

Item No	Description	Quantity	Amount	
	<p><u>SECTION NO. 1</u></p> <p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p>The JBCC Series 2000 Principal Building Agreement (March 2005 edition) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described</p> <p>The JBCC Series 2000 Preliminaries (May 2005 edition) prepared by the Joint Building Contracts Committee for use with the said JBCC Principal Building Agreement 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><u>PREAMBLES FOR TRADES</u></p> <p>The Model Preambles for Trades (2008 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 will be entertained</p> <p>Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles</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 said Model Preambles and in any supplementary preambles</p>			
	<p style="text-align: right;">Carried to Collection</p>	R		
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	<p><u>PRICING OF PRELIMINARIES</u></p> <p>Pricing of Preliminaries:</p> <p>Should the contractor select Option A in terms of clause 10.3 for the purpose of adjustment of these preliminaries, the amount entered in the amount column in these preliminaries is to be divided into one or more of the three categories provided namely Fixed (F), Value Related (V) and Time Related (T)</p> <p><u>SECTION A - PRINCIPAL BUILDING AGREEMENT</u></p> <p><u>Definitions:</u></p> <p>1 Clause 1.0 - Definitions and interpretation</p> <p><u>Objective and preparation:</u></p> <p>2 Clause 2.0 - Offer, acceptance and performance</p> <p>3 Clause 3.0 - Documents</p> <p>4 Clause 4.0 - Design responsibility</p> <p>5 Clause 5.0 - Employer's agents</p> <p>6 Clause 6.0 - Site representative</p> <p>7 Clause 7.0 - Compliance with regulations</p> <p>8 Clause 8.0 - Works risk</p> <p>9 Clause 9.0 - Indemnities</p> <p>10 Clause 10.0 - Works insurances</p> <p>11 Clause 11.0 - Liability insurances</p> <p>12 Clause 12.0 - Effecting insurances</p> <p>13 Clause 13.0 - No clause</p> <p>14 Clause 14.0 - Security</p>	<p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p>	
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	<u>Execution:</u>			
15	Clause 15.0 - Preparation for and execution of the works	Item		
16	Clause 16.0 - Access to the works	Item		
17	Clause 17.0 - Contract instructions	Item		
18	Clause 18.0 - Setting out of the works			
	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	Item		
19	Clause 19.0 - Assignment	Item		
20	Clause 20.0 - Nominated subcontractors	Item		
21	Clause 21.0 - Selected subcontractors	Item		
22	Clause 22.0 - Employer's direct contractors	Item		
23	Clause 23.0 - Contractor's domestic subcontractors	Item		
	<u>Completion:</u>			
24	Clause 24.0 - Practical completion	Item		
25	Clause 25.0 - Works completion	Item		
26	Clause 26.0 - Final completion	Item		
27	Clause 27.0 - Latent defects liability period	Item		
28	Clause 28.0 - Sectional completion	Item		
29	Clause 29.0 - Revision of the date for practical completion			
	The removal and replacement of materials and/or workmanship which 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 value (clause 29.3)	Item		
30	Clause 30.0 - Penalty for noncompletion			
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	Construction period to be 12 months and delay penalties of R 10000.00 per calendar day.	Item		
	<u>Payment:</u>			
31	Clause 31.0 - Interim payment to the contractor			
	Materials and goods stored off site shall not be included in the amount authorised for payment	Item		
32	Clause 32.0 - Adjustment to the contract value			
	Clause 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:			
	"due to no fault of the contractor"			
	All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor.			
	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.	Item		
33	Clause 33.0 - Recovery of expense and loss	Item		
34	Clause 34.0 - Final account and final payment	Item		
35	Clause 35.0 - Payment to other parties	Item		
	<u>Cancellation:</u>			
36	Clause 36.0 - Cancellation by employer - contractor's default	Item		
37	Clause 37.0 - Cancellation by employer - loss and damage	Item		
38	Clause 38.0 - Cancellation by contractor - employer's default	Item		
39	Clause 39.0 - Cancellation - cessation of the works	Item		
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	<u>Dispute:</u>			
40	Clause 40.0 - Dispute settlement	Item		
	<u>Substitute provisions:</u>			
41	Clause 41.0 - State clauses	Item		
	<u>Contract variables:</u>			
42	Clause 42.0 - Pre-tender information			
	Tenderers are referred to the document C1.2 Contract Data for variables pertaining to this contract	Item		
43	Clause 42.0 - Post-tender information			
	The required post-tender information shall be inserted in the agreement after consultation with the contractor	Item		
	<u>SECTION B - PRELIMINARIES</u>			
	<u>Definitions and interpretation:</u>			
44	Clause 1.0 - Definitions and interpretation	Item		
	<u>Documents:</u>			
45	Clause 2.1 - Checking of documents	Item		
46	Clause 2.2 - Provisional bills of quantities	Item		
47	Clause 2.3 - Availability of construction documentation	Item		
48	Clause 2.4 - Interests of agents	Item		
49	Clause 2.5 - Priced documents	Item		
50	Clause 2.6 - Tender submission			
	Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance (C1.1)"	Item		
	<u>The site:</u>			
51	Clause 3.1 - Defined works area			
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Item No	Description	Quantity	Amount
68	Clause 5.2 - Workmanship samples	Item	
69	Clause 5.3 - Shop drawings	Item	
70	Clause 5.4 - Compliance with manufacturers' instructions	Item	
	<u>Temporary works and plant:</u>		
71	Clause 6.1 - Deposits and fees	Item	
72	Clause 6.2 - Enclosure of the works	Item	
73	Clause 6.3 - Advertising	Item	
74	Clause 6.4 - Plant, equipment, sheds and offices	Item	
75	Clause 6.5 - Main noticeboard	Item	
76	Clause 6.6 - Subcontractors' noticeboard	Item	
	<u>Temporary services:</u>		
77	Clause 7.1 - Location	Item	
78	Clause 7.2 - Water	Item	
79	Clause 7.3 - Electricity	Item	
80	Clause 7.4 - Telecommunication facilities	Item	
81	Clause 7.5 - Ablution facilities	Item	
	<u>Prime cost amounts:</u>		
82	Clause 8.1 - Responsibility for prime cost amounts	Item	
	<u>Attendance on nominated/selected subcontractors:</u>		
83	Clause 9.1 - General attendance	Item	
84	Clause 9.2 - Special attendance	Item	
85	Clause 9.3 - Commissioning - fuel, water and electricity	Item	
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Item No	Description	Quantity	Amount	
	<u>Financial aspects:</u>			
86	Clause 10.1 - Statutory taxes, duties and levies			
	Provision is made in the summary of these bills of quantities for the inclusion of Value Added Tax (VAT)	Item		
87	Clause 10.2 - Payment of preliminaries	Item		
88	Clause 10.3 - Adjustment of preliminaries	Item		
89	Clause 10.4 - Payment certificate cash flow	Item		
	<u>General:</u>			
90	Clause 11.1 - Protection of the works	Item		
91	Clause 11.2 - Protection/isolation of existing/sectionally occupied works	Item		
92	Clause 11.3 - Security of the works	Item		
93	Clause 11.4 - Notice before covering work	Item		
94	Clause 11.5 - Disturbance	Item		
95	Clause 11.6 - Environmental disturbance	Item		
96	Clause 11.7 - Works cleaning and clearing	Item		
97	Clause 11.8 - Vermin	Item		
98	Clause 11.9 - Overhand work	Item		
99	Clause 11.10 - Instruction manuals and guarantees	Item		
100	Clause 11.11 - As built information	Item		
101	Clause 11.12 - Tenant installations	Item		
	<u>Schedule of variables:</u>			
102	12.1 - Pre-tender information			
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	Information necessary for elections and completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder. Where no information is given it shall mean that either specific requirements are not required or that the clause is not relevant to this specific contract	Item		
103	12.1.1 - Provisional bills of quantities [clause 2.2]			
	The quantities are provisional - YES	Item		
104	12.1.2 - Availability of construction documentation [clause 2.3]			
	Construction documentation is complete - YES	Item		
105	12.1.3 - Interests of agents [clause 2.4] - NONE	Item		
106	12.1.4 - Defined works area [clause 3.1] - YES			
	The work area will be pointed out by the principal agent to the contractor who will sign written acknowledgement therefore before commencing operations	Item		
107	12.1.5 - Geotechnical investigation [clause 3.2] - YES			
	A Geotechnical Investigation Report is included in this document	Item		
108	12.1.6 - Existing premises occupied [clause 3.4] - YES			
	The school will be in full operation during the work and disruption, dust and noise are to be kept to a minimum. Works areas to be clearly demarcated and fenced off	Item		
109	12.1.7 - Previous work - dimensional accuracy [clause 3.5]			
	The contractor shall, within reasonable period after taking possession of the site, but not exceeding ten (10) percent of the construction period or twenty (20) working days whichever is the lesser, check existing levels, lines, profiles and the like affecting the works and satisfy himself as to the dimensional accuracy of work previously executed. The contractor shall forthwith notify the principal agent and request a contract instruction regarding any dimensional inaccuracy found in work previously executed	Item		
110	12.1.8 - Previous work - defects [clause 3.6]			
	The contractor on becoming aware of a defect in work previously executed shall forthwith notify the principal agent requesting a contract instruction regarding such defect	Item		
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111	12.1.9 - Services - known [clause 3.7] Existing services and points of connection are shown on the site plan or will be pointed out on the site by the principal agent	Item		
112	12.1.10 - Protection of trees [clause 3.9] Only those trees and shrubs indicated as such on the drawings shall be removed or cut back. The remainder of the trees and shrubs shall be left undamaged	Item		
113	12.1.11 - Inspection of adjoining properties [clause 3.11]	Item		
114	12.1.11 - Inspection of adjoining properties [clause 3.11] The contractor shall make his own arrangements with the owners of adjoining properties in order to execute the works	Item		
115	12.1.12 - Enclosure of the works [clause 6.2] The contractor shall erect, maintain and remove on completion, hoardings with gantries, fans, safety screens, barriers, access gates, covered gangways and the like as necessary for the enclosure of the works and elements thereof all for the protection of the public and others	Item		
116	12.1.13 - Offices [clause 6.4.3] 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, suitable 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	Item		
117	12.1.14 - Main noticeboard [clause 6.5] The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines deep blue. All wording shall be inscribed in deep blue painted Helvetica medium lettering. As alternative the notice board as approved by the professional bodies will be allowed. No sub-contractor's individual boards will be allowed on the site	Item		
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118	12.1.15 - Subcontractors' noticeboard [clause 6.6] A noticeboard is required - NO	Item		
119	12.1.16 - Water [clause 7.2] Option A (by contractor) YES Option B (by employer - free of charge) NO Option C (by employer - metered) NO	Item		
120	12.1.17 - Electricity [clause 7.3] Option A (by contractor) YES Option B (by employer - free of charge) NO Option C (by employer - metered) NO	Item		
121	12.1.18 - Telecommunications [clause 7.4] Telephone YES Facsimile NO E-mail YES	Item		
122	12.1.19 - Ablution facilities [clause 7.5] Option A (by contractor) YES Option B (by employer - free of charge) NO	Item		
123	12.1.20 - Protection/isolation of existing/sectionally occupied works [clause 11.2] The contractor shall provide all reasonable temporary measures to protect/isolate the existing and/or section of the occupied works and remove such measures on completion	Item		
124	12.1.21 - Special attendance [clause 9.2] - NO	Item		
125	12.1.22 - Protection of the works [clause 11.1] - YES	Item		
126	12.1.23 - Disturbance [clause 11.5]			
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	<p>The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent</p> <p>The contractor shall execute the works with a minimum of disturbance to adjoining premises, any parts of the works already handed over and the occupants of those premises and/or parts</p>			
127	12.1.24 - Environmental disturbance [clause 11.6] - NO	Item		
128	12.2 - Post-tender information	Item		
	The required post-tender information shall be inserted in the preliminaries after consultation with the contractor	Item		
	<u>SECTION C - SPECIFIC PRELIMINARIES</u>			
	Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item			
	<u>CONTRACT DRAWINGS</u>			
129	<p>The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed</p> <p>Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent</p>	Item		
	<u>GENERAL PREAMBLES</u>			
130	These tender documents "General Specification (PW 371-A) July 2013" and "Particular Specification (PW 371-B) July 2013" which are both obtainable on Public Works website alternatively a copy can be e-mailed on request from the Quantity Surveyor offices, and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used. No claim arising from brevity of description of items fully described in the said Preambles for Trades will be entertained	Item		
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131	<p><u>TRADE NAMES</u></p> <p>Wherever a trade name for any product has been described in the Priced Document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders</p> <p>If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for</p> <p><u>PROPRIETARY BRANDED PRODUCTS</u></p>	Item		
132	<p>The contractor shall take delivery of, handle, store, use apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instruction after consultation with the manufacturer's authorised representative</p> <p><u>CONFIDENTIALITY</u></p>	Item		
133	<p>The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works. No information regarding this project shall be published or disclosed without the prior written consent of the employer</p> <p><u>OVERTIME</u></p>	Item		
134	<p>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 the execution thereof, that cost for such overtime are to be borne by the employer</p> <p><u>AS BUILT DRAWINGS</u></p>	Item		
135	<p>The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records</p>	Item		
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	<u>WARRANTIES FOR MATERIALS AND WORKMANSHIP</u>			
136	Where warranties for materials are called for, the contractor shall obtain a written warranty, 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 warranty shall state that workmanship, materials and installation are warranted 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 to do so. The warranty 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.	Item		
	<u>SITE INSTRUCTIONS</u>			
137	Site instructions issued on site are to be recorded in triplicate in a site instruction book which is to be provided and maintained on site by the contractor	Item		
	<u>NON CESSION OF MONIES</u>			
138	The contractor shall not cede nor assign his rights or claims to any monies due or to become due under this contract	Item		
	<u>IMPORTED MATERIALS AND EQUIPMENT</u>			
139	Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule for Imported Materials and Equipment WCTD-23 to be completed by tenderer)			
	Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable)	Item		
	<u>TESTING OF FLAT ROOF WATERPROOFING FOR WATERTIGHTNESS</u>			
140	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	Item		
	Carried to Collection	R		
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Item No	Description	Quantity	Amount	
	<u>TESTING OF WINDOWS FOR WATERTIGHTNESS</u>			
141	Each window shall be tested for watertightness with water sprayed on by means of a 20mm hosepipe using adequate pressure. If in the opinion of the principal agent, the pressure proves to be inadequate, then the pressure in the hosepipe shall be boosted by means of compressed air or other approved means	Item		
	<u>AUTHORISATION FOR THE TAKING OF PHOTOGRAPHS</u>			
142	The contractor shall obtain prior authorisation from the employer for the making of any sketches or the taking of any photographs of any site, installation, building or civil works belonging to the employer and shall ensure that all personnel, subcontractors and other persons entering the site shall comply with this requirement as well.	Item		
	<u>HIV/AIDS AWARENESS</u>			
143	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 the two items below 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			
	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 of "Section 1: Preliminaries (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	Item		
	<u>AWARENESS CHAMPION</u>			
144	Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification	Item		
	Carried to Collection	R		
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Item No	Description	Quantity	Amount	
	<u>AWARENESS WORKSHOPS</u>			
145	Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification	Item		
	<u>POSTERS, BOOKLETS, VIDEOS, ETC.</u>			
146	Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification	Item		
	<u>ACCESS TO CONDOMS</u>			
147	Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification	Item		
	<u>CO-OPERATION OF CONTRACTOR FOR COST MANAGEMENT</u>			
148	It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The principal agent 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 shall attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures, as necessary, to all subcontractors	Item		
	<u>MONITORING</u>			
149	Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification	Item		
	<u>REPORTING BY CONTRACTOR</u>			
150	The contractor is required to complete the attached Contractor's Monthly Report which is to be submitted together with the contractors payment claim. Payment of the contractor is conditional on this information being accurate and timeously provided	Item		
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151	<p><u>PLANT RECORDS</u></p> <p>At the end of each month 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, currently used on the works</p>	Item		
152	<p><u>LOCAL LABOUR</u></p> <p>Allow for monthly submission of proof of employment of local skilled and unskilled labour to the principal agent.</p> <p>It is a general requirement of this contract that persons normally resident in the locality of the works (local labour) be given preference for employment on the contract. Should adequate and appropriate labour not be available within the locality, other labour may be subject to satisfactory proof being provided that every reasonable endeavour has been made to employ local labour. The contractor shall identify the local community leaders with the purpose of negotiating with them regarding the utilisation of local labour in the construction process. The contractor shall furthermore give preference, wherever possible to the employment of single heads of households, women and youth. The contractor shall, in general, maximise the involvement of the local community.</p> <p>The principal agent shall be empowered to inspect the books and records of the contractor from time to time to ensure that the requirements are met. Should it become apparent that these conditions are not being complied with; the principal agent shall close down the works until the requirements are met. Any work stoppages so occasioned will be for the contractor's account.</p>	Item		
153	<p><u>LOCAL BUILDING MATERIALS</u></p> <p>Preference shall be given to the supply of materials produced or manufactured in the Eastern Cape Province provided that:</p> <p>a) Such materials comply in all respects with the specific requirements of PW371 specification</p> <p>b) The availability of such materials shall not adversely affect the desired progress of the specific works</p> <p>c) The use of such materials shall not constitute grounds for any claim for increased cost in respect thereof</p>	Item		
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	Section No. 1 Preliminaries & General Bill No. 1 Preliminaries			

Item No	Description	Quantity	Amount	
154	<p><u>DISPOSAL SITE-SOLID WASTE/ENVIRONMENTALLY SENSITIVE MATERIALS</u></p> <p>All disposal of solid waste shall be deposited at an approved disposal site to be located by the contractor. All handling of environmentally sensitive materials such as asbestos, etc., is to be carried out by a registered waste disposal specialist and all laws and bylaws are to be appropriate state body will be required and is to be to the principal agent's approval. Written confirmation of appropriate disposal is to be issued to the principal agent</p> <p><u>WAIVER OF LIEN</u></p> <p>The tenderers are notified that he/she shall sign "Waiver of Lien" together with the JBCC Principal Building Agreement Edition 4.1 Code 2101 March 2005</p> <p><u>OCCUPATIONAL HEALTH AND SAFETY ACT</u></p> <p>The contractor shall comply with all the requirements set out in the Health and Safety Specification for Construction Work as contained within these tender documents and 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.</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 and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.</p> <p>In addition but not limited to the contractor shall:</p> <ul style="list-style-type: none"> - Comply with the health and safety specification for the works - Prepare and agree with the health and safety consultant the health and safety plan for the works <p style="text-align: right;">Carried to Collection</p> <p>Section No. 1 Preliminaries & General Bill No. 1 Preliminaries</p>	Item		
155		Item		
156				
		R		

Item No	Description	Quantity	Amount	
157	<ul style="list-style-type: none"> - Co-operate with the health and safety consultant in all respects - Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification - Conform to the conditions contained in the employer's health and safety specification <p><u>OCCUPATIONAL HEALTH AND SAFETY MEASURES IN WORKPLACES</u> <u>COVID-19 (C19 OHS)</u></p> <p>The contractor shall comply with all the requirements set out in the COVID-19 Health and Safety Baseline Specification as contained within these tender documents and 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) in particular Hazardous Biological Agents Regulations governing workplaces in relation to Coronavirus Disease 2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in Workplace COVID-19 (C19 OHS), 2020.</p> <p>It is required of the contractor to thoroughly study the COVID-19 Health and Safety Baseline Specification and Occupational Health and Safety Act, 1993 (Act No 85 of 1993) in particular Hazardous Biological Agents Regulations governing workplaces in relation to Coronavirus Disease 2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in Workplace COVID-19 (C19 OHS), 2020 that must be read together with and is deemed to be incorporated under this Section of the bills of quantities.</p> <p>The contractor must take note that compliance with the COVID-19 Health and Safety Baseline Specification as contained within these tender documents and 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) in particular Hazardous Biological Agents Regulations governing workplaces in relation to Coronavirus Disease 2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in Workplace COVID-19 (C19 OHS), 2020 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 COVID-19 Health and Safety Baseline Specification and Occupational Health and Safety Act in particular Hazardous Biological Agents Regulations governing workplaces in relation to Coronavirus Disease 2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in Workplace COVID-19 (C19 OHS), 2020 is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.</p>	Item		
		Item		
		R		
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 1 Preliminaries & General Bill No. 1 Preliminaries</p>			

