-19 regulations Provision of personal protective equipment (PPE)	Item		
F:..... V:..... T:..... Induction training, including Covid-19 training Provision of personal protective equipment (PPE)	Item		
F:..... V:..... T:..... Provision of first aid boxes to GSR requirements Provision of personal protective equipment (PPE)	Item		
F:..... V:..... T:..... Noise monitoring including establishment of noise zones (plant), audio grams (personnel), etc. F:..... V:..... T:.....	Item		
Carried to Collection			R
P's and G's			
R MAHANGE & ASSOCIATES			

Item No	Quantity	Rate	Amount
<p>Submission of health and safety file</p> <p>HIV/AIDS Awareness</p> <p>F:..... V:..... T:.....</p> <p>It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document. Provision for pricing of HIV/AIDS awareness is made under items C11.1 to C11.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained.</p> <p>The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.</p> <p><u>SUMMARY OF CATEGORIES</u></p> <p>Category : Fixed R.....</p> <p>Category : Value R.....</p> <p>Category : Time R.....</p> <p style="text-align: right;">Carried to Collection</p> <p>P's and G's</p> <p>R MAHANGE & ASSOCIATES</p>	Item		

Bill No. 1			
P's and G's			
<u>COLLECTION</u>			
	Page No		Amount
Brought Forward		R	
Total Brought Forward from Page No.	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		
	31		
	32		
Carried to Summary		R	
P's and G's			
R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2:DEMOLITIONS AND ALTERATIONS</u></p> <p><u>ALTERATIONS</u></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 extent 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.</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 of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.</p>			
	<p style="text-align: right;">Carried to Collection</p> <p>Alterations</p> <p>R MAHANGE & ASSOCIATES</p>		R	

Item No		Quantity	Rate	Amount
	<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 principal agent.</p> <p>Doors, fanlights, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehangng, 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 of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork.</p> <p><u>DEMOLITIONS AND ALTERATIONS</u></p> <p><u>DEMOLITIONS OF EXISTING TOILET STRUCTURES</u></p>			
1	Allow an amount of R30 000 for demolitions	Item		
2	Demolish existing pit toilet structures including hacking up and removing foundations and surface beds, doors, windows and door frames, ironmongery and plumbing fittings complete.All pits are to be filled with soil	No		
	Carried to Collection		R	
	Alterations			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
3	Demolish existing ground slab(max strength and size, 25 MPa and 10m2 respectively) with mesh reinforcement for pit toilets that have been abandoned.All pits are to be filled with soil.	No		
Alterations				
R MAHANGE & ASSOCIATES				
Carried to Collection			R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 3</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Nature of ground</p> <p>Use "assumed to be" if no trial holes, soils investigations, etc have been carried out - discuss with engineer. Use "Trial holes indicate that" where the ground has been investigated by means of trial holes</p> <p>Nature of ground</p> <p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured</p> <p>Carting away of excavated material</p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p>Filling</p> <p style="text-align: right;">Carried to Collection</p> <p>M1+D- Enviroloo</p> <p>R MAHANGE & ASSOCIATES</p>			

Item No		Quantity	Rate	Amount
	<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p> <p>Soil poisoning</p> <p>Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent</p> <p><u>SITE CLEARANCE ETC</u></p> <p>Site clearance</p>			
1	<p>Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc</p> <p>m2</p>	38		
	<p>Section No. 1 BUILDING Bill No. 1 EARTHWORKS (PROVISIONAL)</p>			
2	<p>Stripping average 100mm thick layer of top soil and stockpiling on site</p> <p>m2</p>	36		
	<p><u>EXCAVATION, FILLING, ETC</u></p> <p>Excavation in earth not exceeding 2m deep</p>			
3	<p>Trenches</p> <p>m3</p>	12		
4	<p>Pits</p> <p>m3</p>	5		
5	<p>Thickening under aprons</p> <p>m3</p>	4		
	<p style="text-align: right;">Carried to Collection</p>			
	<p>M1+D- Enviroloo</p> <p>R MAHANGE & ASSOCIATES</p>		R	

Item No		Quantity	Rate	Amount
	Extra over trench and hole excavations in earth for excavation in			
6	Soft rock	m3	2	
7	Hard rock	m3	2	
	Extra over all excavations for carting away			
8	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	4	
	Risk of collapse of excavations			
9	Sides of trench and hole excavations not exceeding 1,5m deep	m2	49	
	Keeping excavations free of water			
10	Keeping excavations free of all water other than subterranean water	Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density			
11	Under floors, steps, paving, etc	m3	14	
12	Backfilling to trenches, holes, etc	m3	8	
	Compaction of surfaces			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	3	
14	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density (Enviro Loo Tanks Pit)	m2	4	
	Carried to Collection			
	M1+D- Enviroloo			R
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
15	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	5	
	Prescribed density tests on filling			
16	Modified AASHTO Density	No	5	
	<u>SOIL POISONING</u>			
	Weedkiller mixed in accordance to supplier's specifications			
17	To bottoms and sides of trenches, etc.	m2	49	
18	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming(pits)	m2	19	
19	Under floors, aprons etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	26	
	Soil insecticide			
20	To bottoms and sides of trenches etc	m2	49	
21	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming(pits)	m2	19	
22	Under floors, aprons etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	26	
	Carried to Collection			
	M1+D- Enviroloo			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 3</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	UNREINFORCED CONCRETE, ETC.			
	15MPa/19mm concrete			
23	Surface blinding under footings and bases	m3	1	
24	Aprons cast in panels to falls	m3	12	
25	Extra over for concrete thickening in aprons size approximately 100mm deep, 400mm at top and tapering one side to 200mm at bottom, including all excavations, cart away, etc.	m	22	
	25MPa/19mm concrete			
26	Strip footings	m3	4	
27	Ramps	m3	2	
	<u>REINFORCED CONCRETE</u>			
	25MPa/19mm concrete			
28	Surface beds in pits	m3	1	
29	Extra over for thickening in pits for thickening size approximately 150mm deep, 500mm at top and tapering to 400mm at bottom, incl. all excavations, cart away, etc.	m	1	
	Carried to Collection			
	M1+D- Enviroloo			
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
	30Mpa/19mm concrete				
30	Surface beds cast in panels on waterproofing.	m3	2		
31	Slabs (pits)	m3	2		
	TEST CUBES				
32	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	Sets	9.0		
	<u>CONCRETE SUNDRIES</u>				
	Finishing top surfaces of concrete smooth with a wood float/steel trowel				
33	Surface beds, slabs, etc	m2	20		
34	Surface beds, slabs, etc (pits)	m2	4		
35	Aprons to falls	m2	26		
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>				
	Smooth formwork to sides				
36	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	5		
	Permanent formwork to soffits				
37	Slabs propped up not exceeding 1,5m high	m2	5		
38	Form 500mm radius opening in floor slab	No	3		
	<u>REINFORCEMENT (PROVISIONAL)</u>				
	Carried to Collection			R	
	M1+D- Enviroloo				
	R MAHANGE & ASSOCIATES				