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 1</u></p> <p><u>ALTERATIONS AND DEMOLITIONS</u></p> <p><u>View site</u></p> <p>Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials salvageable from the alterations. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained Explosives</p> <p>No explosives whatsoever may be used for alteration purposes unless otherwise stated</p> <p><u>General</u></p> <p>The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent Doors, fanlights, windows, fittings, frames, linings, etc which are to remain the property of the employer shall be carefully taken out, temporarily stored, transported over a distance of approximately 50km to store and handed over to the employer</p>					
	<p style="text-align: right;">Carried to Collection</p>			R		
	<p>Section No. 2</p> <p>Alterations & Demolitions</p> <p>Bill No. 1</p> <p>Alterations & Demolitions</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Doors, fanlights, windows, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc</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>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)</p> <p><u>TEMPORARY BARRICADES, SCREENS, ETC</u></p> <p><u>Temporary barricades, screens, roofs, etc including removal</u></p> <p>1 Kwik Klik hoarding system or similar approved min 1.8m high, including all posts etc. to be utilised for the full period of the project</p> <p>2 Temporary 6m swing gate</p> <p><u>Decanting Area 12 months Temporary rental including transportation</u></p> <p>3 Temporary facility for classes</p> <p>4 Temporary Admin facility</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 2 Alterations & Demolitions Bill No. 1 Alterations & Demolitions</p>					
		m	593			
		No	1			
		No	16			
		No	1			
					R	

Item No	Description	Unit	Quantity	Rate	Amount	
5	Temporary Grade R classrooms	No	2			
6	Temporary toilet facility for students and teachers	No	4			
	<u>REMOVAL OF EXISTING WORK</u>					
	<u>Demolish and/or removing complete structures</u>					
7	Demolish and remove existing store room complete	m2	32			
8	Removing existing mobile classes	No	4			
	<u>Breaking up and removing reinforced concrete, including cutting off and removing reinforcement</u>					
9	100mm Thick surface beds	m2	84			
	<u>Breaking down and removing brickwork etc</u>					
10	Half brick walls	m2	116			
11	One brick walls	m2	18			
	<u>Existing plastered walls</u>					
12	Plasterwork to be chipped off in full sections where necessary and replastered smooth to match existing finish (paintwork measured elsewhere)	m2	10			
	<u>Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)</u>					
13	Timber single door and frame not exceeding 2,5m ²	No	10			
	<u>Hacking up/off and removing floor coverings including removing mortar bed or adhesive from concrete or brickwork if applicable and preparing surfaces, including levelling, for new screed finish</u>					
14	Removal of Floor finishes + new screed	m2	1 070			
15	Repair concrete floor cracks as per engineers specs	m	20			
	Carried to Collection				R	
	Section No. 2					
	Alterations & Demolitions					
	Bill No. 1					
	Alterations & Demolitions					

24.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>CUTTING THROUGH FLOORS AND CEILINGS</u>					
	<u>Cutting through:</u>					
24	150mm Thick unreinforced concrete surface bed for 700mm wide concrete wall footings and making good concrete on both sides of new 230 brick walls (making good floor finishes elsewhere)	m	62			
	<u>BUILDING UP OPENINGS</u>					
	<u>Brickwork in NFP bricks in class II mortar in building up openings</u>					
25	Half brick walls	m2	12			
26	One brick walls	m2	16			
	<u>Face bricks pointed with flush recessed horizontal and vertical joints to match existing</u>					
27	Extra over brickwork for face brickwork in patches	m2	10			
28	Cutting toothings and bonding new face brickwork to existing	m	24			
	<u>Sundries</u>					
29	Cutting toothings and bonding new brickwork to existing	m2	30			
	<u>CLEANING AND PREPERATION</u>					
	<u>Walls</u>					
30	Cleaning existing facebrick walls including scrubbing down and removing efflorescent	m2	984			
	<u>Roller Course lintel</u>					
31	Cleaning existing facebrick walls including scrubbing down and removing efflorescent	m	58			
	Carried to Collection				R	
	Section No. 2 Alterations & Demolitions Bill No. 1 Alterations & Demolitions					

Item No	Description	Unit	Quantity	Rate	Amount	
32	<p><u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u></p> <p>Window cills</p> <p><u>On Metal work</u></p> <p><u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u></p>	m	63			
33	<p>Door frames</p> <p><u>Existing timber trusses</u></p>	No	6			
34	Sand down existing timber trusses (measured on plan)	m2	1 001			
35	Existing timber skirting to be removed, sanded down with abrasive paper leaving surface clean, dry and dust free. ready for painting	m	417			
36	<p><u>Existing plastered walls</u></p> <p>Where required (more than general painting prep work) surfaces to be brushed down, clean and free from blemishes</p>	m2	1 272			
Carried to Collection					R	
Section No. 2						
Alterations & Demolitions						
Bill No. 1						
Alterations & Demolitions						

[illegible]

28.

Item No	Description	Unit	Quantity	Rate	Amount
	<u>SKIRTINGS</u>				
	<u>Timber Skirting, size 18 x 100mm plugged and screwed to wall surface.</u>				
1	18mm x 100mm High skirtings	m	96		
	<u>EAVES, VERGES, ETC</u>				
	<u>Sawn softwood</u>				
2	250 x 20mm Fascia's	m	68		
	<u>JOINERY SUNDRIES</u>				
	<u>White boards</u>				
3	Classroom white boards not exceeding 8m ² with 38 x 38mm Grounds, full size magnetic porcelain with anodized trim and including tray and trackable map rail, fixed to plastered walls	No	15		
	Carried to Collection			R	
	Section No. 3 Existing Classroom Refurbishment Bill No. 1 Carpentry and Joinery				

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 3</u></p> <p><u>BILL NO. 2</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>NAILED-UP CEILINGS</u></p> <p><u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine branderling at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heards. Plus Isover 115mm thick Aerolite thermal ceiling insulation</u></p>				
1	Ceilings nailed-up not exceeding 1m below roof trusses	m2	729		
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 3 Existing Classroom Refurbishment Bill No. 2 Ceilings, Partitions and Access Flooring</p>			R	

R

[illegible]

34.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 3</u> <u>BILL NO. 4</u> <u>GLAZING</u> <u>Float glass</u> The term "float glass" is used for monolithic annealed glass <u>Laminated glass</u> <u>GLAZING TO STEEL WITH PUTTY</u> <u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than 0.5m². All to comply with National building regulations see also glazing preambles for minimum standards.</u>					
1	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>Windows to be glazed to SANS min. standards - 6mm safety glass for all panels lower than 900mm above FFL All to comply with National building regulations see also glazing preambles for minimum standards.</u>	m2	220			
2	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u> <u>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges, fixed with double sided adhesive tape and silicone</u>	m2	2			
3	450mm x 600mm High quality mirror complete with bevelled edges	No	2			
	<p style="text-align: right;">Carried Forward to Summary of Section No. 3</p> Section No. 3 Existing Classroom Refurbishment Bill No. 4 Glazing			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 3</u></p> <p><u>BILL NO. 5</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 3</p> <p>Existing Classroom Refurbishment</p> <p>Bill No. 5</p> <p>Paintwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	1 244			
2	On external walls	m2	10			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
3	On ceilings	m2	729			
4	On external ceilings	m2	225			
5	On Cornice not exceeding 300mm girth	m	418			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
6	On door frames	m2	3			
7	On window frames	m2	35			
	<u>Contractors Gloss Enamel (colour to be selected) to new interior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
8	On door frames	m2	8			
9	On doors	m2	10			
	Carried to Collection				R	
	Section No. 3 Existing Classroom Refurbishment Bill No. 5 Paintwork					

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40.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 4</u>					
	<u>BILL NO. 1</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	59			
2	Side cladding not exceeding 250mm	m2	18			
3	Ridge or Valley flashing	m	6			
4	Ridge Closer	m	9			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
5	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	47			
	Carried Forward to Summary of Section No. 4					
	Section No. 4					
	Existing Ablutions					
	Bill No. 1					
	Roof coverings, Claddings, etc					

42.

43.

44.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 3</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>NAILED-UP CEILINGS</u></p> <p><u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine branderling at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heards. Plus Isover 115mm thick Aerolite thermal ceiling insulation</u></p>				
1	Ceilings nailed-up not exceeding 1m below roof trusses	m2	45		
	Carried to Collection			R	
	Section No. 4 Existing Ablutions Bill No. 3 Ceilings, Partitions and Access Flooring				

R

47.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 4</u></p> <p><u>FLOOR COVERINGS, WALL LININGS, ETC.</u></p> <p><u>Fixing</u></p> <p>Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc FLOOR COVERINGS</p> <p><u>Fully flexible vinyl floor tiles, size 300 x 300 x 2.5mm thick, manufactured in accordance with SANS 786:2000, laid in adhesive spread with a trowel using Leveller when required and rolled with 68kg three section metal roller on completion.</u></p>					
1	<p>On new screeded floors</p> <p><u>Fully flexible vinyl floor tiles, 2.5mm thick, manufactured in accordance with SANS 786:2000, laid in adhesive spread with a trowel using Leveller when required and rolled with 68kg three section metal roller on completion.</u></p>	m2	10			
2	100mm High skirting	m	10			
	<p>Carried Forward to Summary of Section No. 4</p> <p>Section No. 4</p> <p>Existing Ablutions</p> <p>Bill No. 4</p> <p>Floor coverings, Wall Linings, etc</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 5</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration HINGES, BOLTS, ETC</p> <p><u>HINGES, BOLTS, ETC</u></p> <p><u>Manufactured by Dorma or equally approved</u></p>					
1	<p>Stainless steel indicator bolts with Stainless Steel finish. 2 x two ball bearing butt hinge with Stainless Steel finish. Stainless Steel 152 x 76mm push plate, size 152 x 76mm. Wall mounted door stop</p> <p><u>PUSH PLATES AND KICK PLATES</u></p> <p><u>2mm Thick anodised aluminium plates countersunk screwed along edges at not exceeding 200mm centres</u></p>	No	8			
2	<p>813 x 250mm Kick plate</p> <p><u>DOOR CLOSERS</u></p> <p><u>Manufactured by Dorma or equally approved</u></p>	No	8			
3	<p>Door closer</p>	No	2			
	<p>Carried to Collection</p>				R	
	<p>Section No. 4 Existing Ablutions Bill No. 5 Ironmongery</p>					

Item No	Description	Unit	Quantity	Rate	Amount
	BATHROOM FITTINGS <u>Manufactured by Franke or equally approved</u>				
4	San 009 - WASTE BIN Waste container - 1,25mm thick 18/10 satin stainless steel perforated waste containers, size 380x410x205mm deep, with 180 degree radius front and perforated fascia pattern, waste bin capacity of 23 litres, with lock, plugged and screwed to the wall with stainless steel screws	No	8		
5	San 007 - SOAP DISPENSER Standard stainless steel wall mounted soap dispenser	No	6		
	Carried to Collection			R	
	Section No. 4 Existing Ablutions Bill No. 5 Ironmongery				

51.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 6</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 4</p> <p>Existing Ablutions</p> <p>Bill No. 6</p> <p>Plastering</p>					

53.

55.

Item No	Description	Unit	Quantity	Rate	Amount
4	<p>FLOOR TILING</p> <p>Ceramic tiles size 300 x 300mm, fixed to internal wall plaster backing with tile adhesive mixed with Bond in lieu of water with joints continuous in both directions and grouted</p> <p>On floors and landings</p>	m2	45		
	Carried to Collection			R	
	Section No. 4 Existing Ablutions Bill No. 7 Tiling				

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 8</u></p> <p><u>PLUMBING & DRAINAGE (PROVISIONAL)</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site French drains</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p>				
	Carried to Collection			R	
	Section No. 4				
	Existing Ablutions				
	Bill No. 8				
	Plumbing & Drainage (Provisional)				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>PVC-U pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings Polypropylene pipes</p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p>					
	Carried to Collection				R	
	Section No. 4					
	Existing Ablutions					
	Bill No. 8					
	Plumbing & Drainage (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p>					
	Carried to Collection				R	
	Section No. 4					
	Existing Ablutions					
	Bill No. 8					
	Plumbing & Drainage (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>General</u></p> <p>Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately) Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site</p> <p>Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)</p> <p>Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)</p> <p><u>SANITARYWARE</u></p> <p>1 Contour 21 close coupled raised height WC pan, 75cm projection with floor fixing kit. Contour 21 close coupled delay fill, syphon cistern 4.5 litre single flush for 75cm projection pan, secure cover fastener, no lever. seat and cover, top fixing hinges. Spatula cistern lever close coupled. Plumbing: 20mm Brushed chrome Econoflush front access junior concealed toilet flush master with integral shut-off valve, box stainless steel faceplate and chrome plated pushbutton assembly (includes flush pipes, elbow and pan connector).</p> <p>2 Vaal Sanitaryware or equally approved vitreous china 510mm x 405mm rounded Hibiscus basin with one or two tap hole, including integrated overflow and chain stay hole. Bolted to wall with 2x 10mm bolts. Basin Mixer single lever with pop up waste. 1_ 2" BSP female inlets. SANS 1480\ Paraplegic Toilets to be fitted with two MEDICAL Pillar elbow action.1/2" BSP MI SANS 226 TYPE 2.</p>					
		No	8			
		No	6			
	Carried to Collection				R	
	Section No. 4 Existing Ablutions Bill No. 8 Plumbing & Drainage (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
3	San 011 - URINAL SANITARYWARE 565 x 275 x 310mm White vitreous china wall mounted back inlet urinal including 38mm chromium plated domical grating and chromium plated back inlet spreader and urinal division fixed with and including fixing screws and hanger brackets.	No	3			
4	SANITARYWARE vitreous china Urinal division, complete with fixing screw and hanger bracket.	No	2			
	<u>SOIL DRAINAGE</u>					
	<u>All pipework includes fittings, joints etc. calculated by specialist pricing BOQ</u>					
5	50mm Waste pipe	m	23			
6	110mm pvc pipe laid to min falls 1:60. Pipes beneath slab to be encased in concrete	m	11			
7	T junction with inspection eye	No	8			
8	Brick sewer manhole	No	2			
9	Gulley	No	2			
10	Stub/vent valve	No	8			
11	Floor drain	No	2			
12	Testing		Item			
	<u>WATER SUPPLY</u>					
	<u>Class 1 copper pipes are recommended for high quality installations</u>					
13	22mm Pipes	m	11			
14	22mm Pipes chased into brickwork including brown paper lagging	m	23			
15	Testing water pipe system		Item			
	Carried to Collection				R	
	Section No. 4 Existing Ablutions Bill No. 8 Plumbing & Drainage (Provisional)					

<div>Section No. 4</div> <div>Bill No. 8</div> <div>Plumbing & Drainage (Provisional)</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 4</div> <div>Section No. 4</div> <div>Existing Ablutions</div> <div>Bill No. 8</div> <div>Plumbing & Drainage (Provisional)</div>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 9</u></p> <p><u>GLAZING</u></p> <p><u>Float glass</u></p> <p>The term "float glass" is used for monolithic annealed glass</p> <p><u>Laminated glass</u></p> <p><u>GLAZING TO STEEL WITH PUTTY</u></p> <p><u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than 0.5m² coated with monolithic glass All to comply with National building regulations see also glazing preambles for minimum standards.</u></p>					
1	<p>Panes exceeding 0,1m² and not exceeding 0,5m²</p> <p><u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u></p> <p><u>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges, fixed with double sided adhesive tape and silicone</u></p>	m2	6			
2	<p>450mm x 600mm High quality mirror complete with bevelled edges</p>	No	6			
	<p>Carried Forward to Summary of Section No. 4</p> <p>Section No. 4</p> <p>Existing Ablutions</p> <p>Bill No. 9</p> <p>Glazing</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 10</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p><u>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</u></p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 4</p> <p>Existing Ablutions</p> <p>Bill No. 10</p> <p>Paintwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	23			
2	On external walls	m2	20			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
3	On ceilings	m2	45			
4	On cornice not exceeding 300mm girth	m	28			
	<u>ON FASCIA BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new Fascia Board. One coat Primer and finish with two coats Acrylic PVA</u>					
5	On fascia board	m2	10			
	<u>ON NUTEC CEILING</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new Nutec ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
6	On external ceiling	m2	15			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
7	On door frames	m2	2			
	Carried to Collection				R	
	Section No. 4 Existing Ablutions Bill No. 10 Paintwork					

R

68.

Bill No	<u>SECTION SUMMARY - Existing Ablutions</u>	Page No		Amount	
1	Roof coverings, Claddings, etc	41			
2	Carpentry and Joinery	44			
3	Ceilings, Partitions and Access Flooring	47			
4	Floor coverings, Wall Linings, etc	48			
5	Ironmongery	51			
6	Plastering	54			
7	Tiling	57			
8	Plumbing & Drainage (Provisional)	63			
9	Glazing	64			
10	Paintwork	68			
	<p style="text-align: right;">Carried to Final Summary</p> <p>Section No. 4 Existing Ablutions</p>		R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p>The following are typical examples of descriptions of "nature of ground" Nature of ground</p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p>			R		
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 1</p> <p>Earthworks (Provisional)</p>					

71.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	43			
	<u>Keeping excavations free of water</u>					
9	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
10	In prescribed stock piles on site to trenches and holes	m3	110			
	<u>Earthfilling of 150mm thick G7 natural gravel compacted to 95% Mod Asstho Density</u>					
11	Under surface beds in 150mm layer	m3	60			
	<u>Compaction of surfaces</u>					
12	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density TESTS	m2	398			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	1			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	1			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 1 Earthworks (Provisional)					

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 2</p> <p>Concrete, Formwork & Reinforcement</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15MPa/19mm concrete</u></p>					
1	Surface blinding under footings and bases	m3	9			
	<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p>					
2	Bases	m3	3			
3	Strip footings	m3	16			
4	Ramps / walkways	m3	3			
	<p><u>REINFORCED CONCRETE CAST IN FORMWORK</u></p> <p><u>25MPa/19mm concrete</u></p>					
5	Surface beds on waterproofing (including thickenings)	m3	38			
6	Ramps	m3	3			
	Carried to Collection				R	
	Section No. 5					
	Admin Block					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount	
7	Slabs including beams and inverted beams	m3	4			
8	Ring Beams or Isolated beams	m3	3			
	<u>TEST CUBES</u>					
9	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	16			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
10	Surface beds, slabs, etc to falls	m2	84			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>					
11	Surface beds, slabs, etc to falls and currents	m2	314			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
12	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	300			
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Smooth formwork to sides and soffits</u>					
13	Beams propped up exceeding 1.5m and not exceeding 3m high including section propped on sloping surfaces	m2	32			
14	Edges, risers, ends and reveals not exceeding 300mm high or wide	m2	198			
	<u>PERMANENT FORMWORK</u>					
15	Specilaist permanent BondLoc formwork to soffit of slabs	m2	33			
	Carried to Collection				R	
	Section No. 5					
	Admin Block					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
16	Not exceeding 300mm high to edges of surface beds	m	520			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
17	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	101			
18	3 x 40mm Saw-cut joints in top of concrete	m	105			
	<u>Horizontal construction joints through concrete including thick cement slurry to one face</u>					
19	Surface beds not exceeding 300mmm thick as per engineers details	m	318			
	<u>REINFORCEMENT</u>					
	<u>Mild steel reinforcement to structural concrete work</u>					
20	Y10mm Diameter bars	t	1.00			
21	Y8mm Diameter bars	t	1.00			
	<u>High tensile steel dowel bars</u>					
22	10mm Diameter dowel bar 400mm long with one end embedded 200mm deep in side of concrete and other end cast in new concrete, including filling with ABE epidermix or similar approved	No	276			
	<u>Fabric reinforcement</u>					
23	Type 193 fabric reinforcement in concrete surface beds etc	m2	398			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 2 Concrete, Formwork & Reinforcement					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 3</p> <p>Masonry</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p> <p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>					
1	300mm Hollow walls of two half brick skins	m2	179			
2	330 x 330mm Brick square brick piers in foundations at 680mm high	No	13			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SUPERSTRUCTURE</u>					
	<u>Brickwork of NFP bricks in class II mortar in load bearing walls</u>					
3	Half brick walls	m2	186			
4	Half brick walls in beamfilling	m2	10			
5	One brick walls	m2	472			
6	330 x 330mm Brick square brick piers in height 3.34m	No	13			
	<u>Steel bar reinforcement</u>					
7	8mm Diameter mild steel bars built in horizontally	t	2.00			
8	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>					
9	75 x 110mm Lintels in lengths not exceeding 3m	m	10			
10	75 x 220mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10			
11	220 x 110mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	10			
	<u>Turning pieces to lintels etc</u>					
12	220mm Wide turning pieces	m	250			
	<u>Air bricks etc</u>					
13	229 x 152mm Terracotta vermin proof air brick	No	4			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
14	Extra over brickwork for face brickwork for one side of one brick wall	m2	323			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 3 Masonry					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 4</u></p> <p><u>WATERPROOFING</u></p> <p><u>Waterproofing</u></p> <p>Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><u>DAMPPROOFING OF WALLS AND FLOORS</u></p> <p><u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u></p>					
1	<p>In walls</p> <p><u>One layer 250 micron green polyethylene waterproof sheeting SANS 952-1985 type C sealed at laps with PVC self-adhesive tape</u></p>	m2	28			
2	Under surface beds	m2	398			
3	Vertically between walls	m2	10			
4	<p><u>Mastic or silicone sealing compound including backing cord, bond breaker, primer, etc</u></p> <p>6 x 10mm In saw cut joints in floors</p>	m	98			
	<p>Carried Forward to Summary of Section No. 5</p> <p>Section No. 5 Admin Block Bill No. 4 Waterproofing</p>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 5</u>					
	<u>BILL NO. 5</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	459			
2	Side cladding not exceeding 250mm high	m2	17			
3	gable end side cladding not exceeding 250mm	m2	9			
4	Ridge or Valley flashing	m	55			
5	Ridge Closer	m	55			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
6	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	310			
7	25mm Underfloor insulation	m2	310			
	Carried Forward to Summary of Section No. 5				R	
	Section No. 5					
	Admin Block					
	Bill No. 5					
	Roof coverings, Claddings, etc					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 6</u></p> <p><u>CARPENTRY & JOINERY</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Decorative thermosetting plastic laminate covering</u></p> <p>Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Trusses are at maximum 750mm centres</p> <p>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses Roof covering is type on purlins</p> <p>Ceiling is 6mm sheeting edge flush plastered on 38 x 38mm brandering</p> <p>References given in descriptions refer to the respective types of trusses detailed on the architect's/engineer's drawings numbered C100 RevA annexed to these bills of quantities accompanying these bills of quantities for tender purposes Dimensions in descriptions of trusses are nominal and actual measurements are to be obtained from the architect/engineer and/or taken on site before design or fabrication commences</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 5 Admin Block Bill No. 6 Carpentry and Joinery</p>				
				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 398m2 overall on plan x 1.893mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	87			
	<u>SKIRTINGS</u>					
	<u>Timber Skirting, size 18 x 100mm plugged and screwed to wall surface.</u>					
3	18mm x 100mm High skirtings	m	221			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
4	78 x 78mm Branders	m	560			
5	250 x 20mm Barge boards	m	34			
6	250 x 20mm Fascias	m	68			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
	<u>DOORS ETC</u>					
7	813 x 2032 x 40mm Solid core flush masonite panel door	No	15			
8	762 x 2032 x 40mm Solid core flush masonite panel door	No	1			
9	Double leaf small pane steel french doors (Code: DDA), overall size 1511 x 2134mm high	No	2			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 6 Carpentry and Joinery					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>WINDOWS</u>					
	<u>Standard hardboard</u>					
10	10mm Duct covers in 500mm widths, fixed at 250mm centres along edges with chromium plated dome headed screws in cup washers	m2	27			
	<u>JOINERY SUNDRIES</u>					
	<u>Wrought Meranti or simialr</u>					
11	Standard 20mm Pinning or notice board 1500 x 1500mm high glued to backboard fixed with timber 38 x 38mm Grounds, glued too plastered walls	No	2			
	<u>White boards</u>					
12	Classroom white boards boards not exceeding 8m2 with 38 x38mm Grounds, full size magnetic porcelain with anodized trim and including tray and tackable map rail, fixed to plastered walls	No	1			
	<u>Fire extuinguisher boards</u>					
13	20mm Backboards for 4,5kg fire extinguishers plugged to wall	No	2			
	<u>CUPBOARDS AND COUNTER TOP JOINERY TO KITCHENS, BEDROOMS, TOPS ETC</u>					
	<u>Cupboards and shelving etc.</u>					
	<u>Refer to Sediko - Sheet - DBSA-JBT-S1-ARCH-DWG100 New Admin - Plan & Sections</u>					
14	Wall cupboard built into opening for DB 0.931 x 2.100mm high with frame and hinged door	No	1			
15	Slatted shelving, seats, etc of 25 x 350 mm deep slats at 50mm centres	No	1			
16	Slatted seats, etc of 35 x 450mm deep slats at 45mm centres, screwed to steel framing including holes	No	1			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 6 Carpentry and Joinery					

Item No	Description	Unit	Quantity	Rate	Amount
	<u>Counter Tops</u> Refer to Sediko - Sheet - <u>DBSA-JBT-S1-ARCH-DWG100 New Admin - Plan & Sections</u>				
17	Solid worktop counter fixed to wall with brackets or similar including holes	No	1		
18	Counter top as per design detail of maximum depth 600mm and minumum 30mm thickness, fitted to wall on brakcets - as per architecture details	No	1		
19	Kitchen counter unit as per design detail drawing, including granite counter top cupboard, shelves, cut outs etc. complete	No	1		
	Carried to Collection			R	
	Section No. 5 Admin Block Bill No. 6 Carpentry and Joinery				

<div>Section No. 5</div> <div>Bill No. 6</div> <div>Carpentry and Joinery</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 5</div> <div>Section No. 5</div> <div>Admin Block</div> <div>Bill No. 6</div> <div>Carpentry and Joinery</div>					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 7</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>NAILED-UP CEILINGS</u></p> <p><u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine branderling at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heards. Plus Isover 115mm thick Aerolite thermal ceiling insulation</u></p>				
1	Ceilings nailed-up not exceeding 1m below roof trusses	m2	262		
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 5 Admin Block Bill No. 7 Ceilings, Partitions and Access Flooring</p>			R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine brander at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heads. Plus Isover 115mm thick Aerolite thermal ceiling insulation. Timber brander shall be suitably fixed to the tie beam/joist.</u></p>					
2	External nailed-up ceiling	m2	70			
	<u>Cornice, perimeter trims, etc to ceiling</u>					
	<u>Gypsum cornice, 75 x 75mm high</u>					
3	Cornice	m	266			
	<u>PARTITIONS</u>					
	<u>Partition System comprising 16mm thick particle board panels, laminated both sides with Melamine, edged all round with 22 x 22mm lipped channel and fixed into position by means of full height vertical aluminium receiving channels plugged to walls and fixed to pilasters. Partitions are to be supported by a continuous 25 x 25mm aluminium transom section over doors and supplied with standard ironmongery comprising indicator bolts, hat and coat hooks, doors stops, toilet roll holders and rubber buffers. All exposed aluminium sections are to be natural anodised</u>					
4	Partitions 2000mm high	m	6			
5	Extra over partions for T junctions	No	2			
6	Extra over partions for vertical abutments	No	4			
7	Extra over partion for partition door 762 x 1762mm high framed including standard ironmongery	No	4			
	Carried to Collection				R	
	Section No. 5					
	Admin Block					
	Bill No. 7					
	Ceilings, Partitions and Access Flooring					

94.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 9</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration</p> <p><u>HINGES, BOLTS, ETC</u></p> <p><u>Manufactured by Dorma or equally approved</u></p>					
1	Stainless Steel floor mounted door stop size 24 x 45mm, 2 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	6			
2	Stainless Steel floor mounted door stop size 24 x 45mm, 2 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	9			
3	Stainless Steel floor mounted door stop, size 24 x 45mm, 4 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	2			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 9 Ironmongery					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PUSH PLATES AND KICK PLATES</u>					
	<u>4mm Thick anodised aluminium plates countersunk screwed along edges at not exceeding 200mm centres</u>					
4	813 x 250mm Kick plate	No	9			
	<u>DOOR CLOSERS</u>					
	<u>Manufactured by "Dorma</u>					
5	Door closer	No	3			
	<u>BATHROOM FITTINGS</u>					
	<u>Manufactured by Dorma</u>					
6	San 002 - PARAPLEGIC LEFT HAND DOG RAIL Standard 300 x 300 X300 x 80mm Projecting dog leg side rail as by Stainless Steel Design	No	1			
7	San 004 - PARAPLEGIC BACK GRAB RAIL Standard 800 long x 150mm projecting straight disabled rail as by stainless steel design.	No	1			
8	San 009 - WASTE BIN Waste container - 1,25mm thick 18/10 satin stainless steel perforated waste containers, size 380x410x205mm deep, with 180 degree radius front and perforated facia pattern, waste bin capacity of 23 litres, with lock, plugged and screwed to the wall with stainless steel screws	No	7			
9	San 010 - ROBE HOOK - chrome plated robe hook size 89 x 57mm wide, plugged and screwed to wall	No	7			
	<u>STEEL LOCKERS</u>					
	<u>Steel lockers with standard baked enamel finish</u>					
10	Set of steel lockers as per architectural details and design	No	1			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 9 Ironmongery					

97.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 10</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work: 1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 10</p> <p>Metalwork</p>					

99.

Item No	Description	Unit	Quantity	Rate	Amount	
5	Top hung standard steel window, finished in Grey oxide primer, size 533mm x 654mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant	No	8			
6	Top hung standard steel window, finished in Grey oxide primer, size 1022mm x 654mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant	No	3			
	<u>Recordroom/strongroom doors etc suitable for 230mm walls fixed to brickwork or concrete</u>					
7	Chubb or similar Approved SANS 949:2005 approved left hand opening category 2 heavy duty strong room door and frame constructed of 20mm steel plate. All to fit wall opening of 1930 x 850mm wide. Mass 450kg. Fitted with one-way moving boltwork with 3 x 50mm round bolts with rebate on hinged side with 2 x 7-lever keylocks, 1 x combination lock, inner release mechanism and floor mounted door stop,	No	1			
8	Cranked Strong room vents	No	3			
	Carried to Collection				R	
	Section No. 5 Admin Block Bill No. 10 Metalwork					

101.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 11</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 11</p> <p>Plastering</p>					

103.

Item No	Description	Unit	Quantity	Rate	Amount
4	<u>EXTERNAL PLASTER</u> <u>Plaster mix for rough brick walls, composed of 1 part : and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls, in accordance with SANS 50197-1</u>	m2	45		
	On walls				
	Carried to Collection			R	
	Section No. 5 Admin Block Bill No. 11 Plastering				

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 12</u></p> <p><u>TILING</u></p> <p><u>Patterns</u></p> <p>Unless otherwise described, tiles shall be laid with continuous joints in both directions</p> <p><u>Fixing</u></p> <p>Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding</p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat</p> <p>Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles</p> <p><u>WALL TILING</u></p> <p><u>Ceramic tiles size 100 x 200mm, fixed to internal wall plaster backing with tile adhesive mixed with Bond in lieu of water with joints continuous in both directions and grouted</u></p>					
1	On walls	m2	68			
	<p><u>FLOOR TILING</u></p> <p><u>Ceramic tiles size 300 x 300mm, fixed to internal wall plaster backing with tile adhesive mixed with Bond in lieu of water with joints continuous in both directions and grouted</u></p>					
2	On floors and landings	m2	29			
	<p>Carried Forward to Summary of Section No. 5</p> <p>Section No. 5 Admin Block Bill No. 12 Tiling</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 13</u></p> <p><u>PLUMBING & DRAINAGE (PROVISIONAL)</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site French drains</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p>				
	<p style="text-align: right;">Carried to Collection</p>			R	
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>PVC-U pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings Polypropylene pipes</p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p>					
	Carried to Collection				R	
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>General</u> Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately) Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately) Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured) <u>As-built drawings</u> <u>SANITARYWARE</u>					
1	San 001 - Contour 21 close coupled raised height WC pan, 75cm projection with floor fixing kit. Contour 21 close coupled delay fill, syphon cistern 4.5 litre single flush for 75cm projection pan, secure cover fastener, no lever. seat and cover, top fixing hinges. Spatula cistern lever close coupled. Plumbing: 20mm Brushed chrome front access junior concealed toilet flush master with integral shut-off valve, box stainless steel faceplate and chrome plated pushbutton assembly (includes flush pipes, elbow and pan connector).	No	6			
2	Sanitaryware Paraplegic vitreous china washdown suite comprising 90Ø outlet open rim pan flushing valve (elsewhere) including lid and fitments with heavy duty seat. Plumbing: 20mm Brushed chrome Econoflush front access junior concealed toilet flush master with integral shut-off valve, box stainless steel faceplate and chrome plated pushbutton assembly (includes flush pipes, elbow and pan connector).	No	1			
Carried to Collection				R		
Section No. 5 Admin Block Bill No. 13 Plumbing & Drainage (Provisional)						

Item No	Description	Unit	Quantity	Rate	Amount	
3	San 013 - WASH HAND BASIN Sanitaryware 510mm x 405mm Hibiscus vitreous china lavatory basin with two tap holes, including integrated overflow, supported on a Classic floor mounted pedestal. White 9 Bolted to wall with 2x 10mm bolts. Basin Mixer single lever with pop up waste. 1_2 " BSP female inlets. SANS 1480	No	5			
4	Vaal Sanitary ware or equally approved ceramic fireclay 585 x 435 mm. "Hygia" hospital basin, including ¼ turns wrist action mixer, c.p. waste , overflow tube. Two fixing screws, plugs and c.p. caps. Supplied with two tapholes. fitted with two MEDICAL Pillar taps elbow action.1/2" BSP MI SANS 226 TYPE 2.	No	1			
5	San 011 - URINAL SANITARYWARE 565 x 275 x 310mm White vitreous china wall mounted back inlet urinal including 38mm chromium plated domical grating and chromium plated back inlet spreader and urinal division fixed with and including fixing screws and hanger brackets.	No	2			
6	SANITARYWARE vitreous china Urinal division, complete with fixing screw and hanger bracket.	No	1			
7	SS004 - STAINLESS STEEL INSET SINK - 1235 x 435 Stainless Steel satin Inset, double bowl, single drainer Sink, Single Sink Mixer with Aerated swivel outlet 1 1/2 " BSP Female outlet. SANS 1480. All included accessories.	No	1			
8	50mm Waste pipe	m	23			
9	110mm pvc pipe laid to min falls 1:60. Pipes beneath slab to be encased in concrete	m	6			
10	110 T junction with inspection eye	No	6			
11	Brick sewer manhole	No	3			
12	Gulley	No	3			
13	Stub/vent valve	No	8			
14	Floor drain	No	3			
15	Testing		Item			
Carried to Collection					R	
Section No. 5 Admin Block Bill No. 13 Plumbing & Drainage (Provisional)						

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Section No. 5 Bill No. 13 Plumbing & Drainage (Provisional) <u>COLLECTION</u> Total Brought Forward from Page No.					
Carried Forward to Summary of Section No. 5 Section No. 5 Admin Block Bill No. 13 Plumbing & Drainage (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 5</u> <u>BILL NO. 14</u> <u>GLAZING</u> <u>Float glass</u> The term "float glass" is used for monolithic annealed glass <u>Laminated glass</u> <u>GLAZING TO STEEL WITH PUTTY</u> <u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than 0.5m² 6mm safety glass for all panels lower than 900mm above FFL (Fit obscure glazing in toilets and ablutions). All to comply with National building regulations see also glazing preambles for minimum standards.</u>					
1	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>Windows to be glazed to SANS min. standards - 6mm safety glass for all panels lower than 900mm above FFL</u>	m2	23			
2	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>Windows to be glazed to SANS min. standards - Fit obscure glazing in toilets and ablutions</u>	m2	6			
3	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u> <u>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges, fixed with double sided adhesive tape and silicone</u>	m2	3			
4	450mm x 600mm High quality mirror complete with bevelled edges	No	6			
	Carried Forward to Summary of Section No. 5				R	
	Section No. 5 Admin Block Bill No. 14 Glazing					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 15</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 5</p> <p>Admin Block</p> <p>Bill No. 15</p> <p>Paintwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	724			
2	On external walls	m2	45			
	<u>ON CONCRETE</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new smooth concrete surfaces. One coat Primer and with two coats PVA</u>					
3	On internal ceilings and beams	m2	10			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
4	On ceilings	m2	262			
5	On cornice not exceeding 300mm girth	m	266			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
6	On door frames	m2	2			
7	On window frames	m2	50			
	Carried to Collection				R	
	Section No. 5					
	Admin Block					
	Bill No. 15					
	Paintwork					

R

118.