[illegible]

Item No	Quantity	Rate	Amount
<u>SECTION NO. 3</u>			
<u>BILL NO. 3</u>			
<u>MASONRY</u>			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
<u>SUPPLEMENTARY PREAMBLES</u>			
BRICKWORK			
Sizes in descriptions			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
Face bricks			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
Pointing			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<u>FOUNDATIONS (PROVISIONAL)</u>			
Brickwork of NFP bricks in class II mortar			
42	One brick walls	m2	11
43	One brick walls in pits	m2	
Carried to Collection			
M1+D- Enviroloo			
R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	FACE BRICKWORK			
44	Extra over brickwork for face brickwork m2	9		
	<u>SUPERSTRUCTURE</u>			
	Brickwork of NFP bricks in class II mortar			
45	Half brick walls m2	21		
46	Half brick walls in beamfilling m2	16		
47	One brick walls m2	99		
	FACE BRICKWORK			
48	Extra over brickwork for face brickwork m2	65		
	Section No. 1 BUILDING Bill No. 3 MASONRY			
49	Extra over brickwork for brick-on-edge header course lintel m	14		
50	110mm Wide sill set level and slightly projecting m	6		
51	220mm Wide sill set sloping and slightly protecting outside m	4		
52	Fair cutting fitting around pipe not exceeding 100mm No	10		
53	Fair cutting fitting around pipe exceeding 100mm and not exceeding 200mm diameter No	5		
	BRICKWORK SUNDRIES			
	Brickwork reinforcement			
54	75mm Wide reinforcement built in horizontally m	55		
	Carried to Collection		R	
	M1+D- Enviroloo			
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
55	150mm Wide reinforcement built in horizontally	m	230		
	Galvanised wire ties etc				
56	6mm Diameter roof tie 2m long with one end fixed to timber and other end built into brickwork	No	25		
	Turning pieces to lintels etc.				
57	115mm Wide turning pieces	m	55		
58	230mm Wide turning pieces	m	230		
	Prestressed fabricated lintels				
59	110 x 75mm Lintels in lengths exceeding 3m and not exceeding 6m	m	7		
	Air bricks etc.				
60	230 x 152mm terra-cotta vermin proofed louvered air brick	No	12		
Carried to Collection					R
M1+D- Enviroloo					
R MAHANGE & ASSOCIATES					

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 3</u>			
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>			
	One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course			
61	In walls m2	5		
	One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"			
62	Under surface beds m2	19		
63	Under aprons and ramps m2	30		
	FLOOR AND WALL SEALERS			
	Secomastic non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight			
64	Around steel windows and door frames m	10		
	Carried to Collection		R	
	M1+D- Enviroloo			
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 3</u>			
	<u>BILL NO. 6</u>			
	<u>CARPENTRY AND JOINERY</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<u>ROOFS, ETC.</u>			
	Sawn softwood grade 6			
67	76 x 38mm Wall plates m	16		
68	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m m	25		
69	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m m	25		
	Sundries			
70	Two coats creosote on sawn timbers m ²	35		
71	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together No	30		
72	Hurricane clips No	35		
	<u>EAVES, VERGES, ETC</u>			
	Pressed fibre-cement:			
73	15 x 230mm Nutec Fascias and barge boards including galvanised steel H-profile jointing strips m	21		
	<u>DOORS, ETC</u>			
	Carried to Collection		R	
	M1+D- Enviroloo			
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 3</u>			
	<u>BILL NO. 7</u>			
	<u>IRONMONGERY</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<u>HINGES, BOLTS, ETC</u>			
	100mm Chrome plated "D" type handle 3 by solid brace hinges			
	CATCHES,CABIN HOOKS, ETC			
77	100mm brace Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	2	
	<u>LOCKS</u>			
	Approved			
78	Three lever mortice lock set	No	2	
79	Indicator lock set	No	2	
80	Security double throw dead lock (no latch)	No	2	
	<u>HANDLES, ETC.</u>			
	Aluminium Pull Handle			
81	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres.	Item		
	<u>SUNDRIES</u>			
	Carried to Collection		R	
	M1+D- Envirolloo			
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
	ASSA ABLOY				
82	38mm Diameter rubber door stop plugged	No	2		
	Vaal Paragon				
83	32mm Type 9 back grab rail 800mm long plugged	No	1		
84	32mm Type 8 side grab rail 900mm girth plugged	No	1		
	<u>LETTERS, NAMEPLATES, ETC</u>				
	Dorma:				
85	DSS-130 Engraved "Female" information sign, plugged	No	1		
86	DSS-133 Engraved "Disabled" information sign, plugged	No	1		
	<u>BATHROOM FITTINGS</u>				
	Sundries				
	Kimberley-Clark or Similar				
87	SQ2 code 405607B white none lockable toilet roll holder	No	3		
	stainless Steel				
88	Stainless steel mirror size: 350 x 400mm plugged to wall with chrome plated screws.	No	1		
89	Brushed stainless steel body, rust resistant, she bin, approximately 330 x 280 x 180mm etc	No	1		
	Carried to Collection				
	M1+D- Enviroloo				
	R MAHANGE & ASSOCIATES				