119.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>The following are typical examples of descriptions of "nature of ground" Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Dinning & Nutrition Centre Bill No. 1 Earthworks (Provisional)</p>			R		

121.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	10			
	<u>Compaction of ground surfaces</u>					
9	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density LAYER WORK	m2	336			
	<u>Keeping excavations free of water</u>					
10	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
11	In prescribed stock piles on site to trenches and holes	m3	20			
	<u>Earthfilling of 150mm thick G7 natural gravel compacted to 95% Mod Asstho Density</u>					
12	Under surface beds in 150mm layer	m3	50			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	5			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	2			
	Carried to Collection				R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 1 Earthworks (Provisional)					

<div>Section No. 6</div> <div>Bill No. 1</div> <div>Earthworks (Provisional)</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 6</div> <div>Section No. 6</div> <div>Dinning & Nutrition Centre</div> <div>Bill No. 1</div> <div>Earthworks (Provisional)</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	Carried to Collection			R		
	Section No. 6					
	Dinning & Nutrition Centre					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

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Item No	Description	Unit	Quantity	Rate	Amount	
7	Padstone	No	22			
	<u>TEST CUBES</u>					
8	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	10			
	<u>Scabbling</u>					
9	Scabble edges of existing concrete and apply wet-to-dry epoxy agent on edges	m2	62			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
10	Surface beds, slabs, etc to falls	m2	74			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>					
11	Surface beds, slabs, etc to falls and currents	m2	260			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
12	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	40			
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
13	Not exceeding 300mm high to edges of surface beds	m	378			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
14	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	19			
15	3 x 40mm Saw-cut joints in top of concrete	m	66			
	Carried to Collection				R	
	Section No. 6					
	Dinning & Nutrition Centre					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

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Section No. 6 Bill No. 2 Concrete, Formwork & Reinforcement <u>COLLECTION</u> Total Brought Forward from Page No.					
Carried Forward to Summary of Section No. 6 Section No. 6 Dinning & Nutrition Centre Bill No. 2 Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 6</p> <p>Dinning & Nutrition Centre</p> <p>Bill No. 3</p> <p>Masonry</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p> <p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>					
1	300mm Hollow walls of two half brick skins	m2	14			
	Carried to Collection				R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SUPERSTRUCTURE</u>					
	<u>Brickwork of NFP bricks in class II mortar in load bearing walls</u>					
2	Half brick walls	m2	41			
3	Half brick walls in beamfilling	m2	2			
4	One brick walls	m2	44			
	<u>BRICKWORK SUNDRIES</u>					
5	Forming toothings and bonding new brickwork to existing	m2	36			
	<u>Steel bar reinforcement</u>					
6	8mm Diameter mild steel bars built in horizontally	t	1.00			
7	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Air bricks etc</u>					
8	229 x 152mm Terracotta vermin proof air brick	No	3			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
9	Extra over brickwork for face brickwork for one side of one brick wall	m2	44			
	Carried to Collection				R	
	Section No. 6					
	Dinning & Nutrition Centre					
	Bill No. 3					
	Masonry					

133.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 6</u>					
	<u>BILL NO. 5</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	514			
2	Side cladding not exceeding 250mm	m2	3			
3	Gable end side cladding	m2	4			
4	Ridge or Valley flashing	m	6			
5	Ridge Closer	m	9			
	<u>Chromadek roof sheeting for walkways to match roofing colour</u>					
6	Corrugated Chromadek sheeting @ 3 degree pitch fixed to lip channel	m2	42			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
7	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	42			
	Carried Forward to Summary of Section No. 6				R	
	Section No. 6					
	Dinning & Nutrition Centre					
	Bill No. 5					
	Roof coverings, Claddings, etc					

135.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 334m2 overall on plan x 1.893mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	27			
	<u>SKIRTINGS</u>					
	<u>Timber Skirting, size 18 x 100mm plugged and screwed to wall surface.</u>					
3	18mm x 100mm High skirtings	m	128			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
4	78 x 78mm Branders	m	105			
5	250 x 20mm Barge boards	m	14			
6	250 x 20mm Fascias	m	9			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	User note					
	Where SANS 1253 in the following description is not applicable, refer to other suitable construction standards or provide full specifications					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
7	813 X 2032 X 40mm Solid core flush masonite panel door	No	7			
8	Double leaf small pane steel french doors (Code: DDA), overall size 1511 x 2134mm high	No	2			
	Carried to Collection				R	
	Section No. 6					
	Dinning & Nutrition Centre					
	Bill No. 6					
	Carpentry and Joinery					

Item No	Description	Unit	Quantity	Rate	Amount	
9	1280x1825mm Galvanised steel double room door. <u>WINDOWS</u> <u>Standard hardboard</u>	No	1			
10	10mm Duct covers in 500mm widths, fixed at 250mm centres along edges with chromium plated dome headed screws in cup washers <u>JOINERY SUNDRIES</u> <u>Wrought Meranti or similar approved</u> <u>NOTICEBOARDS, KEYBOARDS, DUCKBOARDS, ETC</u> <u>Wrought Meranti or similar</u>	m2	27			
11	Standard 20mm Pinning or notice board 1500 x 1500mm high glued to backboard fixed with timber 38 x 38mm Grounds, glued too plastered walls <u>White boards</u>	No	2			
12	Classroom white boards not exceeding 8m2 with 38 x 38mm Grounds, fixed to plastered walls <u>Fire extinguisher boards</u>	No	1			
13	20mm Backboards for 4,5kg fire extinguishers plugged to wall <u>CUPBOARDS AND COUNTER TOP JOINERY TO KITCHENS, BEDROOMS, TOPS ETC</u> <u>Cupboards and shelving etc.</u> <u>Refer to Sediko - Sheet - DBSA-JBT-S1-ARCH-DWG104 DNC Plans & Sections</u>	No	4			
14	Shelving 2070 x 500mm deep and 1700 x 600mm deep made and fixed to walls etc. complete as per architectural details	No	1			
15	L shaped shelving 600mm seep 3.6m long made and fixed to walls etc. complete as per architectural details	No	1			
Carried to Collection				R		
Section No. 6 Dinning & Nutrition Centre Bill No. 6 Carpentry and Joinery						

R

<div>Section No. 6</div> <div>Bill No. 6</div> <div>Carpentry and Joinery</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 6</div> <div>Section No. 6</div> <div>Dinning & Nutrition Centre</div> <div>Bill No. 6</div> <div>Carpentry and Joinery</div>					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 7</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>NAILED-UP CEILINGS</u></p> <p><u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine branderling at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heards. Plus Isover 115mm thick Aerolite thermal ceiling insulation</u></p>				
1	Ceilings nailed-up not exceeding 1m below roof trusses	m2	157		
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Dinning & Nutrition Centre Bill No. 7 Ceilings, Partitions and Access Flooring</p>			R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine brander at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heads. Plus Isover 115mm thick Aerolite thermal ceiling insulation. Timber brander shall be suitably fixed to the tie beam/joist.</u></p>					
2	<p>Ceilings nailed-up not exceeding 1m below roof trusses</p> <p><u>Cornice, perimeter trims, etc to ceiling</u></p> <p><u>Gypsum cornice, 75 x 75mm high</u></p>	m2	43			
3	<p>Cornice</p> <p><u>PARTITIONS</u></p> <p><u>Partition System comprising 16mm thick particle board panels, laminated both sides with Melamine, edged all round with 22 x 22mm lipped channel and fixed into position by means of full height vertical aluminium receiving channels plugged to walls and fixed to pilasters. Partitions are to be supported by a continuous 25 x 25mm aluminium transom section over doors and supplied with standard ironmongery comprising indicator bolts, hat and coat hooks, doors stops, toilet roll holders and rubber buffers. All exposed aluminium sections are to be natural anodised</u></p>	m	159			
4	Partitions 2000mm high	m	6			
5	Extra over partitions for T junctions	No	2			
6	Extra over partitions for vertical abutments	No	4			
7	Extra over partition for partition door 762 x 1762mm high framed including standard ironmongery	No	4			
	Carried to Collection				R	
	Section No. 6					
	Dinning & Nutrition Centre					
	Bill No. 7					
	Ceilings, Partitions and Access Flooring					

142.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 8</u></p> <p><u>FLOOR COVERINGS, WALL LININGS, ETC.</u></p> <p><u>Fixing</u></p> <p>Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc FLOOR COVERINGS</p> <p><u>Fully flexible vinyl floor tiles, size 300 x 300 x 2.5mm thick, manufactured in accordance with SANS 786:2000, laid in adhesive spread with a trowel using Leveller when required and rolled with 68kg three section metal roller on completion.</u></p>					
1	<p>On new screeded floors</p> <p><u>Fully flexible vinyl floor tiles, 2.5mm thick, manufactured in accordance with SANS 786:2000, laid in adhesive spread with a trowel using Leveller when required and rolled with 68kg three section metal roller on completion.</u></p>	m2	122			
2	100mm High skirting	m	46			
	<p>Carried Forward to Summary of Section No. 6</p> <p>Section No. 6 Dinning & Nutrition Centre Bill No. 8 Floor coverings, Wall Linings, etc</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 9</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration HINGES, BOLTS, ETC</p> <p><u>Manufactured by Dorma or equally approved</u></p> <p><u>Measured per door</u></p>					
1	Stainless Steel floor mounted door stop size 24 x 45mm, 2 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	3			
2	Stainless Steel floor mounted door stop size 24 x 45mm, 2 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	3			
3	Stainless Steel floor mounted door stop size 24 x 45mm, 4 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	2			
4	4 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	1			
	Carried to Collection				R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 9 Ironmongery					

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 10</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work: 1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 6</p> <p>Dinning & Nutrition Centre</p> <p>Bill No. 10</p> <p>Metalwork</p>					

148.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>GALVANISED STEEL WINDOWS, DOORS, ETC</u>					
	<u>Standard residential windows</u>					
	<u>Standard school windows</u>					
6	Top hung standard steel window, finished in Grey oxide primer, size 889mm x 854mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant	No	1			
7	Top hung standard steel window, finished in Grey oxide primer, size 1022mm x 654mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant	No	1			
	<u>ALUMINIUM WINDOWS, DOORS, ETC</u>					
	<u>Aluminium windows</u>					
8	Custom-made aluminium vertical pivot window with dimensions and configuration as indicated. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant Standard aluminium frame in configuration as shown with or without opening sections as shown, complete with heavy-duty hinges, latches and restrictors (max. 100mm). Waterproof frame surround and joints with an approved soft seal. Polyester powder coated. All to AAAMSA standards and Architects approval.	No	4			
	Carried to Collection				R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 10 Metalwork					

Item No	Description	Unit	Quantity	Rate	Amount	
9	Custom-made aluminium vertical pivot window with dimensions and configuration as indicated. fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant Standard aluminium frame in configuration as shown with or without opening sections as shown, complete with heavy-duty hinges, latches and restrictors (max. 100mm). Waterproof frame surround and joints with an approved soft seal. Polyester powder coated. All to AAAMSA standards and Architects approval.	No	1			
	Carried to Collection				R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 10 Metalwork					

151.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 11</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 6</p> <p>Dinning & Nutrition Centre</p> <p>Bill No. 11</p> <p>Plastering</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>SCREEDS</u></p> <p><u>Self levelling Screeds on concrete</u></p>					
1	<p>30mm Thick screed on floors and landings</p> <p><u>Prepare substrate by abrasive blasting or grinding, leaving surface clean, sound, laitance and dust free with a maximum moisture content of 4%. Prime surface with one coat Solvent Based Epoxy Sealer & Penetrating Coat. Apply two coats Beige Ivory 304 (4:1 mixing ratio) epoxy floor with a minimum dry film thickness of 45 microns. Applied in accordance with approved specifications by approved applicators.</u></p>	m2	212			
2	<p>On floors and landings</p>	m2	58			
	Carried to Collection				R	
	<p>Section No. 6</p> <p>Dinning & Nutrition Centre</p> <p>Bill No. 11</p> <p>Plastering</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
3	<p><u>Ensure the surface to be treated is clean and free from dirt, stains, oil, release agents, wax coatings etc. Using a suitable applicator, apply three coats of stain with 30 minute intervals between coats. Allow 48 hours for the stain to achieve its full colour development. Overcoat with Seal.</u></p> <p>On floors and landings</p> <p><u>INTERNAL PLASTER</u></p> <p><u>Plaster mix for rough brick walls, composed of 1 part : and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls, in accordance with SANS 50197-1</u></p>	m2	33			
4	<p>On walls</p> <p><u>EXTERNAL PLASTER</u></p> <p><u>Plaster mix for rough brick walls, composed of 1 part : and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls, in accordance with SANS 50197-1</u></p>	m2	446			
5	<p>On walls</p>	m2	15			
Carried to Collection					R	
Section No. 6						
Dinning & Nutrition Centre						
Bill No. 11						
Plastering						

156.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 13</u></p> <p><u>PLUMBING & DRAINAGE (PROVISIONAL)</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site French drains</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Dinning & Nutrition Centre Bill No. 13 Plumbing & Drainage (Provisional)</p>				
				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p>PVC-U pressure pipes and fittings</p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings Polypropylene pipes</p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p>					
	Carried to Collection				R	
	<p>Section No. 6</p> <p>Dinning & Nutrition Centre</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p>					
	Carried to Collection			R		
	<p>Section No. 6</p> <p>Dinning & Nutrition Centre</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>General</u> Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately) Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately) Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured) <u>As-built drawings</u> <u>SANITARYWARE</u>					
1	SS008 - CONCRETE DOUBLE WASH TROUGH 1080mm (l) x 650mm (w) x 900mm (h) GC Concrete double wash trough	No	2			
2	SS007 - STAINLESS STEEL inset Wash trough 600x500x257mm. Unit to be manufactured from Grade 304 (18/10) Stainless Steel, 0,9mm gauge. Unit to include a pressed bowl 525x425x257mm deep (43 litres) with a 40mm waste outlet. Unit to be fitted into the worktop, cut out size 585x485mm (worktop elsewhere measured).Stainless Steel Single Sink Mixer with Aerated swivel outlet 1 1/2 " BSP Female outlet. SANS 1480. All included accessories.	No	3			
Carried to Collection					R	
Section No. 6 Dinning & Nutrition Centre Bill No. 13 Plumbing & Drainage (Provisional)						

Item No	Description	Unit	Quantity	Rate	Amount	
3	SS006 - STAINLESS STEEL FLOOR DRAIN with Side Inlets 1-4. Unique Full Flow Floor Trap with the following features: Manufactured from Stainless Steel 304 to ensure acid corrosion and stain resistance. A double water seal to ensure odour-free operation. A large sludge box which retains all the coarse slurry . Top Flange Type: Round (For Epoxy Floors) or Square (For Tiled Floors) Top Cover Plate Type: Circular aperture / Slots / Holes - as requested. Extension for side inlets: 1, 2, 3 or 4 inlets	No	4			
4	SS005 - STAINLESS STEEL GREASE TRAP Rofo Engineering grade stainless steel grease trap, with two large strainer baskets with draining slots size 700 x 400 x 400mm with 110mm horizontal inlet and 110mm waste outlet, connected to waste pipe.	No	1			
5	50mm Waste pipe	m	14			
6	110mm pvc pipe laid to min falls 1:60. Pipes beneath slab to be encased in concrete	m	1			
7	T junction with inspection eye	No	2			
8	Brick sewer manhole	No	1			
9	Gulley	No	1			
10	Stub/vent valve	No	4			
	<u>WATER SUPPLY</u>					
	<u>Class 1 copper pipes are recommended for high quality installations</u>					
11	22mm Pipes	m	6			
12	22mm Pipes chased into brickwork including brown paper lagging	m	15			
13	Testing water pipe system		Item			
	Carried to Collection				R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 13 Plumbing & Drainage (Provisional)					

<div>Section No. 6</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 6</div> <div>Section No. 6</div> <div>Dinning & Nutrition Centre</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 6</u> <u>BILL NO. 14</u> <u>GLAZING</u> <u>Float glass</u> The term "float glass" is used for monolithic annealed glass <u>Laminated glass</u> <u>GLAZING TO STEEL WITH PUTTY</u> <u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than and 6mm safety glass for all panels lower than 900mm above FFL (Fit obscure glazing in toilets and ablutions). All to comply with National building regulations see also glazing preambles for minimum standards.</u>					
1	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u> <u>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges, fixed with double sided adhesive tape and silicone</u>	m2	220			
2	450mm x 600mm High quality mirror complete with bevelled edges	No	26			
	<p style="text-align: right;">Carried Forward to Summary of Section No. 6</p> Section No. 6 Dinning & Nutrition Centre Bill No. 14 Glazing			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 15</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p><u>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</u></p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Dinning & Nutrition Centre Bill No. 15 Paintwork</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	447			
2	On external walls	m2	15			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
3	On ceilings	m2	157			
4	On cornice not exceeding 300mm girth	m	159			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
5	On door frames	m2	2			
6	On window frames	m2	17			
	<u>Wash door with galvanised iron cleaner, rinse and allow to dry. Paint with undercoat suitable for galvanised iron surface, followed by 2 coats of non drip enamel paint, colour to architect approval</u>					
7	On door frames	m2	10			
8	On doors	m2	1			
	Carried to Collection				R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 15 Paintwork					

Item No	Description	Unit	Quantity	Rate	Amount
	<u>ON WOOD</u>				
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>				
9	On doors	m2	37		
	Carried to Collection			R	
	Section No. 6 Dinning & Nutrition Centre Bill No. 15 Paintwork				

167.

168.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>The following are typical examples of descriptions of "nature of ground" Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Refurb Science and Multimedia Lab Bill No. 1 Earthworks (Provisional)</p>			R		

170.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	33			
	<u>Compaction of ground surfaces</u>					
9	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density LAYER WORK	m2	361			
	<u>Keeping excavations free of water</u>					
10	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
11	From prescribed stock piles to trenches and holes	m3	70			
	<u>Earthfilling of 150mm thick G7 natural gravel compacted to 95% Mod Asstho Density</u>					
12	Under surface beds in 150mm layer	m3	55			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	5			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	2			
	Carried to Collection				R	
	Section No. 7 Refurb Science and Multimedia Lab Bill No. 1 Earthworks (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 7</p> <p>Refurb Science and Multimedia Lab</p> <p>Bill No. 2</p> <p>Concrete, Formwork & Reinforcement</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15MPa/19mm concrete</u></p>					
1	Surface blinding under footings and bases	m3	6			
	<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p>					
2	Bases	m3	3			
3	Strip footings	m3	31			
	<p><u>REINFORCED CONCRETE CAST IN FORMWORK</u></p> <p><u>25MPa/19mm concrete</u></p>					
4	Surface beds on waterproofing (including thickenings)	m3	33			
5	Ramps	m3	3			
6	Stairs including landings, beams and inverted beams	m3	4			
	Carried to Collection				R	
	Section No. 7					
	Refurb Science and Multimedia Lab					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>TEST CUBES</u>					
7	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	16			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
8	Surface beds, slabs, etc to falls	m2	279			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>					
9	Surface beds, slabs, etc to falls and currents	m2	73			
	<u>20 MPa non-shrink grout</u>					
10	Bedding approximately 100mm thick under 50 x 50mm base plate	No	11			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
11	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	146			
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
12	Not exceeding 300mm high to edges of surface beds	m	146			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
13	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	19			
14	3 x 40mm Saw-cut joints in top of concrete	m	70			
	Carried to Collection				R	
	Section No. 7					
	Refurb Science and Multimedia Lab					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

176.

177.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p> <p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p>				
	<p style="text-align: right;">Carried to Collection</p>			R	
	<p>Section No. 7</p> <p>Refurb Science and Multimedia Lab</p> <p>Bill No. 3</p> <p>Masonry</p>				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>					
1	300mm Hollow walls of two half brick skins	m2	84			
2	330 x 330mm Brick square brick piers in foundations at 680mm high	No	10			
	<p><u>SUPERSTRUCTURE</u></p> <p><u>Brickwork of NFP bricks in class II mortar in load bearing walls</u></p>					
3	Half brick walls	m2	13			
4	Half brick walls in beamfilling	m2	10			
5	One brick walls	m2	457			
6	330 x 330mm Brick square brick piers in height 3.34m	No	10			
	Carried to Collection				R	
	Section No. 7 Refurb Science and Multimedia Lab Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Steel bar reinforcement</u>					
7	8mm Diameter mild steel bars built in horizontally	t	1.00			
8	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>					
9	75 x 110mm Lintels in lengths not exceeding 3m	m	10			
10	75 x 220mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10			
11	220 x 110mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	10			
	<u>Turning pieces to lintels etc</u>					
12	220mm Wide turning pieces	m	39			
	<u>Air bricks etc</u>					
13	229 x 152mm Terracotta vermin proof air brick	No	4			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
14	Extra over brickwork for face brickwork for one side of one brick wall	m2	330			
15	Extra over brickwork for face brickwork for one side of one brick wall internally up to 900mm high above FFL	m2	77			
16	Extra over brickwork for facebrickwork for 330mm x 330mm brick column @ 3.34m high	No	10			
17	Extra over face brickwork both sides of one brick wall	m2	20			
	Carried to Collection				R	
	Section No. 7 Refurb Science and Multimedia Lab Bill No. 3 Masonry					

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<div>Section No. 7</div> <div>Bill No. 3</div> <div>Masonry</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 7</div> <div>Section No. 7</div> <div>Refurb Science and Multimedia Lab</div> <div>Bill No. 3</div> <div>Masonry</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 4</u></p> <p><u>WATERPROOFING</u></p> <p><u>Waterproofing</u></p> <p>Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><u>DAMPPROOFING OF WALLS AND FLOORS</u></p> <p><u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u></p>					
1	<p>In walls</p> <p><u>One layer 250 micron green polyethylene waterproof sheeting SANS 952-1985 type C sealed at laps with PVC self-adhesive tape</u></p>	m2	88			
2	Under surface beds	m2	362			
3	Vertically between walls	m2	10			
4	<p><u>Mastic or silicone sealing compound including backing cord, bond breaker, primer, etc</u></p> <p>6 x 10mm In saw cut joints in floors</p>	m	740			
	<p>Carried Forward to Summary of Section No. 7</p> <p>Section No. 7 Refurb Science and Multimedia Lab Bill No. 4 Waterproofing</p>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 7</u>					
	<u>BILL NO. 5</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	427			
2	Side cladding	m2	18			
3	Gable end side cladding not exceeding 250mm	m2	7			
4	Ridge or Valley flashing	m	36			
5	Ridge Closer	m	36			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
6	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	278			
	Carried Forward to Summary of Section No. 7				R	
	Section No. 7					
	Refurb Science and Multimedia Lab					
	Bill No. 5					
	Roof coverings, Claddings, etc					