R

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 3</u>			
	<u>BILL NO. 8</u>			
	<u>METALWORK</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<u>WELDED SCREENS, GATES, ETC</u>			
	Gates to external doors			
90	Purpose made square hollow section mild steel single security gate and frame size to fit standard door, size 813 x 2032mm high	No	1	
91	Single gate and frame size to fit none standard door, size approximately 915 x 2032mm high (disable)	No	1	
	<u>PRESSED STEEL DOOR FRAMES</u>			
	1,2mm Double rebated frames suitable for half brick walls			
92	Frame for door size 813 x 2032mm high	No	2	
	1,2mm Double rebated frames suitable for one brick walls			
93	Frame for door size 813 x 2032mm high	No	1	
94	Frame for door size 914 x 2032mm high	No	1	
	<u>STEEL WINDOWS, DOORS, ETC</u>			
	Nty steel or similar approved school windows with standard burglar bars formed of 20 x 5mm thick flat bars to all sashes			
95	Window type NE1, size 533 x 654mm high	No	4	
	Carried to Collection			R
	M1+D- Enviroloo			
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
96	Window type NE7, size 1022 x 654mm high	No	1		
	Sundries				
	Cage, etc				
97	She bin cages, to fit 330 x 280 x 180mm width, she bin to be able to open, including pad lock and locking mechanism, complete, etc	No	1		
Carried to Collection					R
M1+D- Enviroloo					
R MAHANGE & ASSOCIATES					

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 3</u>			
	<u>BILL NO. 10</u>			
	<u>PLUMBING AND DRAINAGE(PROVISIONAL)</u>			
	RAINWATER DISPOSAL			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	Aluminium Zinc Seamless Gutters			
102	100 x 100mm sandard rainwater gutters fixed with gutter brackets	m	20	
103	Extra over eaves gutter for stopped end	No	2	
104	75 x 100mm Diameter rainwater down pipes fixed to wall	m	10	
105	Extra over eaves gutter for outlet for 75 x 100mm down pipe	No	2	
106	Ditto .for shoe	No	2	
	<u>SANITARY FITTINGS</u>			
	"Vaal" or similar and approved			
107	Ceramic wall mounted wash hand basin, complete with all fittings and accesseries including cutting & making good wall & floor wherever required for disable toilets.	No	2	
	SUPPLY AND INSTALL "ENVIRO-LOO" TOILET SYSTEMS			
108	Enviroloo Industrial Standard seat system complete, (Code: FG-1040STDCA/B3)	No	2	
	Carried to Collection			
	M1+D- Enviroloo			R
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
109	Enviroloo two (3) Pan Urinal system complete (ABS) (FG-URI3PA/B3)	No 1		
	PRECAST CONCRETE WASH HAND TROUGH			
110	Standard SABS approved Pre-Cast Concrete Double Wash Trough, 1080 x 650 x 850mm high with support legs fitted with standard 3/4 Brass Garden Taps, fixed complete to berick wall, including all necessary pipework, including soak away as per 'Engineers detail'.	No 1		
	Rainwater tank, etc.			
111	5000 Litre watertank fitted onto and secured to tank platforms including fastening cables	No 1		
	Carried to Collection			
	M1+D- Enviroloo		R	
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	uPVC pipes			
119	50mm Pipes m	50		
	Extra over uPVC pipes for fittings			
120	50mm Bend No	7		
121	50mm Access bend No	7		
122	50mm Junction No	7		
	WATER SUPPLIES			
	Class 0 copper pipes			
123	15mm Pipes m	10		
124	22mm Pipes m	10		
	Extra over class 0 copper pipes for capillary fittings			
125	15mm Fittings No	5		
126	22mm Pipes No	3		
	TESTING			
127	Allow for testing all drains, sanitary plumbing, water supplies and installtion to the satisfaction of the Principle Agent.	Item		
	Carried to Collection		R	
	M1+D- Envirolooo			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 3</u></p> <p><u>BILL NO. 12</u></p> <p><u>GLAZING</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p>GLAZING TO STEEL WITH PUTTY</p> <p>6,38mm Obscure safety glass</p>			
128	<p>Panes not exceeding 0,1 m2</p> <p>m2</p>	3		
	<p>Carried to Collection</p> <p>M1+D- Envirolloo</p> <p>R MAHANGE & ASSOCIATES</p>		R	

Item No	Quantity	Rate	Amount
<u>SECTION NO. 3</u>			
<u>BILL NO. 13</u>			
<u>PAINTWORK</u>			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
PAINTWORK ETC TO NEW WORK			
PREPARATORY WORK TO EXISTING WORK			
Previously painted plastered surfaces			
Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth			
Previously painted metal surfaces			
Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
Previously painted wood surfaces			
Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth			
<u>ON FIBRE-CEMENT</u>			
Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint			
129	On fascias and barge boards	m2	4
Carried to Collection			R
M1+D- Enviroloo			
R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	ON METAL			
	Prime and paint undercoat and 2 finishing coats in gloss enamel, colour TBC.			
130	On door frames	m2	3	
	Spot prining defects in pre-prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP. golden brown gloss enamel paint on steel			
131	On windows with burglar bars	m2	3	
	1 coat zinc chromate primer minimum and 2 coats gloss enamel (Exterior Quality)			
132	On gates (Measured over the full flat area of both sides)	m2	5	
	Section No. 1 BUILDING Bill No. 12 PAINTWORK			
	ON WOOD			
	Under coat and minimum 2 coats gloss enamel, colour TBC			
133	On doors (External)	m2	5	
134	On doors (Internal)	m2	7	
	Carried to Collection			
	M1+D- Envirolloo			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p>SUPPLEMENTARY PREAMBLES</p> <p>Nature of ground</p> <p>Use "assumed to be" if no trial holes, soils investigations, etc have been carried out - discuss with engineer. Use "Trial holes indicate that" where the ground has been investigated by means of trial holes</p> <p>Nature of ground</p> <p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured</p> <p>Carting away of excavated material</p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p>Filling</p> <p style="text-align: right;">Carried to Collection</p> <p>Gr4 Waterborne</p> <p>R MAHANGE & ASSOCIATES</p>			
			R	