185.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 352m2m overall on plan x 1.893mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	90			
	<u>SKIRTINGS</u>					
	<u>Timber Skirting, size 18 x 100mm plugged and screwed to wall surface.</u>					
3	18mm x 100mm High skirtings	m	221			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
4	78 x 78mm Branders	m	883			
5	250 x 20mm Barge boards	m	25			
6	250 x 20mm Fascias	m	71			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
	<u>DOORS ETC</u>					
7	813 x 2032 x 40mm Solid core flush masonite panel door	No	8			
	<u>WINDOWS</u>					
	<u>Standard hardboard</u>					
8	10mm Duct covers in 50mm widths, fixed at 100mm centres along edges with chromium plated dome headed screws in cup washers	m2	27			
	Carried to Collection				R	
	Section No. 7					
	Refurb Science and Multimedia Lab					
	Bill No. 6					
	Carpentry and Joinery					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>JOINERY SUNDRIES</u>					
	<u>NOTICEBOARDS, KEYBOARDS, DUCKBOARDS, ETC</u>					
	<u>Wrought Meranti or similar</u>					
9	Standard 20mm Pinning or notice board 1500 x 1500mm high glued to backboard fixed with timber 38 x 38mm Grounds, glued too plastered walls	No	2			
	<u>White boards</u>					
10	Classroom whie boards not exceeding 8m2 with 38 x38mm Grounds, fixed to plastered walls	No	1			
	<u>Fire extinguisher boards</u>					
11	20mm Backboards for 4,5kg fire extinguishers plugged to wall	No	2			
	<u>CUPBOARDS AND COUNTER TOP JOINERY TO KITCHENS, BEDROOMS, TOPS ETC</u>					
	<u>Cupboards and shelving etc.</u> <u>Refer to Sediko - Sheet - DBSA-JBT-S1-ARCH-DWG114 Science & Media-Plans & Sections</u>					
12	Long L Shaped Shelving at 1500mm high, including end section for newspapers, as per architectural details	No	1			
13	Island shelving as per architectural details of 3 units 2 of the same sizes and one smaller size	No	3			
14	Fixed shelving as per architectural details	No	1			
15	Fixed shelving as per architectural details	No	1			
	<u>Counter Tops</u> <u>Refer to Sediko - Sheet - DBSA-JBT-S1-ARCH-DWG114 Science & Media-Plans & Sections</u>					
16	Solid worktop counter fixed to wall with brackets or similar including holes	No	1			
	Carried to Collection				R	
	Section No. 7 Refurb Science and Multimedia Lab Bill No. 6 Carpentry and Joinery					

Item No	Description	Unit	Quantity	Rate	Amount
17	Solid worktop counter fixed to wall with brackets or similar including holes	No	1		
18	Counter top as per design detail 600mm deep of melamine wrapped finish complete	No	1		
19	Counter top as per design detail 600mm deep of melamine wrapped finish complete	No	1		
20	Counter top as per design detail 600mm deep of melamine wrapped finish complete	No	1		
21	Counter top as per architectural details complete	No	1		
Carried to Collection					
Section No. 7					
Refurb Science and Multimedia Lab					
Bill No. 6					
Carpentry and Joinery					

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190.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine brander at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heards. Plus Isover 115mm thick Aerolite thermal ceiling insulation. Timber brander shall be suitably fixed to the tie beam/joist.</u>					
2	Ceilings nailed-up not exceeding 1m below roof trusses	m2	35			
	<u>Cornice, perimeter trims, etc to ceiling</u>					
	<u>Gypsum cornice, 75 x 75mm high</u>					
3	Cornice	m	163			
	<u>PARTITIONS</u>					
	<u>Toilet Partition System comprising 16mm thick particle board panels, laminated both sides with Melamine, edged all round with 22 x 22mm lipped channel and fixed into position by means of full height vertical aluminium receiving channels plugged to walls and fixed to pilasters. Partitions are to be supported by a continuous 25 x 25mm aluminium transom section over doors and supplied with standard ironmongery comprising indicator bolts, hat and coat hooks, doors stops, toilet roll holders and rubber buffers. All exposed aluminium sections are to be natural anodised</u>					
4	Partitions 2000mm high	m	6			
5	Extra over partitions for T junctions	No	2			
6	Extra over partitions for vertical abutments	No	4			
7	Extra over partition for partition door 762 x 1762mm high framed including standard ironmongery	No	4			
	Carried to Collection				R	
	Section No. 7					
	Refurb Science and Multimedia Lab					
	Bill No. 7					
	Ceilings, Partitions and Access Flooring					

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193.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 9</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration HINGES, BOLTS, ETC</p> <p><u>Manufactured by Dorma or equally approved</u></p> <p><u>Measured per door</u></p>					
1	Stainless Steel floor mounted door stop, size 24 x 45mm, 2 x UNION two ball bearing butt hinge Stainless Steel finish, 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	6			
2	Stainless Steel floor mounted door stop, size 24 x 45mm, 2 x UNION two ball bearing butt hinge Stainless Steel finish, 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	2			
3	4 x UNION two ball bearing butt hinge with Stainless Steel finish, 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	2			
	<p><u>DOOR CLOSERS</u></p> <p><u>Manufactured by Dorma or equally approved</u></p>					
4	Door closer	No	2			
	<p>Carried Forward to Summary of Section No. 7</p> <p>Section No. 7 Refurb Science and Multimedia Lab Bill No. 9 Ironmongery</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 10</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work:1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>				
	<p style="text-align: right;">Carried to Collection</p>			R	
	<p>Section No. 7</p> <p>Refurb Science and Multimedia Lab</p> <p>Bill No. 10</p> <p>Metalwork</p>				

196.

R

Section No. 7 Bill No. 10 Metalwork <u>COLLECTION</u> Total Brought Forward from Page No.					
Carried Forward to Summary of Section No. 7					
Section No. 7 Refurb Science and Multimedia Lab Bill No. 10 Metalwork					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 11</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 7</p> <p>Refurb Science and Multimedia Lab</p> <p>Bill No. 11</p> <p>Plastering</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>SCREEDS</u></p> <p><u>Self levelling Screeds on concrete</u></p>					
1	30mm Thick screed on floors and landings	m2	324			
	<p><u>INTERNAL PLASTER</u></p> <p><u>Plaster mix for rough brick walls, composed of 1 part : and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls, in accordance with SANS 50197-1</u></p>					
2	On walls	m2	385			
	Carried to Collection				R	
	Section No. 7					
	Refurb Science and Multimedia Lab					
	Bill No. 11					
	Plastering					

Item No	Description	Unit	Quantity	Rate	Amount
3	<p><u>EXTERNAL PLASTER</u></p> <p><u>Plaster mix for rough brick walls, composed of 1 part : and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls, in accordance with SANS 50197-1</u></p> <p>On walls</p>	m2	35		
	Carried to Collection			R	
	Section No. 7 Refurb Science and Multimedia Lab Bill No. 11 Plastering				

203.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 13</u></p> <p><u>PLUMBING & DRAINAGE (PROVISIONAL)</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site French drains</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p>				
	Carried to Collection			R	
	<p>Section No. 7</p> <p>Refurb Science and Multimedia Lab</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>PVC-U pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings Polypropylene pipes</p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p>					
	Carried to Collection				R	
	<p>Section No. 7</p> <p>Refurb Science and Multimedia Lab</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Refurb Science and Multimedia Lab Bill No. 13 Plumbing & Drainage (Provisional)</p>			R		

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<div>Section No. 7</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 7</div> <div>Section No. 7</div> <div>Refurb Science and Multimedia Lab</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 14</u></p> <p><u>GLAZING</u></p> <p><u>Float glass</u></p> <p>The term "float glass" is used for monolithic annealed glass</p> <p><u>Laminated glass</u></p> <p><u>GLAZING TO STEEL WITH PUTTY</u></p> <p><u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than 0.5mm²</u> <u>All to comply with National building regulations see also glazing preambles for minimum standards.</u></p>					
1	Panes exceeding 0,1m ² and not exceeding 0,5m ²	m2	46			
	<p>Carried Forward to Summary of Section No. 7</p> <p>Section No. 7 Refurb Science and Multimedia Lab Bill No. 14 Glazing</p>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 15</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Refurb Science and Multimedia Lab Bill No. 15 Paintwork</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	385			
2	On external walls	m2	35			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
3	On ceilings	m2	220			
4	On cornice not exceeding 300mm girth	m	163			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
5	On door frames	m2	1			
6	On window frames	m2	17			
	<u>Contractors Gloss Enamel (colour to be selected) to new interior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
7	On door frames	m2	3			
8	On doors	m2	1			
	Carried to Collection				R	
	Section No. 7					
	Refurb Science and Multimedia Lab					
	Bill No. 15					
	Paintwork					

214.

215.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (Provisional)</u></p> <p><u>The following are typical examples of descriptions of "nature of ground" Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 8</p> <p>Classroom Block 5 & Head of Department</p> <p>Bill No. 1</p> <p>Earthworks (Provisional)</p>					

R

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	30			
	<u>Compaction of ground surfaces</u>					
9	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density LAYER WORK	m2	331			
	<u>Keeping excavations free of water</u>					
10	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
11	In prescribed stock piles on site	m3	59			
	<u>Earthfilling of 150mm thick G7 natural gravel compacted to 95% Mod Asstho Density</u>					
12	Under surface beds in 150mm layer	m3	50			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	5			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	2			
	Carried to Collection				R	
	Section No. 8					
	Classroom Block 5 & Head of Department					
	Bill No. 1					
	Earthworks (Provisional)					

219.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 8</p> <p>Classroom Block 5 & Head of Department</p> <p>Bill No. 2</p> <p>Concrete, Formwork & Reinforcement</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15MPa/19mm concrete</u></p>					
1	Surface blinding under footings and bases	m3	5			
	<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p>					
2	Bases	m3	1			
3	Strip footings	m3	22			
	<p><u>REINFORCED CONCRETE CAST IN FORMWORK</u></p> <p><u>25MPa/19mm concrete</u></p>					
4	Surface beds on waterproofing (including thickenings)	m3	38			
5	Ramps	m3	1			
6	Stairs including landings, beams and inverted beams	m3	4			
	Carried to Collection				R	
	Section No. 8					
	Classroom Block 5 & Head of Department					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>TEST CUBES</u>					
7	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	10			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
8	Surface beds, slabs, etc to falls	m2	261			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>					
9	Surface beds, slabs, etc to falls and currents	m2	75			
	<u>20 MPa non-shrink grout</u>					
10	Bedding approximately 100mm thick under 50 x 50mm base plate	No	9			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
11	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	161			
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
12	Not exceeding 300mm high to edges of surface beds	m	200			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
13	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	19			
14	3 x 40mm Saw-cut joints in top of concrete	m	66			
	Carried to Collection				R	
	Section No. 8					
	Classroom Block 5 & Head of Department					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount
15	<u>Horizontal construction joints through concrete including thick cement slurry to one face</u> Surface beds not exceeding 300mm thick as per engineers details <u>REINFORCEMENT</u> <u>Mild steel reinforcement to structural concrete work</u>	m	81		
16	Y10mm Diameter bars	t	1.00		
17	Y8mm Diameter bars	t	1.00		
18	<u>Fabric reinforcement</u> Type 193 fabric reinforcement in concrete surface beds etc	m ²	336		
Carried to Collection					R
Section No. 8 Classroom Block 5 & Head of Department Bill No. 2 Concrete, Formwork & Reinforcement					

<div>Section No. 8</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 8</div> <div>Section No. 8</div> <div>Classroom Block 5 & Head of Department</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 8</p> <p>Classroom Block 5 & Head of Department</p> <p>Bill No. 3</p> <p>Masonry</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p> <p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>					
1	300mm Hollow walls of two half brick skins	m2	90			
	Carried to Collection				R	
	Section No. 8 Classroom Block 5 & Head of Department Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SUPERSTRUCTURE</u>					
	<u>Brickwork of NFP bricks in class II mortar in load bearing walls</u>					
2	Half brick walls	m2	1			
3	Half brick walls in beamfilling	m2	10			
4	One brick walls	m2	420			
	<u>Steel bar reinforcement</u>					
5	8mm Diameter mild steel bars built in horizontally	t	1.00			
6	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>					
7	75 x 110mm Lintels in lengths not exceeding 3m	m	10			
8	75 x 220mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10			
9	220 x 110mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	10			
	<u>Turning pieces to lintels etc</u>					
10	220mm Wide turning pieces	m	5			
	<u>Air bricks etc</u>					
11	229 x 152mm Terracotta vermin proof air brick	No	4			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
12	Extra over brickwork for face brickwork for one side of one brick wall	m2	268			
	Carried to Collection				R	
	Section No. 8 Classroom Block 5 & Head of Department Bill No. 3 Masonry					

Section No. 8
Classroom Block 5 & Head of Department
Bill No. 3
Masonry

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Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 8</u> <u>BILL NO. 4</u> <u>WATERPROOFING</u> <u>Waterproofing</u> Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs <u>DAMPPROOFING OF WALLS AND FLOORS</u> <u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u>					
1	In walls <u>One layer 250 micron green polyethylene waterproof sheeting SANS 952-1985 type C sealed at laps with PVC self-adhesive tape</u>	m2	19			
2	Under surface beds	m2	334			
3	Vertically between walls	m2	10			
4	<u>Mastic or silicone sealing compound including backing cord, bond breaker, primer, etc</u> 6 x 10mm In saw cut joints in floors	m	262			
	<p style="text-align: right;">Carried Forward to Summary of Section No. 8</p> Section No. 8 Classroom Block 5 & Head of Department Bill No. 4 Waterproofing				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 8</u>					
	<u>BILL NO. 5</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	375			
2	Side cladding not exceeding 250mm	m2	18			
3	Gable end side cladding not exceeding 250mm	m2	3			
4	Ridge or Valley flashing	m	36			
5	Ridge Closer	m	36			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
6	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	264			
	Carried Forward to Summary of Section No. 8				R	
	Section No. 8					
	Classroom Block 5 & Head of Department					
	Bill No. 5					
	Roof coverings, Claddings, etc					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 6</u></p> <p><u>CARPENTRY & JOINERY</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Decorative thermosetting plastic laminate covering</u></p> <p>Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Trusses are at maximum 750mm centres</p> <p>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses Roof covering is type on purlins</p> <p>Ceiling is 6mm sheeting edge flush plastered on 38 x 38mm brandering</p> <p>References given in descriptions refer to the respective types of trusses detailed on the architect's/engineer's drawings numbered C100 RevA annexed to these bills of quantities accompanying these bills of quantities for tender purposes Dimensions in descriptions of trusses are nominal and actual measurements are to be obtained from the architect/engineer and/or taken on site before design or fabrication commences</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 8 Classroom Block 5 & Head of Department Bill No. 6 Carpentry and Joinery</p>				
				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 12.2 x 35.1m overall on plan x 1.893mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	108			
	<u>SKIRTINGS</u>					
	<u>Timber Skirting, size 18 x 100mm plugged and screwed to wall surface.</u>					
3	18mm x 100mm High skirtings	m	10			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
4	78 x 78mm Branders	m	7 225			
5	250 x 20mm Barge boards	m	11			
6	250 x 20mm Fascias	m	71			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
	<u>DOORS ETC</u>					
7	813 x 345mm Fanlight and of 813 x 2032 x 40mm solid core flush masonite panel door, 6.4mm clear fixed glazing on fanlight	No	8			
	Carried to Collection				R	
	Section No. 8					
	Classroom Block 5 & Head of Department					
	Bill No. 6					
	Carpentry and Joinery					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>WINDOWS</u>					
	<u>Standard hardboard</u>					
8	10mm Duct covers in 500mm widths, fixed at 250mm centres along edges with chromium plated dome headed screws in cup washers	m2	27			
	<u>JOINERY SUNDRIES</u>					
	<u>Wrought Meranti or similar approved</u>					
	<u>NOTICEBOARDS, KEYBOARDS, DUCKBOARDS, ETC</u>					
	<u>Wrought Meranti or similar</u>					
9	Standard 20mm Pinning or notice board 1500 x 1500mm high glued to backboard fixed with timber 38 x 38mm Grounds, glued too plastered walls	No	2			
	<u>White boards</u>					
10	Classroom white boards not eceeding 8m2 with 38 x38mm Grounds, fixed to plastered walls	No	4			
	<u>Fire extinguisher boards</u>					
11	20mm Backboards for 4,5kg fire extinguishers plugged to wall	No	2			
	Carried to Collection				R	
	Section No. 8 Classroom Block 5 & Head of Department Bill No. 6 Carpentry and Joinery					

235.

236.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 8</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration</p> <p><u>HINGES, BOLTS, ETC</u></p> <p><u>Manufactured by Dorma or equally approved</u></p> <p>Measured per door</p>				
1	<p>Stainless Steel floor mounted door stop size 24 x 45mm, 2 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.</p>	No	8		
	<p>Carried Forward to Summary of Section No. 8</p>			R	
	<p>Section No. 8 Classroom Block 5 & Head of Department Bill No. 8 Ironmongery</p>				

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 9</u></p> <p><u>STRUCTURAL STEELWORK</u></p> <p>Consideration is to be given in specific applications (e.g. where "heavy" steel structures such as in industrial plants, towers for mine shafts, etc are dominant) to implement the principles laid down by the "Measurement for Structural Steelwork" as prepared and recommended by the South African Institute of Steel Construction or any other appropriate principles This bill is, however, based on the building work measuring system</p> <p>Finishing-off painting is to be included in this trade</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p><u>STEEL COLUMNS AND BEAMS</u></p> <p><u>Welded beams and purlins etc. with flat bearer and connection plates, bolted to steel</u></p>				
1	60 x 60mm SHS stanchions	t	3.00		
	<p>Carried Forward to Summary of Section No. 8</p> <p>Section No. 8 Classroom Block 5 & Head of Department Bill No. 9 Structural Steelwork</p>			R	

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 10</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p><u>Descriptions of bolts shall be deemed to include nuts and washers</u></p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work:1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>				
	<p style="text-align: right;">Carried to Collection</p>			R	
	<p>Section No. 8</p> <p>Classroom Block 5 & Head of Department</p> <p>Bill No. 10</p> <p>Metalwork</p>				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process 4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>GALVANISED PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Double rebated frames suitable for one brick walls WITH 1 PAIR OF HINGES</u></p>					
1	<p>Frame for 813 x 2032 x 40mm door and fixed fanlight 235mm high</p> <p><u>GALVANISED STEEL WINDOWS, DOORS, ETC</u></p> <p><u>Standard school windows</u></p>	No	8			
2	<p>Top hung standard steel window, finished in Grey oxide primer, size 889mm x 854mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant</p>	No	8			
3	<p>Top & side hung standard steel window, finished in Grey oxide primer (Code: SS43), size 1 302mm x 1 445mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant</p>	No	28			
	Carried to Collection				R	
	<p>Section No. 8</p> <p>Classroom Block 5 & Head of Department</p> <p>Bill No. 10</p> <p>Metalwork</p>					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 11</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 8</p> <p>Classroom Block 5 & Head of Department</p> <p>Bill No. 11</p> <p>Plastering</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>Colour</u></p> <p>Coloured granolithic shall be tinted with an approved colouring pigment mixed into the granolithic in the proportion of 2.5kg pigment per pocket of cement, of uniform appearance and consistent colour throughout</p> <p><u>SCREEDS</u></p> <p><u>Self levelling Screeds on concrete</u></p>					
1	30mm Thick self levelling screed on floors and landings	m2	312			
	Carried to Collection				R	
	Section No. 8 Classroom Block 5 & Head of Department Bill No. 11 Plastering					

Item No	Description	Unit	Quantity	Rate	Amount
2	<p><u>INTERNAL PLASTER</u></p> <p><u>Plaster mix for rough brick walls, composed of 1 part : and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls, in accordance with SANS 50197-1</u></p> <p>On walls</p>	m2	438		
	Carried to Collection			R	
	Section No. 8 Classroom Block 5 & Head of Department Bill No. 11 Plastering				

245.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 12</u></p> <p><u>GLAZING</u></p> <p><u>Float glass</u></p> <p>The term "float glass" is used for monolithic annealed glass</p> <p><u>Laminated glass</u></p> <p><u>GLAZING TO STEEL WITH PUTTY</u></p> <p><u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than 0.5m² and 6mm safety glass for all panels lower than 900mm above FFL (Fit obscure glazing in toilets and ablutions). All to comply with National building regulations see also glazing preambles for minimum standards.</u></p>					
1	Panes exceeding 0,1m ² and not exceeding 0,5m ²	m2	59			
	<p>Carried Forward to Summary of Section No. 8</p> <p>Section No. 8 Classroom Block 5 & Head of Department Bill No. 12 Glazing</p>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 13</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 8</p> <p>Classroom Block 5 & Head of Department</p> <p>Bill No. 13</p> <p>Paintwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	438			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
2	On ceilings	m2	238			
3	On cornice not exceeding 300mm girth	m	164			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
4	On window frames	m2	51			
	<u>Contractors Gloss Enamel (colour to be selected) to new interior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
5	On door frames	m2	17			
	<u>ON WOOD</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
6	On doors	m2	136			
	Carried to Collection				R	
	Section No. 8 Classroom Block 5 & Head of Department Bill No. 13 Paintwork					

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251.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>The following are typical examples of descriptions of "nature of ground" Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 9 Classroom Block 4 Bill No. 1 Earthworks (Provisional)</p>			R		

R

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	30			
	<u>Compaction of ground surfaces</u>					
9	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density LAYER WORK	m2	331			
	<u>Keeping excavations free of water</u>					
10	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
11	In prescribed stock piles on site	m3	59			
	<u>Earthfilling of 150mm thick G7 natural gravel compacted to 95% Mod Asstho Density</u>					
12	Under surface beds in 150mm layer	m3	50			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	5			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	2			
	Carried to Collection				R	
	Section No. 9					
	Classroom Block 4					
	Bill No. 1					
	Earthworks (Provisional)					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 9</p> <p>Classroom Block 4</p> <p>Bill No. 2</p> <p>Concrete, Formwork & Reinforcement</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15MPa/19mm concrete</u></p>					
1	Surface blinding under footings and bases	m3	5			
	<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p>					
2	Bases	m3	1			
3	Strip footings	m3	22			
	<p><u>REINFORCED CONCRETE CAST IN FORMWORK</u></p> <p><u>25MPa/19mm concrete</u></p>					
4	Surface beds on waterproofing (including thickenings)	m3	38			
5	Ramps	m3	2			
6	Stairs including landings, beams and inverted beams	m3	4			
	Carried to Collection				R	
	Section No. 9					
	Classroom Block 4					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>TEST CUBES</u>					
7	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	10			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
8	Surface beds, slabs, etc to falls	m2	261			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>					
9	Surface beds, slabs, etc to falls and currents	m2	75			
	<u>20 MPa non-shrink grout</u>					
10	Bedding approximately 100mm thick under 50 x 50mm base plate	No	9			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
11	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	161			
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
12	Not exceeding 300mm high to edges of surface beds	m	200			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
13	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	19			
14	3 x 40mm Saw-cut joints in top of concrete	m	66			
	Carried to Collection				R	
	Section No. 9					
	Classroom Block 4					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount
15	Horizontal construction joints through concrete including thick cement slurry to one face Surface beds not exceeding 300mm thick as per engineers details <u>REINFORCEMENT</u> <u>Mild steel reinforcement to structural concrete work</u>	m	81		
16	Y10mm Diameter bars	t	1.00		
17	Y8mm Diameter bars	t	1.00		
18	Fabric reinforcement Type 193 fabric reinforcement in concrete surface beds etc	m ²	336		
Carried to Collection					R
Section No. 9 Classroom Block 4 Bill No. 2 Concrete, Formwork & Reinforcement					

<div>Section No. 9</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 9</div> <div>Section No. 9</div> <div>Classroom Block 4</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 9</p> <p>Classroom Block 4</p> <p>Bill No. 3</p> <p>Masonry</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p> <p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>					
1	300mm Hollow walls of two half brick skins	m2	90			
	Carried to Collection				R	
	Section No. 9 Classroom Block 4 Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SUPERSTRUCTURE</u>					
	<u>Brickwork of NFP bricks in class II mortar in load bearing walls</u>					
2	Half brick walls	m2	2			
3	Half brick walls in beamfilling	m2	10			
4	One brick walls	m2	420			
	<u>Steel bar reinforcement</u>					
5	8mm Diameter mild steel bars built in horizontally	t	1.00			
6	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>					
7	75 x 110mm Lintels in lengths not exceeding 3m	m	10			
8	75 x 220mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10			
9	220 x 110mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	10			
	<u>Turning pieces to lintels etc</u>					
10	220mm Wide turning pieces	m	5			
	<u>Air bricks etc</u>					
11	229 x 152mm Terracotta vermin proof air brick	No	4			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
12	Extra over brickwork for face brickwork for one side of one brick wall	m2	268			
	Carried to Collection				R	
	Section No. 9 Classroom Block 4 Bill No. 3 Masonry					

R

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 4</u></p> <p><u>WATERPROOFING</u></p> <p><u>Waterproofing</u></p> <p>Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><u>DAMPPROOFING OF WALLS AND FLOORS</u></p> <p><u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u></p>					
1	<p>In walls</p> <p><u>One layer 250 micron green polyethylene waterproof sheeting SANS 952-1985 type C sealed at laps with PVC self-adhesive tape</u></p>	m2	19			
2	Under surface beds	m2	334			
3	Vertically between walls	m2	10			
4	<p><u>Mastic or silicone sealing compound including backing cord, bond breaker, primer, etc</u></p> <p>6 x 10mm In saw cut joints in floors</p>	m	262			
	<p>Carried Forward to Summary of Section No. 9</p> <p>Section No. 9 Classroom Block 4 Bill No. 4 Waterproofing</p>				R	

267.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 6</u></p> <p><u>CARPENTRY & JOINERY</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Decorative thermosetting plastic laminate covering</u></p> <p>Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Trusses are at maximum 750mm centres</p> <p>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trussesRoof covering is type on purlins</p> <p>Ceiling is 6mm sheeting edge flush plastered on 38 x 38mm brandering</p> <p>References given in descriptions refer to the respective types of trusses detailed on the architect's/engineer's drawings numbered C100 RevA annexed to these bills of quantities accompanying these bills of quantities for tender purposes Dimensions in descriptions of trusses are nominal and actual measurements are to be obtained from the architect/engineer and/or taken on site before design or fabrication commences</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 9 Classroom Block 4 Bill No. 6 Carpentry and Joinery</p>				
				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 336m2 on plan x 1.893mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	108			
	<u>SKIRTINGS</u>					
	<u>Timber Skirting, size 18 x 100mm plugged and screwed to wall surface.</u>					
3	18mm x 100mm High skirtings	m	10			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
4	78 x 78mm Branders	m	7 225			
5	250 x 20mm Barge boards	m	11			
6	250 x 20mm Fascias	m	71			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
	<u>DOORS ETC</u>					
7	813 x 345mm Fanlight and of 813 x 2032 x 40 solid core flush masonite panel door. 6.4mm clear fixed glazing on fanlight	No	5			
	Carried to Collection				R	
	Section No. 9 Classroom Block 4 Bill No. 6 Carpentry and Joinery					

270.

271.

272.

Item No	Description	Unit	Quantity	Rate	Amount	
2	<u>Cornice, perimeter trims, etc to ceiling</u>	m	164			
	<u>Gypsum cornice, 75 x 75mm high</u>					
	Cornice					
Carried to Collection					R	
Section No. 9						
Classroom Block 4						
Bill No. 7						
Ceilings, Partitions and Access Flooring						

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 8</u></p> <p><u>FLOOR COVERINGS, WALL LININGS, ETC.</u></p> <p><u>Fixing</u></p> <p>Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc FLOOR COVERINGS</p> <p><u>Fully flexible vinyl floor tiles, size 300 x 300 x 2.5mm thick, manufactured in accordance with SANS 786:2000, laid in adhesive spread with a trowel using Leveller when required and rolled with 68kg three section metal roller on completion.</u></p>					
1	<p>On new screeded floors</p> <p><u>Fully flexible vinyl floor skirting 2.5mm thick, manufactured in accordance with SANS 786:2000, laid in adhesive spread with a trowel using Leveller when required and rolled with 68kg three section metal roller on completion.</u></p>	m2	238			
2	100mm High skirting	m	163			
	<p>Carried Forward to Summary of Section No. 9</p> <p>Section No. 9 Classroom Block 4 Bill No. 8 Floor coverings, Wall Linings, etc</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 9</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration HINGES, BOLTS, ETC</p> <p><u>Manufactured by Dorma or equally approved</u></p> <p><u>Measured per door</u></p>					
1	Stainless Steel floor mounted door stop, size 24 x 45mm, 2 x UNION two ball bearing butt hinge Stainless Steel finish, 4 x lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	8			
	Carried Forward to Summary of Section No. 9				R	
	Section No. 9 Classroom Block 4 Bill No. 9 Ironmongery					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 10</u></p> <p><u>STRUCTURAL STEELWORK</u></p> <p>Consideration is to be given in specific applications (e.g. where "heavy" steel structures such as in industrial plants, towers for mine shafts, etc are dominant) to implement the principles laid down by the "Measurement for Structural Steelwork" as prepared and recommended by the South African Institute of Steel Construction or any other appropriate principles This bill is, however, based on the building work measuring system</p> <p>Finishing-off painting is to be included in this trade</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p><u>STEEL COLUMNS AND BEAMS</u></p> <p><u>Welded beams and purlins etc. with flat bearer and connection plates, bolted to steel</u></p>					
1	60 x 60mm SHS stanchions	t	3.00			
	<p>Carried Forward to Summary of Section No. 9</p> <p>Section No. 9 Classroom Block 4 Bill No. 10 Structural Steelwork</p>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 11</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work: 1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 9</p> <p>Classroom Block 4</p> <p>Bill No. 11</p> <p>Metalwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process 4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked 5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>GALVANISED PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Double rebated frames suitable for one brick walls WITH 1 PAIR OF HINGES</u></p>					
1	<p>Frame for 813 x 2032 x 40mm door and fixed fanlight 235mm high</p> <p><u>GALVANISED STEEL WINDOWS, DOORS, ETC</u></p> <p><u>Standard school windows</u></p>	No	8			
2	<p>Top & side hung standard steel window, finished in Grey oxide primer, size 1 302mm x 1 445mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant</p>	No	35			
	Carried to Collection				R	
	<p>Section No. 9 Classroom Block 4 Bill No. 11 Metalwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 12</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 9</p> <p>Classroom Block 4</p> <p>Bill No. 12</p> <p>Plastering</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>SCREEDS</u></p> <p><u>Self levelling Screeds on concrete</u></p>					
1	<p>30mm Thick self levelling screed on floors and landings</p> <p><u>INTERNAL PLASTER</u></p> <p><u>Plaster mix for rough brick walls, composed of 1 part Surechem 32,5R cement (Code: CEM II 32,5R) and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls. Surechem is to be manufactured in accordance with SANS 50197-1</u></p>	m2	312			
2	<p>On walls</p>	m2	438			
	Carried to Collection				R	
	<p>Section No. 9</p> <p>Classroom Block 4</p> <p>Bill No. 12</p> <p>Plastering</p>					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 9</u> <u>BILL NO. 13</u> <u>GLAZING</u> <u>Float glass</u> The term "float glass" is used for monolithic annealed glass <u>Laminated glass</u> <u>GLAZING TO STEEL WITH PUTTY</u> <u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than and 6mm safety glass for all panels lower than 900mm above FFL (Fit obscure glazing in toilets and ablutions). All to comply with National building regulations see also glazing preambles for minimum standards.</u>					
1	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u> <u>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges, fixed with double sided adhesive tape and silicone</u>	m2	68			
2	450mm x 600mm High quality mirror complete with bevelled edges	No	26			
	<p style="text-align: right;">Carried Forward to Summary of Section No. 9</p> <p>Section No. 9 Classroom Block 4 Bill No. 13 Glazing</p>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 9</u></p> <p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 9</p> <p>Classroom Block 4</p> <p>Bill No. 14</p> <p>Paintwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	438			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
2	On ceilings	m2	238			
3	On cornice not exceeding 300mm girth	m	164			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
4	On window frames	m2	51			
	<u>Contractors Gloss Enamel (colour to be selected) to new interior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
5	On door frames	m2	17			
	<u>ON WOOD</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
6	On doors	m2	136			
	Carried to Collection				R	
	Section No. 9 Classroom Block 4 Bill No. 14 Paintwork					

Item No	Description	Unit	Quantity	Rate	Amount	
7	<u>Painted with Carbolineum paint as per architects specification</u> On exposed trusses	m2	21			
Carried to Collection					R	
Section No. 9 Classroom Block 4 Bill No. 14 Paintwork						

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289.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p>The following are typical examples of descriptions of "nature of ground" Nature of ground</p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>				
	<p style="text-align: right;">Carried to Collection</p>			R	
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 1</p> <p>Earthworks (Provisional)</p>				

R

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	50			
	<u>Compaction of ground surfaces</u>					
9	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density LAYER WORK	m2	582			
	<u>Keeping excavations free of water</u>					
10	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
11	In prescribed stock piles on site to trenches and holes	m3	106			
	<u>Filling of natural gravel material G7 supplied by the contractor, compacted to 95% Mod AASHTO density</u>					
12	Under floors, steps, pavings, etc	m3	88			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	5			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	2			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 1 Earthworks (Provisional)					

293.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 2</p> <p>Concrete, Formwork & Reinforcement</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15MPa/19mm concrete</u></p>					
1	Surface blinding under footings and bases	m3	12			
	<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p>					
2	Bases	m3	4			
3	Strip footings	m3	26			
	<p><u>REINFORCED CONCRETE CAST IN FORMWORK</u></p> <p><u>25MPa/19mm concrete</u></p>					
4	Surface beds on waterproofing (including thickenings)	m3	52			
5	Ramps	m3	5			
6	Ring Beams or Isolated beams	m3	3			
	Carried to Collection				R	
	Section No. 10					
	New Grade R Classrooms					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount	
7	Stairs including landings, beams and inverted beams	m3	4			
	<u>TEST CUBES</u>					
8	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	16			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
9	Surface beds, slabs, etc to falls	m2	410			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>					
10	Surface beds, slabs, etc to falls and currents	m2	144			
	<u>20 MPa non-shrink grout</u>					
11	Bedding approximately 100mm thick under 50 x 50mm base plate	No	17			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
12	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	283			
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Smooth formwork to sides and soffits</u>					
13	Beams propped up exceeding 1.5m and not exceeding 3m high including section propped on sloping surfaces	m2	36			
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
14	Not exceeding 300mm high to edges of surface beds	m	283			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 2 Concrete, Formwork & Reinforcement					

297.

<div>Section No. 10</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 10</div> <div>Section No. 10</div> <div>New Grade R Classrooms</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 3</p> <p>Masonry</p>					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p> <p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>				
1	300mm Hollow walls of two half brick skins	m2	158		
2	330 x 330mm Brick square brick piers in foundations at 680mm high	No	17		
	Carried to Collection			R	
	Section No. 10 New Grade R Classrooms Bill No. 3 Masonry				

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SUPERSTRUCTURE</u>					
	<u>Brickwork of NFP bricks in class II mortar in load bearing walls</u>					
3	Half brick walls	m2	246			
4	Half brick walls in beamfilling	m2	18			
5	One brick walls	m2	544			
6	330 x 330mm Brick square brick piers in height 3.34m	No	17			
	<u>Steel bar reinforcement</u>					
7	8mm Diameter mild steel bars built in horizontally	t	1.00			
8	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>					
9	75 x 110mm Lintels in lengths not exceeding 3m	m	10			
10	75 x 220mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10			
11	220 x 110mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	10			
	<u>Turning pieces to lintels etc</u>					
12	220mm Wide turning pieces	m	45			
	<u>Air bricks etc</u>					
13	229 x 152mm Terracotta vermin proof air brick	No	4			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
14	Extra over brickwork for face brickwork for one side of one brick wall	m2	441			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 3 Masonry					

R

<div>Section No. 10</div> <div>Bill No. 3</div> <div>Masonry</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 10</div> <div>Section No. 10</div> <div>New Grade R Classrooms</div> <div>Bill No. 3</div> <div>Masonry</div>				R	

304.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 10</u>					
	<u>BILL NO. 5</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	Where battens for roof coverings form part of the plate nailed timber roof truss design it shall be included under the roof construction in the "Carpentry and Joinery" trade and not under this trade					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	575			
2	Side cladding not exceeding 250mm	m2	23			
3	Ridge or Valley flashing	m	74			
4	Ridge Closer	m	74			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
5	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	407			
	Carried Forward to Summary of Section No. 10					
	Section No. 10					
	New Grade R Classrooms					
	Bill No. 5					
	Roof coverings, Claddings, etc					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 6</u></p> <p><u>CARPENTRY & JOINERY</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Decorative thermosetting plastic laminate covering</u></p> <p>Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Trusses are at maximum 750mm centres</p> <p>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trussesRoof covering is type on purlins</p> <p>Ceiling is 6mm sheeting edge flush plastered on 38 x 38mm brandering</p> <p>References given in descriptions refer to the respective types of trusses detailed on the architect's/engineer's drawings numbered C100 RevA annexed to these bills of quantities accompanying these bills of quantities for tender purposes Dimensions in descriptions of trusses are nominal and actual measurements are to be obtained from the architect/engineer and/or taken on site before design or fabrication commences</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 10 New Grade R Classrooms Bill No. 6 Carpentry and Joinery</p>				
				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 554m2 overall on plan x 1.893mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	139			
	<u>SKIRTINGS</u>					
	<u>Timber Skirting, size 18 x 100mm plugged and screwed to wall surface.</u>					
3	18mm x 100mm High skirtings	m	196			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
4	78 x 78mm Branders	m	2 661			
5	250 x 20mm Fascias	m	91			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
	<u>DOORS ETC</u>					
6	813 X 2032 X 40mm Solid core flush masonite panel door	No	20			
7	762 X 2032 X 40mm Solid core flush masonite panel door	No	8			
8	1025 X 2032 X 40mm Solid core flush masonite panel door	No	8			
9	900 X 2032 X 40mm Solid core flush masonite panel door	No	4			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 6 Carpentry and Joinery					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Wrought Meranti or similar</u>					
10	Standard 20mm Pinning or notice board 1500 x 1500mm high glued to backboard fixed with timber 38 x 38mm Grounds, glued too plastered walls	No	4			
	<u>White boards</u>					
11	Classroom white boards not exceeding 8m2 with 38 x38mm Grounds, fixed to plastered walls	No	4			
	<u>CUPBOARDS AND COUNTER TOP JOINERY TO KITCHENS, BEDROOMS, TOPS ETC</u>					
	<u>Cupboards and shelving etc.</u> <u>Refer to Sediko - Sheet - DBSA-JBT-S1-ARCH-DWG107 Grade R Plans</u>					
12	Bult in cupboard as per architectural details	No	4			
13	3-46-00 Stat cupboard : 4 adjustable shelves & lock doors Drawer as per architects details complete	No	4			
14	Specialised bag shelving of various sizes as per architectural details	No	8			
	<u>Counter Tops</u> <u>Refer to Sediko - Sheet - DBSA-JBT-S1-ARCH-DWG107 Grade R Plans</u>					
15	Counter Top to underside of window (W19) as per architecture details	No	4			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 6 Carpentry and Joinery					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 9</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration</p> <p><u>HINGES, BOLTS, ETC</u></p> <p><u>Manufactured by Dorma</u></p> <p><u>Measured per door</u></p>					
1	Stainless Steel floor mounted door stop size 24 x 45mm, 2 x two ball bearing butt hinge with Stainless Steel finish. 4 Lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	24			
2	Stainless steel indicator bolts with Stainless Steel finish. 2 x two ball bearing butt hinge with Stainless Steel finish. Stainless Steel 152 x 76mm push plate, size 152 x 76mm. Stainless Steel floor mounted door stop, size 24 x 45mm	No	4			
3	Stainless steel indicator bolts with Stainless Steel finish. 2 x two ball bearing butt hinge with Stainless Steel finish. Stainless Steel 152 x 76mm push plate, size 152 x 76mm. Stainless Steel floor mounted door stop, size 24 x 45mm	No	8			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 9 Ironmongery					