Item No		Quantity	Rate	Amount
	<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p> <p>Soil poisoning</p> <p>Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent</p> <p>SITE CLEARANCE ETC</p> <p>Site clearance</p>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	35	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	35	
	EXCAVATION, FILLING, ETC			
	Excavation in earth not exceeding 2m deep			
3	Trenches	m3	25	
4	Thickening under aprons	m3	10	
	Extra over trench and hole excavations in earth for excavation in			
5	Soft rock	m3	4	
6	Hard rock	m3	1	
	Carried to Collection			
	Gr4 Waterborne			R
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	Extra over all excavations for carting away			
7	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	22	
	Risk of collapse of excavations			
8	Sides of trench and hole excavations not exceeding 1,5m deep	m2	45	
	Keeping excavations free of water			
9	Keeping excavations free of all water other than subterranean water	Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density			
10	Under floors, steps, paving, etc	m3	6	
11	Backfilling to trenches, holes, etc	m3	12	
	Compaction of surfaces			
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	40	
13	Under floors, steps, paving, etc.	m2	35	
	Prescribed density tests on filling			
14	Modified AASHTO Density	No	5	
	SOIL POISONING			
	Weedkiller mixed in accordance to supplier's specifications			
15	To bottoms and sides of trenches, etc.	m2	35	
	Carried to Collection			R
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
16	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	35	
	Soil insecticide			
17	To bottoms and sides of trenches etc	m2	35	
18	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	35	
Carried to Collection				R
Gr4 Waterborne				
R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	UNREINFORCED CONCRETE, ETC.			
	15MPa/19mm concrete			
19	Surface blinding under footings and bases	m3	3	
20	Aprons cast in panels to falls	m3	10	
21	Ramp	m3	3	
	25MPa/19mm concrete			
22	Strip footings	m3	8	
	REINFORCED CONCRETE			
	25MPa/19mm concrete			
23	Surface beds	m3	10	
	TEST CUBES			
24	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	Sets	24.0	
	CONCRETE SUNDRIES			
	Carried to Collection			
	Gr4 Waterborne			R
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO.4</u>			
	<u>BILL NO.3</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	REINFORCEMENT (PROVISIONAL)			
	Mild steel reinforcement to structural concrete work			
27	8mm Diameter bars	t	3.00	
28	10mm Diameter bars	t	1.00	
	Fabric Reinforcement			
29	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds etc.	m2	45	
	Carried to Collection			
	Gr4 Waterborne			R
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	Corobrick "Letaba Satin Face bricks" pointed with recessed horizontal and vertical joints:			
32	Extra over brickwork for face brickwork	m2	35	
	SUPERSTRUCTURE			
	Brickwork of NFP bricks in class II mortar			
33	Half brick walls in beamfilling .	m2	10	
34	Half brick walls	m2	40	
35	One brick walls	m2	55	
	FACE BRICKWORK			
	Corobrick "Letaba Satin Face bricks" pointed with recessed horizontal and vertical joints:			
36	Extra over brickwork for face brickwork	m2	100	
	Section No. 2 BUILDING Bill No. 4 MASONRY			
	Corobrick "Letaba Satin Face bricks" Brick-on-edge header course copings, sills, etc pointed with recessed joints on all exposed faces:			
37	Extra over brickwork for brick-on-edge header course lintel	m	10	
38	110mm Wide sill set level and slightly projecting	m	10	
39	220mm Wide sill set sloping and slightly protecting outside	m	10	
40	Fair cutting fitting around pipe not exceeding 100mm	No	12	
41	Fair cutting fitting around pipe exceeding 100mm and not exceeding 200mm diameter	No	6	
	Carried to Collection			
	Gr4 Waterborne			R
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
	BRICKWORK SUNDRIES				
	Brickwork reinforcement				
42	75mm Wide reinforcement built in horizontally	m	100		
43	150mm Wide reinforcement built in horizontally	m	300		
	Galvanised wire ties etc				
44	6mm Diameter roof tie 2m long with one end fixed to timber and other end built into brickwork	No	30		
	Turning pieces to lintels etc.				
45	115mm Wide turning pieces	m	6		
46	230mm Wide turning pieces	m	10		
	Prestressed fabricated lintels				
47	110 x 75mm Lintels in lengths exceeding 6m	m	12		
	Air bricks etc.				
48	230 x 152mm terra-cotta vermin proofed louvered air brick	No	130		
	Carried to Collection				
	Gr4 Waterborne			R	
	R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 5</u>			
	<u>WATERPROOFING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	DAMP-PROOFING OF WALLS AND FLOORS			
	One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course			
49	In walls	m2	12	
	One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"			
50	Under surface beds	m2	88	
	FLOOR AND WALL SEALERS			
	Secomastic non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight			
51	Around steel windows and door frames	m	130	
	Carried to Collection		R	
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 7</u>			
	<u>CARPENTRY AND JOINERY</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	ROOFS, ETC.			
	Sawn softwood grade 6			
54	76 x 38mm Wall plates m	35		
55	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m m	115		
56	50 x 76mm Purlins in lengths exceeding 8,1 m	130		
	Sundries			
57	Two coats creosote on sawn timbers m2	60		
58	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together No	100		
59	Hurricane clips No	100		
	EAVES, VERGES, ETC			
	Pressed fibre-cement:			
60	15 x 230mm Nutec Fascias and barge boards including galvanised steel H-profile jointing strips m	50		
	DOORS, ETC			
	Carried to Collection		R	
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 8</u>			
	<u>IRONMONGERY</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	HINGES, BOLTS, ETC			
	100mm Chrome plated "D" type handle 3 by solid brace hinges			
	CATCHES,CABIN HOOKS, ETC			
63	100mm brace Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	10	
	LOCKS			
	Approved			
64	Three lever mortice lock set	No	4	
65	Two lever mortice lock set	No	3	
66	Security double throw dead lock (no latch)	No	4	
	HANDLES, ETC.			
	Aluminium Pull Handle			
67	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres.	No	7	
	SUNDRIES			
	Carried to Collection			
	Gr4 Waterborne			R
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
	ASSA ABLOY				
68	38mm Diameter rubber door stop plugged	No	7		
	Vaal Paragon				
69	32mm Type 9 back grab rail 800mm long plugged	No	1		
70	32mm Type 8 side grab rail 900mm girth plugged	No	1		
	LETTERS, NAMEPLATES, ETC				
	Dorma:				
71	DSS-130 Engraved "male" information sign, plugged	No	1		
72	DSS-131 Engraved "Female" information sign, plugged	No	1		
73	DSS-133 Engraved "Disabled" information sign, plugged	No	1		
	Section No. 2				
	BUILDING				
	Bill No. 8				
	IRONMONGERY				
	BATHROOM FITTINGS				
	Sundries				
	Kimberley-Clark or Similar				
74	SQ2 code 405607B white none lockable toilet roll holder	No	6		
	stainless Steel				
75	Stainless steel mirror size: 350 x 400mm plugged to wall with chrome plated screws.	No	6		
	Carried to Collection				
	Gr4 Waterborne			R	
	R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 9</u>			
	<u>METALWORK</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	WELDED SCREENS, GATES, ETC			
	Gates to external doors			
76	Purpose made square hollow section mild steel single security gate and frame size to fit standard door, size 813 x 2032mm high	No	3	
	PRESSED STEEL DOOR FRAMES			
	1,2mm Double rebated frames suitable for half brick walls			
77	Frame for door size 813 x 1914mm high	No	4	
	1,2mm Double rebated frames suitable for one brick walls			
78	Frame for door size 813 x 2032mm high	No	3	
	STEEL WINDOWS, DOORS, ETC			
	Nty steel or similar approved school windows with standard burglar bars formed of 20 x 5mm thick flat bars to all sashes			
79	Window type NE1, size 533 x 654mm high	No	7	
80	Window type NE7, size 1022 x 654mm high	No	3	
	Carried to Collection			R
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	SECTION NO.4			
	BILL NO.10			
	PLASTERING			
	GRANOLITHIC			
	Untinted granolithic on concrete			
81	20mm Thick on floors	m2	20	
	Carried to Collection		R	
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 10</u>			
	<u>PLUMBING AND DRAINAGE(PROVISIONAL)</u>			
	RAINWATER DISPOSAL			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	Aluminium Zinc Seamless Gutters			
82	100 x 100mm standard rainwater gutters fixed with gutter brackets	m	20	
83	Extra over eaves gutter for stopped end	No	4	
84	75 x 100mm Diameter rainwater down pipes fixed to wall	m	15	
85	Extra over eaves gutter for outlet for 75 x 100mm down pipe	No	4	
86	Ditto .for shoe	No	4	
	SANITARY FITTINGS			
	"Vaal" or similar and approved			
87	Ceramic wall mounted wash hand basin, complete with all fittings and accesseries including cutting & making good wall & floor wherever required.	No	3	
88	WC suite, comprising with pan and double flap heavy duty plastic seat and matching cistern with flush pipe, complete with all fittings and accesseries including cutting & making good wall & floor wherever required.	No	4	
	Carried to Collection			
	Gr4 Waterborne			R
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
89	Paraplegic floor mounted suite with purpose made flush lever, etc. Complete with all fittings and accesseries including cutting & making good wall & floor wherever required.	No	1	
	PRECAST CONCRETE WASH HAND TROUGH			
90	Standard SABS approved Pre-Cast Concrete Double Wash Trough, 1080 x 650 x 850mm high with support legs fitted with standard 3/4 Brass Garden Taps, fixed complete to berick wall, including all necessary pipework, including soak away as per 'Engineers detail'.	No	1	
	Rainwater tank, etc.			
91	2 500 Litre watertank fitted onto and secured to tank platforms including fastening cables	No	1	
	SOIL DRAINAGE			
	uPVC pipes			
92	110mm Pipes laid in and including trenches not exceeding 1m deep	m	50	
	Extra over uPVC pipes for fittings			
93	110mm Bend	No	3	
94	110mm Junction	No	3	
	uPVC gulleys			
95	110mm Gulley not exceeding 750mm deep, including excavations, pre-cast concrete sorround etc.	No	3	
	WASTE UNIONS ETC			
	"Cobra Watertech"			
96	Cobra Watertech 32mm chrome plated basin waste (code: 308) with 62mm diameter flange, 80mm long shank and plug	No	2	
	Carried to Collection			R
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
	TRAPS ETC				
	"Cobra Watertech"				
97	Cobra Ref. 365/40" CP bottle trap	No	2		
	Marley				
98	40 x 300mm Sink combination for double bowl with deepseal "P" trap	No	2		
	TAPS, VALVES, ETC				
99	Cobra Watertech 15mm compression type angle regulating valve with 10mm bendable copper outlet tube service connection (Code: 232/350).	No	2		
100	Cobra Watertech 15mm chrome plated bibtap (Code: NM-500-21B) with blue indice and elbow action lever, manufactured in accordance with SANS 226:2009 Type 2 (BS 5412).	No	2		
	SANITARY PLUMBING				
	uPVC pipes				
101	50mm Pipes	m	40		
	Extra over uPVC pipes for fittings				
102	50mm Bend	No	6		
103	50mm Access bend	No	6		
104	50mm Junction	No	6		
	WATER SUPPLIES				
	Class 0 copper pipes				
105	15mm Pipes	m	10		
	Carried to Collection				
	Gr4 Waterborne			R	
	R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
106	22mm Pipes	m	10	
	Extra over class 0 copper pipes for capillary fittings			
107	15mm Fittings	No	5	
108	22mm Pipes	No	3	
	SUNDRIES			
109	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	20	
110	Ditto, but in hard rock	m3	5	
111	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the contractor	m3	5	
112	Extra over backfilling to drain trenches, chambers, etc for suitable earth backfilling supplied by the contractor	m3	20	
	TESTING			
113	Allow for testing all drains, sanitary plumbing, water supplies and installtion to the satisfaction of the Principle Agent.	Item		
	Carried to Collection			
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 11</u></p> <p><u>GLAZING</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p>GLAZING TO STEEL WITH PUTTY</p> <p>6,38mm Obscure safety glass</p>			
114	<p>Panes not exceeding 1 m2</p> <p>m2</p>	3		
	<p>Gr4 Waterborne</p> <p>R MAHANGE & ASSOCIATES</p>			
	<p>Carried to Collection</p>		R	

Item No	Quantity	Rate	Amount
<u>SECTION NO. 4</u>			
<u>BILL NO. 12</u>			
<u>PAINTWORK</u>			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
PAINTWORK ETC TO NEW WORK			
PREPARATORY WORK TO EXISTING WORK			
Previously painted plastered surfaces			
Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth			
Previously painted metal surfaces			
Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
Previously painted wood surfaces			
Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth			
ON FIBRE-CEMENT			
Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint			
115	On fascias and barge boards	m2	25
Carried to Collection			R
Gr4 Waterborne			
R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	ON METAL			
	Prime and paint undercoat and 2 finishing coats in gloss enamel, colour TBC.			
116	On door frames m2	4		
	Spot prining defects in pre-prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP. golden brown gloss enamel paint on steel			
117	On windows with burglar bars m2	7		
	1 coat zinc chromate primer minimum and 2 coats gloss enamel (Exterior Quality)			
118	On gates (Measured over the full flat area of both sides) m2	5		
	ON WOOD			
	Under coat and minimum 2 coats gloss enamel, colour TBC			
119	On doors (External) m2	5		
120	On doors (Internal) m2	7		
	Carried to Collection		R	
	Gr4 Waterborne			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>SECTION5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>WATER SUPPLY</u>			
	<u>Class 10 HDPe type IV pipes</u>			
1	40mm Pipes laid in and including trenches not exceeding 1m deep	m	10	
2	50mm Pipes laid in and including trenches not exceeding 1m deep	m	805	
	<u>Extra over Class 10 HDPE type IV pipes for fittings</u>			
3	40mm Fittings	No	3	
4	40mm Reducer	No	3	
5	40mm Bend	No	3	
6	50mm Reducer	No	8	
7	50mm Bend	No	8	
8	50mm Threaded adaptor	No	8	
	<u>Galvanised medium steel pipes with screwed and socketed joints</u>			
9	50mm Pipes	m	805	
	<u>Extra over galvanised medium steel pipes with screwed and socketed joints for steel fittings</u>			
10	50mm Fittings	No	10	
11	50mm Bush	No	10	
	Carried to Collection			
	External works			R
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>WATER TANKS</u>			
	<u>ELEVATED WATER TANKS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>Excavation in earth not exceeding 2m deep</u>			
16	Holes	m3	12	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
17	Soft rock	m3	1	
18	Hard rock	m3	2	
	<u>Extra over all excavations for carting away</u>			
19	Surplus material from excavations and/stock piles on site to the dumping site to be located by the Contractor.	m3	1	
	Risk of collapse of excavations			
20	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	12	
	<u>Keeping excavations free of water.</u>			
21	Keeping excavations free of water.		Item	
	<u>Earth filling obtained from the excavations and / or prescribed stock piles on site compacted to 93 % Mod AASHTO density</u>			
22	Backfilling to trenches, holes, etc.	m3	4	
	Carried to Collection			
	External works			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>Soil insecticide</u>			
23	To bottoms and sides of trenches, etc.	m2	12	
	<u>One layer of 250 micron green medium density waterproof sheeting sealed at laps with pressure sensitive tape in accordance with the manufacturer's instructions.</u>			
24	Under surface beds	m2	12	
	15Mpa/19mm Concrete			
25	Blinding	m3	1	
	<u>25Mpa/19mm Concrete</u>			
26	Bases	m3	3	
27	Platform surface beds cast in panels	m3	1	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
28	Platform surface beds	m2	12	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
29	On top of bases	m2	2	
	<u>"Jojo" or equal approved SANS PVC water tanks</u>			
30	2 500 Litre plastic water tank fitted onto and secured to tank platforms	No	1	
	<u>Galvanized medium normalized mild steel piping</u>			
31	25mm Pipes	m	10	
32	50mm Pipes	m	8	
	Carried to Collection			
	External works			
	R MAHANGE & ASSOCIATES			