Item No	Description	Unit	Quantity	Rate	Amount	
4	Stainless steel indicator bolts with Stainless Steel finish. 2 x two ball bearing butt hinge with Stainless Steel finish. Stainless Steel 152 x 76mm push plate, size 152 x 76mm. Stainless Steel floor mounted door stop, size 24 x 45mm	No	4			
	<u>PUSH PLATES AND KICK PLATES</u>					
	<u>4mm Thick anodised aluminium plates countersunk screwed along edges at not exceeding 200mm centres</u>					
5	813 x 250mm Kick plate	No	12			
	<u>DOOR CLOSERS</u>					
	<u>Manufactured by "Dorma</u>					
6	Door closer	No	4			
	<u>BATHROOM FITTINGS</u>					
	<u>Manufactured by Dorma</u>					
7	San 002 - PARAPLEGIC LEFT HAND DOG RAIL Standard 300 x 300 X300 x 80mm Projecting dog leg side rail as by Stainless Steel Design	No	4			
8	San 004 - PARAPLEGIC BACK GRAB RAIL Standard 800 long x 150mm projecting straight disabled rail as by stainless steel design.	No	4			
9	San 009 - WASTE BIN Waste container - 1,25mm thick 18/10 satin stainless steel perforated waste containers, size 380x410x205mm deep, with 180 degree radius front and perforated fascia pattern, waste bin capacity of 23 litres, with lock, plugged and screwed to the wall with stainless steel screws	No	4			
10	San 010 - ROBE HOOK - chrome plated robe hook size 89 x 57mm wide, plugged and screwed to wall	No	12			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 9 Ironmongery					

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Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 10</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work: 1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>				
	Carried to Collection			R	
	Section No. 10 New Grade R Classrooms Bill No. 10 Metalwork				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process 4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked 5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>GALVANISED PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Rebated frames suitable for half brick walls with hinges</u></p> <p>1 Frame for 813 X 2032 X 40mm door No 8</p> <p>2 Frame for 762 X 2032 X 40mm door No 8</p> <p><u>1,2mm Double rebated frames suitable for one brick walls WITH 1 PAIR OF HINGES</u></p> <p>3 Frame for 813 X 2032 X 40mm door No 12</p> <p>4 Frame for 1000 x 23032 x 400mm door No 4</p> <p>5 Frame for 900 X 2032 X 40mm door No 8</p> <p><u>Preparation of frames for fixing of ironmongery</u></p> <p>6 Arm of door closer No 4</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 10 New Grade R Classrooms Bill No. 10 Metalwork</p>					
					R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>GALVANISED STEEL WINDOWS, DOORS, ETC</u>					
	<u>Standard school windows</u>					
7	Top hung standard steel window, finished in Grey oxide primer, size 889mm x 854mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant	No	48			
8	Top hung standard steel window, finished in Grey oxide primer, size 1 022mm x 654mm high, fitted with B1 burglar bars. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant	No	8			
	<u>ALUMINIUM WINDOWS, DOORS, ETC</u>					
	<u>Aluminium windows</u>					
9	Custom-made aluminium vertical pivot window with dimensions and configuration as indicated. Window to comply strictly to SABS as well as the AAAMSA standards concerning sections, size and opening section. Joints between window frame and wall opening to be sealed water tight with an approved sealant Standard aluminium frame in configuration as shown with or without opening sections as shown, complete with heavy-duty hinges, latches and restrictors (max. 100mm). Waterproof frame surround and joints with an approved soft seal. Polyester powder coated. All to AAAMSA standards and Architects approval.	No	4			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 10 Metalwork					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 11</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 11</p> <p>Plastering</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>Colour</u></p> <p>Coloured granolithic shall be tinted with an approved colouring pigment mixed into the granolithic in the proportion of 2.5kg pigment per pocket of cement, of uniform appearance and consistent colour throughout</p> <p><u>SCREEDS</u></p> <p><u>Self Levelling Screeds on concrete</u></p>					
1	30mm Thick self levelling screed on floors and landings	m2	468			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 11 Plastering					

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Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 12</u></p> <p><u>TILING</u></p> <p><u>Patterns</u></p> <p>Unless otherwise described, tiles shall be laid with continuous joints in both directions</p> <p><u>Fixing</u></p> <p>Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding</p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat</p> <p>Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles</p> <p><u>WALL TILING</u></p> <p><u>Ceramic tiles size 100 x 200mm, fixed to internal wall plaster backing with tile adhesive mixed with Bond in lieu of water with joints continuous in both directions and grouted</u></p> <p>1 On walls</p> <p>m2 264</p> <p><u>FLOOR TILING</u></p> <p><u>Ceramic tiles size 300 x 300mm, fixed to internal wall plaster backing with tile adhesive mixed with Bond in lieu of water with joints continuous in both directions and grouted</u></p> <p>2 On floors and landings</p> <p>m2 5</p> <p>Carried Forward to Summary of Section No. 10</p> <p>Section No. 10 New Grade R Classrooms Bill No. 12 Tiling</p>				
				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 13</u></p> <p><u>PLUMBING & DRAINAGE (PROVISIONAL)</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site French drains</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p>					
	Carried to Collection			R		
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>PVC-U pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings Polypropylene pipes</p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p>					
	Carried to Collection				R	
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p> <p><u>General</u></p> <p>Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)</p> <p>Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)</p>					
	Carried to Collection			R		
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 13</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>As-built drawings</u>					
	<u>SANITARYWARE</u>					
1	San 005 - PARAPLEGIC WC Sanitaryware Paraplegic vitreous china washdown suite comprising 90Ø outlet open rim pan flushing valve including lid and fitments with heavy duty seat. Plumbing: 20mm Brushed chrome Econoflush front access junior concealed toilet flush master with integral shut-off valve, box stainless steel faceplate and chrome plated pushbutton assembly (includes flush pipes, elbow and pan connector).	No	4			
2	San 008 Sanitaryware vitreous china 510mm x 405mm rounded Hibiscus basin with one or two tap hole, including integrated overflow and chain stay hole. Bolted to wall with 2x 10mm bolts. Basin Mixer single lever with pop up waste. 1_ 2" BSP female inlets. SANS 1480\ Paraplegic Toilets to be fitted with two MEDICAL Pillar taps elbow action. 1/2" BSP MI SANS 226 TYPE 2.	No	12			
3	Sanitary ware ceramic fireclay 585 x 435 mm hospital basin, including ¼ turns wrist action mixer, c.p. waste, overflow tube. Two fixing screws, plugs and c.p. caps. Supplied with two tapholes. with two MEDICAL Pillar taps elbow action. 1/2" BSP MI SANS 226 TYPE 2.	No	4			
4	San 019 - Junior WC white vitreous China Junior School Pan, 8.3kg, pan set White 1,95kg Vitreous China seat. Plumbing: 20mm Brushed chrome Econoflush front access junior concealed toilet flushmaster with integral shut-off valve, box stainless steel faceplate and chrome plated pushbutton assembly (includes flushpipes, elbow and pan connector).	No	8			
	<u>stainless steel fittings</u>					
5	SS003 - STAINLESS STEEL INSET SINK (900x500). Grade 304 18/10 polished stainless steel left hand inset sink (code: 820000), size 900 x 500mm wide with one 410 x 343 x 187 deep bowl, fitted onto cupboard or wall including 90mm waste fitting and PVC trap. Single Sink Mixer with Aerated swivel outlet 1 1/2 " BSP Female outlet. SANS 1480. All included accessories.	No	4			
6	50mm Waste pipe	m	16			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 13 Plumbing & Drainage (Provisional)					

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<div>Section No. 10</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 10</div> <div>Section No. 10</div> <div>New Grade R Classrooms</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div>				R	

332.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 10</u></p> <p><u>BILL NO. 15</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 10</p> <p>New Grade R Classrooms</p> <p>Bill No. 15</p> <p>Paintwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	840			
2	On external walls	m2	65			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
3	On ceilings	m2	367			
4	On cornice not exceeding 300mm girth	m	354			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
5	On door frames	m2	10			
	<u>ON WOOD</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
6	On doors	m2	89			
	<u>Painted with Carbolineum paint as per architects specification</u>					
7	On exposed trusses	m2	40			
	Carried to Collection				R	
	Section No. 10 New Grade R Classrooms Bill No. 15 Paintwork					

[illegible]

336.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>The following are typical examples of descriptions of "nature of ground" Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 11 New Ablutions Bill No. 1 Earthworks (Provisional)</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	References such as "G1", "G2", etc and "C1", "C2", etc in descriptions of filling and layer work materials refer to corresponding references in the document "Guidelines for Road Construction Materials. TRH 14 : 1985" compiled by the Committee of State Road Authorities and the properties set out therein for each kind shall be applicable to the respective materials described hereinafter User note					
	When no information regarding density and other tests is available the following preamble in respect of testing may be inserted					
	<u>Testing</u>					
	Prices for filling are to include for all necessary density and other tests					
	<u>Site clearance</u>					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m2	69			
	<u>EXCAVATION, FILLING, ETC</u>					
	<u>Excavation in earth not exceeding 2m deep</u>					
2	Trenches and holes	m3	32			
	<u>Extra over trench and hole excavations in earth for breaking up and removing</u>					
3	Soft rock	m3	2			
4	Hard rock	m3	1			
	<u>Extra over bulk excavations in earth for breaking up and removing</u>					
5	Brickwork	m3	1			
6	Unreinforced concrete	m3	1			
7	Reinforced concrete	m3	1			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 1 Earthworks (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	11			
	<u>Compaction of ground surfaces</u>					
9	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density LAYER WORK	m2	69			
	<u>Keeping excavations free of water</u>					
10	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
11	In prescribed stock piles on site to trenches and holes	m3	22			
	<u>Filling of natural gravel material G7 supplied by the contractor, compacted to 95% Mod AASHTO density</u>					
12	Under floors, steps, pavings, etc	m3	11			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	5			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	2			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 1 Earthworks (Provisional)					

340.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	Carried to Collection					
	Section No. 11					
	New Ablutions					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

342.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>TEST CUBES</u>					
5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	2			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
6	Surface beds, slabs, etc to falls	m2	69			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	36			
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
8	Not exceeding 300mm high to edges of surface beds	m	58			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
9	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	36			
10	3 x 40mm Saw-cut joints in top of concrete	m	7			
	<u>Horizontal construction joints through concrete including thick cement slurry to one face</u>					
11	Surface beds not exceeding 300mmm thick as per engineers details	m	24			
	<u>REINFORCEMENT</u>					
	<u>Mild steel reinforcement to structural concrete work</u>					
12	Y10mm Diameter bars	t	1.00			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 2 Concrete, Formwork & Reinforcement					

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<div>Section No. 11</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 11</div> <div>Section No. 11</div> <div>New Ablutions</div> <div>Bill No. 2</div> <div>Concrete, Formwork & Reinforcement</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 11</p> <p>New Ablutions</p> <p>Bill No. 3</p> <p>Masonry</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p> <p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>					
1	300mm Hollow walls of two half brick skins	m2	41			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SUPERSTRUCTURE</u>					
	<u>Brickwork of NFP bricks in class II mortar in load bearing walls</u>					
2	Half brick walls in beamfilling	m2	7			
3	One brick walls	m2	176			
	<u>Steel bar reinforcement</u>					
4	8mm Diameter mild steel bars built in horizontally	t	1.00			
5	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>					
6	75 x 110mm Lintels in lengths not exceeding 3m	m	10			
7	75 x 220mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10			
8	220 x 110mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	10			
	<u>Turning pieces to lintels etc</u>					
9	220mm Wide turning pieces	m	36			
	<u>Air bricks etc</u>					
10	229 x 152mm Terracotta vermin proof air brick	No	2			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
11	Extra over brickwork for face brickwork for one side of one brick wall	m2	10			
12	Extra over brickwork for face brickwork for one side of one brick wall internally up to 900mm high above FFL	m2	49			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 3 Masonry					

R

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 11</u> <u>BILL NO. 4</u> <u>WATERPROOFING</u> <u>Waterproofing</u> Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs <u>DAMPPROOFING OF WALLS AND FLOORS</u> <u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u>					
1	In walls <u>One layer 250 micron green polyethylene waterproof sheeting SANS 952-1985 type C sealed at laps with PVC self-adhesive tape</u>	m2	13			
2	Under surface beds	m2	69			
3	Vertically between walls	m2	10			
4	<u>Mastic or silicone sealing compound including backing cord, bond breaker, primer, etc</u> 6 x 10mm In saw cut joints in floors	m	116			
	Carried Forward to Summary of Section No. 11 Section No. 11 New Ablutions Bill No. 4 Waterproofing				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 11</u>					
	<u>BILL NO. 5</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	Where battens for roof coverings form part of the plate nailed timber roof truss design it shall be included under the roof construction in the "Carpentry and Joinery" trade and not under this trade					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	59			
2	Side cladding not exceeding 250mm	m2	5			
3	Ridge or Valley flashing	m	6			
4	Ridge Closer	m	9			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
5	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	47			
	Carried Forward to Summary of Section No. 11					
	Section No. 11					
	New Ablutions					
	Bill No. 5					
	Roof coverings, Claddings, etc					

353.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 12.2 x 6.5m overall on plan x 1.893mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	30			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
3	78 x 78mm Branders	m	135			
4	250 x 20mm Fascias	m	18			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
	<u>DOORS ETC</u>					
5	813 X 2032 X 40mm Solid core flush masonite panel door	No	3			
6	762 X 2032 X 40mm Solid core flush masonite panel door	No	8			
	<u>WINDOWS</u>					
	<u>Standard hardboard</u>					
7	10mm Duct covers in 500mm widths, fixed at 250mm centres along edges with chromium plated dome headed screws in cup washers	m2	27			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 6 Carpentry and Joinery					

355.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 7</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>NAILED-UP CEILINGS</u></p> <p><u>Installation of RhinoBoard 6.4mm including 38 x 38mm SA Pine branderling at 400mm centres in one direction, ceiling screws at 150mm c/c to timber at max 400mm c/c to tie beam. Including concealed grid with staggered joints, M strips and spot screw heards. Plus Isover 115mm thick Aerolite thermal ceiling insulation</u></p>				
1	Ceilings nailed-up not exceeding 1m below roof trusses	m2	20		
	Carried to Collection			R	
	Section No. 11 New Ablutions Bill No. 7 Ceilings, Partitions and Access Flooring				

357.

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359.

360.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>DOOR CLOSERS</u>					
	<u>Manufactured by "Dorma</u>					
4	Door closer	No	3			
	<u>BATHROOM FITTINGS</u>					
	<u>Manufactured by Dorma or equally approved</u>					
5	San 006 - TOILET ROLL HOLDER Standard stainless steel wall mounted lockable toilet roll holder	No	8			
6	San 007 - SOAP DISPENSER Standard stainless steel wall mounted soap dispenser	No	7			
7	San 009 - WASTE BIN Waste container - 1,25mm thick 18/10 satin stainless steel perforated waste containers, size 380x410x205mm deep, with 180 degree radius front and perforated facia pattern, waste bin capacity of 23 litres, with lock, plugged and screwed to the wall with stainless steel screws	No	6			
8	San 010 - ROBE HOOK - chrome plated robe hook size 89 x 57mm wide, plugged and screwed to wall	No	5			
	<u>STEEL LOCKERS</u>					
	<u>steel lockers with standard baked enamel finish</u>					
9	Set of steel lockers as per architectural details and design	No	2			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 9 Ironmongery					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 10</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work:1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>				
	<p style="text-align: right;">Carried to Collection</p>			R	
	<p>Section No. 11</p> <p>New Ablutions</p> <p>Bill No. 10</p> <p>Metalwork</p>				

R

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 11</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 11</p> <p>New Ablutions</p> <p>Bill No. 11</p> <p>Plastering</p>					

368.

369.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 12</u></p> <p><u>TILING</u></p> <p><u>Patterns</u></p> <p>Unless otherwise described, tiles shall be laid with continuous joints in both directions</p> <p><u>Fixing</u></p> <p>Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding</p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat</p> <p>Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles</p> <p><u>WALL TILING</u></p> <p><u>Ceramic tiles size 100 x 200mm, fixed to internal wall plaster backing with tile adhesive mixed with Bond in lieu of water with joints continuous in both directions and grouted</u></p>				
1	On walls	m2	15		
2	Skirting tile 100mm max high	m	40		
	Carried to Collection			R	
	Section No. 11 New Ablutions Bill No. 12 Tiling				

Item No	Description	Unit	Quantity	Rate	Amount	
3	<u>FLOOR TILING</u> <u>Ceramic tiles size 300 x 300mm, fixed to internal wall plaster backing with tile adhesive mixed with Bond in lieu of water with joints continuous in both directions and grouted</u> On floors and landings	m2	20			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 12 Tiling					

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Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 13</u></p> <p><u>PLUMBING & DRAINAGE (PROVISIONAL)</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site French drains</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p>				
	Carried to Collection			R	
	Section No. 11 New Ablutions Bill No. 13 Plumbing & Drainage (Provisional)				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>PVC-U pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings Polypropylene pipes</p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p>					
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 13 Plumbing & Drainage (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p> <p><u>General</u></p> <p>Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)</p> <p>Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)</p>					
	Carried to Collection			R		
	Section No. 11 New Ablutions Bill No. 13 Plumbing & Drainage (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>As-built drawings</u>					
	<u>SANITARYWARE</u>					
1	San 001 vitreous china "Hibiscus" close coupled 90° outlet pan rim washdown pan and matching 9 litre front single flush cistern complete with lid and fitment. Top dual flushing option. White. Plumbing: 20mm Brushed chrome Econoflush front access junior concealed toilet flushmaster with integral shut-off valve, box stainless steel faceplate and chrome plated pushbutton assembly (includes flushpipes, elbow and pan connector).	No	8			
2	San 008 Sanitaryware vitreous china 510mm x 405mm rounded Hibiscus basin with one or two tap hole, including integrated overflow and chain stay hole. Bolted to wall with 2x 10mm bolts. Basin Mixer single lever with pop up waste. 1_ 2" BSP female inlets. SANS 1480\ Paraplegic Toilets to be fitted with two MEDICAL Pillar taps elbow action. 1/2" BSP MI SANS 226 TYPE 2.	No	6			
3	San 011 - URINAL SANITARYWARE 565 x 275 x 310mm White vitreous china wall mounted back inlet urinal including 38mm chromium plated domical grating and chromium plated back inlet spreader and urinal division fixed with and including fixing screws and hanger brackets.	No	3			
4	SANITARYWARE vitreous china Urinal division, complete with fixing screw and hanger bracket.	No	2			
	<u>SOIL DRAINAGE</u>					
	<u>All pipework includes fittings, joints etc. calculated by specialist pricing BOQ</u>					
5	50mm Waste pipe	m	23			
6	110mm pvc pipe laid to min falls 1:60. Pipes beneath slab to be encased in concrete	m	11			
7	T junction with inspection eye	No	8			
8	Brick sewer manhole	No	2			
9	Gulley	No	2			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 13 Plumbing & Drainage (Provisional)					

[illegible]