Item No			Quantity	Rate	Amount
	<u>Extra over galvanised mild steel water supply pipes for fittings:</u>				
33	25mm Fittings.	No	10		
34	50mm Elbows.	No	8		
35	50mm Union.	No	10		
36	50mm Reducing bush.	No	8		
	<u>"Cobra Watertech" or other equal approved</u>				
37	15mm "Cobra Ref. 108LK" brass hose biptap.	No	6		
38	50mm Fullway gate valve	No	6		
	<u>The following in structural steel tank stands</u>				
	<u>Welded steel columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>				
39	80 x 80mm x 6mm angle columns	t	0.60		
	<u>Steel members and girth, bolted to steel</u>				
40	30 x 30mm x 6mm Flat-bar	t	0.50		
41	40 x 40mm x 5mm angle	t	0.50		
42	125 x 75mm x 8mm unequal angle	t	0.50		
43	125 x 50mm x 20 x 2mm Lipped channel	t	0.50		
	<u>BOLTS, FASTENERS, ETC. (LI)</u>				
44	High tensile bolts	t	0.50		
45	12mm Diameter L-shaped threaded anchor bolt 350mm girth embedded in top of concrete	No	15		
	Carried to Collection				
	External works			R	
	R MAHANGE & ASSOCIATES				

[illegible]

Item No		Quantity	Rate	Amount
	<u>STAND PIPES</u>			
	<u>SEPTIC TANK AND FRENCH DRAINS</u>			
	<u>SEPTIC TANKS, ETC.</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
48	Allow the amount of R150 000.00 (One hundred and fifty thousand rand) for the refurbishment of the septic tank not clearly defined, to be used as directed by the principal agent and deducted in whole or in part if not required.	Item		
	<u>SITE CLEARANCE ETC</u>			
	<u>Site clearance</u>			
49	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	75	
	<u>EXCAVATION, FILLING, ETC.</u>			
	<u>Excavation in earth exceeding 2m and not exceeding 4m deep</u>			
50	Holes	m3	100	
	Extra over all excavations for carting away			
51	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	40	
	<u>Risk of collapse of excavations</u>			
52	Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep	m2	65	
	Carried to Collection			
	External works			R
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
53	Backfilling to trenches, holes, etc	m3	10	
	Keeping excavations free of water			
54	Keeping excavations free of all water other than subterranean water	Item		
	<u>REINFORCED CONCRETE</u>			
	<u>15MPa/19mm concrete</u>			
55	15Mpa in blinding	m3	5	
	<u>25MPa/19mm concrete</u>			
56	25Mpa in base	m3	10	
57	25Mpa in slab over septic tank	m3	12	
58	Concrete haunch formed below pipes	m3	1	
	<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
59	Surface beds, slabs, etc. to falls	m2	30	
	<u>Permanent formwork to soffits</u>			
60	Slab over septic tank	m2	30	
	Smooth formwork to form			
61	Opening not exceeding 1m girth through 170mm slab	No	4	
	Carried to Collection			
	External works			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>			
	<u>Smooth formwork to sides</u>			
62	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	25	
	<u>REINFORCEMENT</u>			
	<u>Fabric reinforcement</u>			
63	Type 888 fabric reinforcement in concrete surface beds, slabs, etc	m2	50	
	<u>MASONRY</u>			
	<u>Brickwork of NFP bricks in class II mortar</u>			
64	One brick walls	m2	100	
	<u>Brickwork reinforcement</u>			
65	150mm Wide reinforcement built in horizontally	m	240	
	<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
66	Extra over brickwork for face brickwork in foundation	m2	20	
	<u>BRICKWORK SUNDRIES</u>			
67	Leave of form 450 x 150mm high opening through a one brick wall	No	4	
68	Leave or form opening through one brickwall for pipe 110mm dia	No	4	
	<u>PLASTERING</u>			
	<u>Watertight cement plaster on brickwork</u>			
	Carried to Collection			R
	External works			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
69	On walls Screed	m2 	80	
70	On floors <u>Two coats approved epoxy coats</u>	m2 	30	
71	On walls and floors <u>PLUMBING AND DRAINAGE</u> <u>uPVC pipes</u>	m2 	80	
72	110mm Pipes Extra over uPVC pipes for fittings	m 	50	
73	110mm Tee <u>Cover, etc</u>	No 	4	
74	600 x 600mm Type 2A cast iron single seal manhole cover and frame	No	4	
75	Lifting key for manhole cover	No	1	
Carried to Collection				R
External works				
R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<u>FRENCH DRAINS</u>			
	<u>SITE CLEARANCE ETC.</u>			
	<u>Site clearance</u>			
76	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	30	
	<u>EXCAVATION, FILLING, ETC.</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
77	Holes	m3	30	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
78	Soft rock	m3	1	
79	Hard rock	m3	1	
	<u>Extra over all excavations for carting away</u>			
80	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	10	
	<u>Risk of collapse of excavations</u>			
81	Sides of trench and hole excavations not exceeding 1,5m deep	m2	4	
	<u>Keeping excavations free of water</u>			
82	Keeping excavations free of all water other than subterranean water	Item		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site (not compacted)</u>			
	Carried to Collection		R	
	External works			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
83	On top of french drain as soil cover	m3	8	
	<u>FILTER FABRIC</u>			
	<u>"Kaytech Engineered Fabric" or similar approved laid in strict accordance to the manufacturer's instructions</u>			
84	"Kaymat U14" or equal approved around stone filling in sub-soil drain trenches	m2	30	
	<u>20mm Graded stone filling or similar approved</u>			
85	In holes	m3	5	
	200 - 300mm Diameter clean washed stone filling or similar approved by engineer			
86	In holes	m3	15	
	<u>WATERPROOFING</u>			
	<u>One layer of 250 micron "Tarkon USB Green" or equal approved waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
87	On top of pipes as protection of joints	m2	30	
	<u>ROOF SHEETING</u>			
	<u>Roof sheeting</u>			
88	On top of french drain	m2	30	
	<u>uPVC pipes</u>			
89	110mm pipes laid in and including trenches	m	45	
90	160mm pipes laid in and including trenches	m	40	
	Carried to Collection			
	External works			
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>WATER HARVESTING TANKS</u>			
	<u>WATER TANKS</u>			
	<u>SITE CLEARANCE ETC</u>			
	<u>Site clearance</u>			
93	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	70	
	<u>EXCAVATION, FILLING, ETC.</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
94	Trenches	m3	40	
	Extra over trench and hole excavations in earth for excavation in			
95	Soft rock	m3	5	
96	Hard rock	m3	5	
	<u>Extra over all excavations for carting away</u>			
97	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	10	
	<u>Risk of collapse of excavations</u>			
98	Sides of trench and hole excavations not exceeding 1,5m deep	m2	20	
	<u>Keeping excavations free of water</u>			
99	Keeping excavations free of all water other than subterranean water	Item		
	Carried to Collection		R	
	External works			
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>25MPa/19mm concrete</u>			
102	Strip footings	m3	10	
103	Platform surface beds cast in panels	m3	5	
	<u>FINISHING TOP SURFACE OF CONCRETE</u>			
	<u>Finishing top surfaces of concrete smooth with a wood float/steel trowel</u>			
104	Surface beds, slabs, etc (rainwater tanks)	m2	31	
	<u>REINFORCEMENT</u>			
	<u>Fabric reinforcement</u>			
105	Type 295 fabric reinforcement in concrete surface beds, slabs, etc	m2	31	
	<u>TEST CUBES</u>			
106	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.	Sets	3.0	
	<u>BRICKWORK</u>			
	<u>Brickwork of NFP bricks in class II mortar</u>			
107	One brick walls	m2	17	
	Carried to Collection			
	External works			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
	<u>BRICKWORK SUNDRIES</u>			
	<u>Brickwork reinforcement</u>			
108	150mm Wide reinforcement built in horizontally	m	50	
	<u>FACE BRICKWORK</u>			
	<u>Face bricks (Purchase price of R5 000-00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>			
109	Extra over brickwork for face brickwork	m2	23	
	<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R3 500,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>			
110	Coping on top of one brick wall	m	50	
	<u>WATERPROOFING</u>			
	<u>One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
111	Under surface beds	m2	31	
	<u>WATER SUPPLIES</u>			
	<u>"Jojo" approved SANS PVC water tanks</u>			
112	5000 Litre plastic water tank fitted onto and secured to tank platforms	No	2	
	<u>Galvanized medium normalized mild steel piping</u>			
113	25mm Pipes	m	10	
	Carried to Collection			
	External works			
	R MAHANGE & ASSOCIATES			

[illegible]

Item No		Quantity	Rate	Amount
	<u>PAVED WALKWAYS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>Site Clearance</u>			
116	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc.	m2	350	
117	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	350	
	<u>Open face excavation in earth over sloping site</u>			
118	Excavation in earth not exceeding 2m open face excavation to form platforms under parking areas etc and depositing excavated material over site, including haulage not exceeding 10m from perimeter of excavations exceeding 2m deep	m3	105	
	<u>Extra over all excavations for carting away</u>			
119	Surplus material from excavations and/stock piles on site to the dumping site to be located by the Contractor.	m3	105	
	<u>Earth filling supplied by the contractor under parking areas, roadways, etc</u>			
120	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 93% Mod AASHTO density	m3	105	
	<u>Compaction of surfaces</u>			
	Carried to Collection		R	
	External works			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
121	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	350	
	<u>Soil poisoning</u>			
122	Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l and atrisien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m ² on cleared ground	m2	350	
	<u>60mm Thick precast concrete DZZ interlocking heavy duty block paving of grey paving blocks in accordance with SANS 1058, laid to falls on and including 25mm thick sand layer with joints filled in with sand, compacted with a vibration compactor:</u>			
123	Paving to toilet areas etc. to falls	m2	350	
124	Fig. 12 kerbs to sides of paving	m	500	
125	15Mpa/19mm unreinforced concrete in haunching	m3	45	
Carried to Collection				R
External works				
R MAHANGE & ASSOCIATES				

Item No		Quantity	Rate	Amount
	<u>STORMWATER CONTROL</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>Earthworks</u>			
126	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc.	m2	350	
127	Excavate in earth below natural, reduced or made up ground level , not exceeding 2m deep, to reduced levels under aprons, paving, etc.	m3	70	
128	Extra over surplus material from excavations and/stock piles on site to the dumping site to be located by the Contractor.	m3	45	
129	Extra over trench or hole for excavations in soft rock	m3	40	
130	Extra over trench or hole for excavations in hard rock	m3	30	
131	Re-compaction of disturbed formation levels, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	350	
132	Treat soil under concrete rain water channels, etc. with an approved insecticide solution at the rate not less than 2 litre per 1m2	m2	350	
	<u>Reinforced Concrete</u>			
	Carried to Collection		R	
	External works			
	R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
133	25Mpa/19mm Mass concrete in V-shaped channel 2000mm wide x 75mm thick with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, with and including one layer of ref.193 mesh reinforcement, laid to falls in panels not exceeding 2,0m long with 12mm bitumen impregnated soft board movement joints with exposed edges raked out for a depth of 10mm and filled with bituminous compound including all necessary excavations and formwork	m	30	
134	Extra for fair open end	No	8	
135	Extra for fair stopped end	No	8	
136	Extra for angle intersection	No	10	
Carried to Collection				R
External works				
R MAHANGE & ASSOCIATES				

Item No	Quantity	Rate	Amount
<u>FENCING AROUND TANK STANDS</u>			
<u>FENCING</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>Welded mesh fence</u>			
<div> <div>Carried to Collection</div> <div>R</div> </div>			
External works			
R MAHANGE & ASSOCIATES			

Item No		Quantity	Rate	Amount
137	<p><u>Panels:</u> 1.80m x 3.0m</p> <p><u>Palings 'DevilFork':</u> 21 palings per panel. 30 x 30 x 2mm steel angle iron paling 1.8m high. Palings are to be inserted and firmly welded to the bearers at 133mm centre to centre. The top of the paling should provide a "Devil fork" effect and the bottom will have a dove tail.</p> <p><u>Fence bearers:</u> 40 x 40 x 2mm angle iron. These are places 300mm from the top of the paling and 300mm from the bottom paling (350mm from ground level). These are to be welded flash with the back of the post</p> <p><u>Painting:</u> All joints must be smoothed off. All faux, rust, grease and loose material to be removed before painting. Apply one coat primer for steel (red oxide), apply one coat universal undercoat for all surfaces, apply one coat gloss enamel. The colour of the gloss enamel paint shall be traffic green unless directed otherwise by the Limpopo Department of Education (not school) No brush painting</p> <p><u>Posts:</u> 76 x 76 x 2mm steel square tubing with closing pyramid caps on top. The post should be at least 2.4m high and 600mm will be planted into the concrete footing in accordance to the engineers design</p>	m	510	
	<p style="text-align: right;">Carried to Collection</p> <p>External works</p> <p>R MAHANGE & ASSOCIATES</p>		R	

Item No		Quantity	Rate	Amount
138	<p><u>Palisade Gates</u></p> <p><u>Sliding Gate:</u> 5m wide x 1.8m high, 40 x 40 x 2mm angle iron palings welded to a 76 x 38 x 2 mm rectangular tubing bearer frame. Plings must be placed at 133 mm apart from each other centre to centre. The gate is to be provided with proper closing and guidance mechanism. The track should be 12mm steel rod welded to a 40 x 40 x 5mm angle iron fixed into a 300 wide x 400 thick x 5m length of the gate</p> <p><u>Gate post:</u> 75mm x 75mm x 2mm steel square tubing post is to be provided on each side of the gate opening with closing pyramid caps on top. The post is to be founded in a concrete footing 450 x 450 x 600 deep. Concrete strength to be 20MPa (minimum) at 28 days</p> <p><u>Painting:</u> All joints must be smoothed off. All faux, rust, grease and loose material to be removed before painting. Apply one coat primer for steel (red oxide), apply one coat universal undercoat for all surfaces, apply one coat gloss enamel. The colour of the gloss enamel paint shall be traffic green unless directed otherwise by the Limpopo Department of Education (not school) No brush painting</p>	No	1	
	<p style="text-align: right;">Carried to Collection</p> <p>External works</p> <p>R MAHANGE & ASSOCIATES</p>		R	

[illegible]

Bill No	FINAL SUMMARY	Page No	Amount
1	P's and G's	34	
2	Alterations	38	
3	M1+D- Enviroloo	66	
4	Gr4 Waterborne	93	
5	External works	120	
6	Provisional Sums	121	
	Sub-total		R
	Contingency sum	%	
	VAT		R
	R MAHANGE & ASSOCIATES		R