<div>Section No. 11</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 11</div> <div>Section No. 11</div> <div>New Ablutions</div> <div>Bill No. 13</div> <div>Plumbing & Drainage (Provisional)</div>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 11</u> <u>BILL NO. 14</u> <u>GLAZING</u> <u>Float glass</u> The term "float glass" is used for monolithic annealed glass <u>Laminated glass</u> <u>GLAZING TO STEEL WITH PUTTY</u> <u>Windows to be glazed to SANS min. standards - 6.4mm Low-E glass in panes smaller than 0.5m² all Fit with obscure glazing. All to comply with National building regulations see also glazing preambles for minimum standards.</u>					
1	Panels exceeding 0,1m ² and not exceeding 0,5m ² <u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u> <u>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges, fixed with double sided adhesive tape and silicone</u>	m ²	5			
2	450mm x 600mm High quality mirror complete with bevelled edges	No	6			
	Carried Forward to Summary of Section No. 11 Section No. 11 New Ablutions Bill No. 14 Glazing			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 11</u></p> <p><u>BILL NO. 15</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 11</p> <p>New Ablutions</p> <p>Bill No. 15</p> <p>Paintwork</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>PAINTWORK ETC TO NEW WORK</u>					
	<u>ON FLOATED PLASTER</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new interior cement plaster. One coat Primer and with two coats PVA</u>					
1	On internal walls	m2	40			
2	On external walls	m2	10			
	<u>ON PLASTER BOARD</u>					
	<u>Superior quality PVA acrylic paint (colour to be selected) to new gypsum ceilings. One coat Primer and finish with two coats Acrylic PVA</u>					
3	On ceilings	m2	20			
4	On cornice not exceeding 300mm girth	m	40			
	<u>ON METAL</u>					
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
5	On door frames	m2	10			
6	On window frames	m2	10			
	<u>Contractors Gloss Enamel (colour to be selected) to new interior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
7	On doors	m2	1			
8	On door frames	m2	1			
	Carried to Collection				R	
	Section No. 11 New Ablutions Bill No. 15 Paintwork					

Item No	Description	Unit	Quantity	Rate	Amount	
9	<u>ON WOOD</u>	m2	24			
	<u>Contractors Gloss Enamel (colour to be selected) to new exterior galvanised steel. One coat Primer for Steel, undercoat with one coat Universal Undercoat and two coats Contractors Gloss Enamel</u>					
	On doors					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>The following are typical examples of descriptions of "nature of ground" Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 12 Guard House & Refuse Bill No. 1 Earthworks (Provisional)</p>			R		

R

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Extra over all excavations for carting away</u>					
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	5			
	<u>Compaction of ground surfaces</u>					
9	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density LAYER WORK	m2	18			
	<u>Keeping excavations free of water</u>					
10	Keeping excavations free of water other than subterranean water		Item			
	<u>FILLING ETC</u>					
	<u>Earth filling obtained from the excavations, including haulage approximately 150m from perimeter of excavations (not compacted)</u>					
11	In prescribed stock piles on site	m3	3			
	<u>Earthfilling of 150mm thick G7 natural gravel compacted to 95% Mod Asstho Density</u>					
12	Under surface beds in 150mm layer	m3	3			
	<u>Prescribed tests to determine degree of compaction or other properties of ground or filling</u>					
13	Modified AASHTO Density test	No	2			
14	Field Density test including "Optimum Moisture Content" test (four readings per test)	No	2			
	Carried to Collection			R		
	Section No. 12					
	Guard House & Refuse					
	Bill No. 1					
	Earthworks (Provisional)					

<div>Section No. 12</div> <div>Bill No. 1</div> <div>Earthworks (Provisional)</div> <div>COLLECTION</div> <div>Total Brought Forward from Page No.</div>					
<div>Carried Forward to Summary of Section No. 12</div> <div>Section No. 12</div> <div>Guard House & Refuse</div> <div>Bill No. 1</div> <div>Earthworks (Provisional)</div>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 2</p> <p>Concrete, Formwork & Reinforcement</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15MPa/19mm concrete</u></p> <p>1 Surface blinding under footings and bases</p> <p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p> <p>2 Strip footings</p> <p><u>REINFORCED CONCRETE CAST IN FORMWORK</u></p> <p><u>25MPa/19mm concrete</u></p> <p>3 Surface beds on waterproofing (including thickenings)</p> <p><u>TEST CUBES</u></p> <p>4 Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 12 Guard House & Refuse Bill No. 2 Concrete, Formwork & Reinforcement</p>					
		m3	1			
		m3	6			
		m3	3			
		No	4			
					R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
5	Surface beds, slabs, etc to falls	m2	18			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>					
6	Surface beds, slabs, etc to falls and currents	m2	1			
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
	<u>Rough formwork to sides</u>					
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	24			
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
8	Not exceeding 300mm high to edges of surface beds	m	5			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
9	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	5			
10	3 x 40mm Saw-cut joints in top of concrete	m	5			
	<u>Horizontal construction joints through concrete including thick cement slurry to one face</u>					
11	Surface beds not exceeding 300mmm thick as per engineers details	m	22			
	Carried to Collection				R	
	Section No. 12					
	Guard House & Refuse					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

Item No	Description	Unit	Quantity	Rate	Amount
	<u>REINFORCEMENT</u>				
	<u>High tensile steel reinforcement to structural concrete work</u>				
12	Y10mm Diameter bars	t	1.00		
13	Y8mm Diameter bars	t	1.00		
	<u>Fabric reinforcement</u>				
14	Type 193 fabric reinforcement in concrete surface beds etc	m2	18		
	Carried to Collection			R	
	Section No. 12 Guard House & Refuse Bill No. 2 Concrete, Formwork & Reinforcement				

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u></p> <p><u>Concrete masonry units</u></p> <p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 3</p> <p>Masonry</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Wall ties for blockwork</u></p> <p>Wall ties shall be polypropylene ties complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other Blockwork</p> <p>Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole Standard complementary blocks</p> <p>Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u></p> <p>Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p>Description of brickwork is measured inclusive of all reinforcement, mortar, ties, mortar fillet and closing of cavities and rates should be inclusive of such</p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p>					
1	300mm Hollow walls of two half brick skins	m2	18			
	Carried to Collection				R	
	Section No. 12 Guard House & Refuse Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SUPERSTRUCTURE</u>					
	<u>Brickwork of NFP bricks in class II mortar in load bearing walls</u>					
2	Half brick walls	m2	1			
3	Half brick walls in beamfilling	m2	3			
4	One brick walls	m2	36			
	<u>Steel bar reinforcement</u>					
5	8mm Diameter high tensile steel bars built in horizontally	t	1.00			
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>					
6	75 x 110mm Lintels in lengths not exceeding 3m	m	5			
	<u>Air bricks etc</u>					
7	229 x 152mm Terracotta vermin proof air brick	No	2			
	<u>FACE BRICKWORK</u>					
	<u>Sapphire Imperial FBS clay face brick, jointed in Class II mortar and pointed with flush vertical and flush horizontal joints</u>					
8	Extra over brickwork for face brickwork for one side of one brick wall	m2	32			
	<u>Brick-on-edge header course copings, sills, lintels, etc of "Sapphire Imperial FBS Clay" face bricks laid into mortar ontop of 375 micron damp course waterproof sheeting wrapped back behind cill brick to underside of window section, pointed with flush recessed joints on all exposed faces.</u>					
9	220mm Copings on top of one brick walls	m	5			
10	Facebrick concrete lintel	m	5			
	Carried to Collection				R	
	Section No. 12 Guard House & Refuse Bill No. 3 Masonry					

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>WINDOW SILLS</u></p> <p><u>Brick-on-edge header course copings, sills, lintels, etc of "Sapphire Imperial FBS Clay" face bricks laid into mortar ontop of 375 micron damp course waterproof sheeting wrapped back behind cill brick to underside of window section, pointed with flush recessed joints on all exposed faces.</u></p>				
11	110mm Face Brick window sills flat and slightly projecting	m	5		
	Carried to Collection			R	
	Section No. 12 Guard House & Refuse Bill No. 3 Masonry				

398.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 12</u> <u>BILL NO. 4</u> <u>WATERPROOFING</u> <u>Waterproofing</u> Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs <u>DAMPPROOFING OF WALLS AND FLOORS</u> <u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u>					
1	In walls <u>One layer 250 micron green polyethylene waterproof sheeting SANS 952-1985 type C sealed at laps with PVC self-adhesive tape</u>	m2	5			
2	Under surface beds	m2	18			
3	Vertically between walls	m2	10			
4	<u>Mastic or silicone sealing compound including backing cord, bond breaker, primer, etc</u> 6 x 10mm In saw cut joints in floors	m	24			
	Carried Forward to Summary of Section No. 12 Section No. 12 Guard House & Refuse Bill No. 4 Waterproofing				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 12</u>					
	<u>BILL NO. 5</u>					
	<u>ROOF COVERINGS, CLADDINGS, ETC.</u>					
	Where battens for roof coverings form part of the plate nailed timber roof truss design it shall be included under the roof construction in the "Carpentry and Joinery" trade and not under this trade					
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
	<u>0.6mm Colomate finished galvanised metal IBR roof Sheeting @ 15 degrees pitch laid on insulation fixed to timber purlins and trusses</u>					
1	Roof covering with pitches not exceeding 25 degrees	m2	20			
2	Side cladding not exceeding 250mm	m2	3			
3	Gable end side cladding not exceeding 250mm	m2	3			
4	Ridge or Valley flashing	m	6			
5	Ridge Closer	m	6			
	<u>ROOF AND WALL INSULATION</u>					
	<u>Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m² and a Class I fire rating in accordance with SANS 0177-3</u>					
6	135mm Lightweight non combustible fibre glass Insulation blanket laid taut over purlins at approximately 750mm centres and fixed concurrent with roof covering with stapled longitudinal flap joints, including fixing at top and bottom edges to purlins with and including hoop iron straps	m2	8			
	Carried Forward to Summary of Section No. 12					
	Section No. 12					
	Guard House & Refuse					
	Bill No. 5					
	Roof coverings, Claddings, etc					

401.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Sawn softwood grade S5/S7</u>					
1	Roof construction to double pitched roof with two hipped ends, 9.5 x 8.04m overall on plan x 1.423mm high overall, including trusses, jack rafters, permanent bracing and 76 x 50mm battens at 750mm + 38 x 38mm purlins centres for roof covering (wall plates elsewhere) complete and signed of by engineer	No	1			
2	Wall plates	m	24			
	<u>SKIRTINGS</u>					
	<u>12MM THICK MDF ADJUSTABLE SKIRTING. PREFINISH WHITE</u>					
3	12mm x 100mm High skirtings	m	10			
	<u>EAVES, VERGES, ETC</u>					
	<u>Sawn softwood</u>					
4	78 x 78mm Branders	m	16			
5	250 x 20mm Barge boards	m	5			
6	250 x 20mm Fascias	m	5			
	<u>TIMBER DOORS, WINDOWS, ETC</u>					
	<u>Fire doors</u>					
	<u>Fire doors are to be in accordance with SANS 1253</u>					
	<u>DOORS ETC</u>					
7	813 X 2032 X 40mm Solid core flush masonite panel door	No	1			
	Carried to Collection				R	
	Section No. 12 Guard House & Refuse Bill No. 6 Carpentry and Joinery					

403.

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 7</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>NAILED-UP CEILINGS</u></p> <p><u>9.8MM GYPSUM CEILING BOARD FIXED TO 38 X 38 MM BATTENS</u></p>				
1	Ceilings nailed-up not exceeding 1m below roof trusses	m2	8		
	<p><u>Cornice, perimeter trims, etc.</u></p> <p><u>Cove Cornice</u></p>				
2	Cornice	m	10		
	<p>Carried Forward to Summary of Section No. 12</p> <p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 7</p> <p>Ceilings, Partitions and Access Flooring</p>			R	

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 8</u></p> <p><u>IRONMONGERY</u></p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration</p> <p><u>HINGES, BOLTS, ETC</u></p> <p><u>Manufactured by Dorma or equally approved</u></p> <p>Measured per door</p>				
1	Stainless Steel floor mounted door stop size 24 x 45mm, 2 x two ball bearing butt hinge with Stainless Steel finish. 4 x lever lockset with Satin Chrome handle finish including powder coated 4 lever lock with Zinc backplate.	No	1		
	<p><u>Signage</u></p> <p><u>School signage</u></p>				
2	Clear Perspex with 150mm white vinyl arial font signage fixed to plastered wall with 60mm plug and 8 mm mirror screws	m2	3		
3	Clear Perspex with 80mm white vinyl arial font signage fixed to plastered wall with 60mm plug and 8 mm mirror screws	m2	2		
4	Clear perspex with colour vinyl logo signage fixed to plastered wall with 60mm plug and 8mm mirror screws	m2	1		
	Carried Forward to Summary of Section No. 12			R	
	Section No. 12				
	Guard House & Refuse				
	Bill No. 8				
	Ironmongery				

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO.12</u></p> <p><u>BILL NO. 9</u></p> <p><u>STRUCTURAL STEELWORK</u></p> <p>Consideration is to be given in specific applications (e.g. where "heavy" steel structures such as in industrial plants, towers for mine shafts, etc are dominant) to implement the principles laid down by the "Measurement for Structural Steelwork" as prepared and recommended by the South African Institute of Steel Construction or any other appropriate principles This bill is, however, based on the building work measuring system Finishing-off painting is to be included in this trade only when the structural steel contractor is required to execute the work</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p><u>STRUCTURAL STEELWORK</u></p> <p><u>STEEL COLUMNS AND BEAMS</u></p> <p><u>Welded beams and purlins etc. with flat bearer and connection plates, bolted to steel</u></p>				
1	100 x 100mm SHS stanchions at 9.10 kg / m	kg	27.3		
	<p>Carried Forward to Summary of Section No. 12</p> <p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 9</p> <p>Structural Steelwork</p>			R	

Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 10</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work: 1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>				
	Carried to Collection			R	
	Section No. 12				
	Guard House & Refuse				
	Bill No. 10				
	Metalwork				

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process 4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years</p> <p>STEEL STAIRS</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>GALVANISED PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Double rebated frames suitable for one brick walls WITH 1 PAIR OF HINGES</u></p>					
1	<p>230 Steel frame - Standard pressed steel (1.2mm thick) double rebate door frame with 1 pair of hinges to suite 813 X 2032 X 40mm door</p> <p><u>Aluminium</u></p> <p><u>Aluminium windows doors etc.</u></p>	No	1			
2	<p>1190 x 20160 + 930 + 930 Standard aluminium frame in configuration as shown with or without opening sections as shown, complete with heavy-duty hinges, latches and restrictors (max. 100mm). Waterproof frame surround and joints with an approved soft seal. Polyester powder coated. All to AAAMSA standards and Architects approval. Windows to be glazed to SANS min. standards - 6.4mm double glazed Low-E glass</p>	No	1			
	Carried to Collection				R	
	<p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 10</p> <p>Metalwork</p>					

409.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 11</u></p> <p><u>PLASTERING</u></p> <p><u>GRANOLITHIC</u></p> <p><u>Method</u></p> <p>The method to be used shall be either the monolithic method or the bonded method</p> <p><u>Preparation</u></p> <p>For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic</p> <p><u>Mix</u></p> <p>Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic</p> <p><u>Panels</u></p> <p>Granolithic shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 11</p> <p>Plastering</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>SCREEDS</u></p> <p><u>Self levelling Screeds on concrete</u></p>					
1	30mm Thick self levelling screed on floors and landings	m2	8			
	<p><u>INTERNAL PLASTER</u></p> <p><u>Plaster mix for rough brick walls, composed of 1 part : and 6 parts sand 10mm - 20mm thick finished with a steel trowel to rough brick walls, in accordance with SANS 50197-1</u></p>					
2	On walls	m2	30			
	Carried to Collection				R	
	Section No. 12					
	Guard House & Refuse					
	Bill No. 11					
	Plastering					

[illegible]

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 12</u></p> <p><u>TILING</u></p> <p><u>Patterns</u></p> <p>Unless otherwise described, tiles shall be laid with continuous joints in both directions</p> <p><u>Fixing</u></p> <p>Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding</p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat</p> <p>Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles</p> <p><u>FLOOR TILING</u></p> <p><u>BEIGE MATT 350 x 350mm CERAMIC FLOOR TILES</u></p>					
1	On new screeded floors	m2	8			
	<p>Carried Forward to Summary of Section No. 12</p> <p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 12</p> <p>Tiling</p>				R	

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 12</u></p> <p><u>BILL NO. 13</u></p> <p><u>PAINTWORK</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p><u>Previously painted plastered surfaces</u></p> <p>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</p> <p><u>Previously painted metal surfaces</u></p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal</p> <p><u>Previously painted wood surfaces</u></p> <p>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</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Dulux" specifications unless otherwise described</p> <p><u>COLOURS</u></p> <p>Unless otherwise described paintwork on ceilings shall be deemed to be in the "White" colour group and paintwork on all other components shall be deemed to be in the "Pastel" colour group in accordance with the Natural Colour System (NCS) adopted by the SA National Standards</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 12</p> <p>Guard House & Refuse</p> <p>Bill No. 13</p> <p>Paintwork</p>					

R

416.

417.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 13</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>The following are typical examples of descriptions of "nature of ground" Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock" The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock" Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Carting away of excavated material</u></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 Filling and layer work materials</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 13 External Works Bill No. 1 Earthworks (Provisional)</p>			R		

419.

420.

R

422.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 13</u></p> <p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)</p> <p><u>Lightweight concrete</u></p> <p>Lightweight concrete shall have a density of 600kg/m³ for the top 50mm and 400kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p> <p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p> <p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p>					
	Carried to Collection			R		
	Section No. 13					
	External Works					
	Bill No. 2					
	Concrete, Formwork & Reinforcement					

424.

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>MOVEMENT JOINTS ETC</u>					
	<u>Expansion joints with 10mm softboard and sealant between vertical concrete and brick surfaces</u>					
7	Not exceeding 300mm high to edges of surface beds	m	390			
	<u>Expansion joints with between vertical concrete surfaces, including necessary formwork</u>					
8	3x35mm Saw-cut joints in top of concrete including 8xream and 10mm backing cord with 8 x 13mm sealant (exposed slabs)	m	460			
	<u>REINFORCEMENT Mild steel bars</u>					
9	8mm	t	2.00			
10	16mm	t	4.00			
	<u>High-tensile steel bars</u>					
11	10mm	t	1.00			
12	12mm	t	1.00			
13	Mesh 193	m2	770			
	<u>CONCRETE</u>					
	<u>Class 25/19 concrete to :</u>					
14	Walkway slab/ surface bed	m3	20			
15	Bases-stanchions	m3	15			
	<u>Manhole allowance</u>					
16	Allowance per manhole (complete) externally for electrical or other services	No	12			
	<u>Concrete fountain</u>					
17	Concrete fountain complete as per details	No	12			
	Carried to Collection				R	
	Section No. 13 External Works Bill No. 2 Concrete, Formwork & Reinforcement					

426.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 13</u></p> <p><u>BILL NO. 3</u></p> <p><u>STRUCTURAL STEELWORK</u></p> <p>Consideration is to be given in specific applications (e.g. where "heavy" steel structures such as in industrial plants, towers for mine shafts, etc are dominant) to implement the principles laid down by the "Measurement for Structural Steelwork" as prepared and recommended by the South African Institute of Steel Construction or any other appropriate principles This bill is, however, based on the building work measuring system Finishing-off painting is to be included in this trade only when the structural steel contractor is required to execute the work</p> <p>Finishing-off painting is to be included in this trade</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p><u>STEEL COLUMNS AND BEAMS</u></p> <p><u>Welded beams and purlins etc. with flat bearer and connection plates, bolted to steel</u></p>					
1	120 x 60 x 3mm RHS rafters	t	1.00			
2	60 x 60mm SHS stanchions	t	3.00			
3	125 x 65 x 20 x 2,5mm CFLC purlins	t	3.00			
	Carried Forward to Summary of Section No. 13				R	
	Section No. 13					
	External Works					
	Bill No. 3					
	Structural Steelwork					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 13</u></p> <p><u>BILL NO. 4</u></p> <p><u>METALWORK</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Aluminium doors, windows, etc</u></p> <p>Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to these bills of quantities</p> <p>The following certificates shall be provided prior to commencement of site work: 1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively</p>					
	<p style="text-align: right;">Carried to Collection</p> <p>Section No. 13 External Works Bill No. 4 Metalwork</p>			R		

Item No	Description	Unit	Quantity	Rate	Amount	
	<p>A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process 4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked 5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years</p> <p><u>Chromadeck roof sheeting for walkways to match roofing colour</u></p> <p>1 Corrugated Chromadek sheeting @ 3 degree pitch fixed to lip channel</p> <p><u>GATES AND FENCING</u></p> <p>2 High density anti-climbing and anti-cut pressed mesh panel fencing 2400mm high, formed of 4mm diameter horizontal and 4mm diameter vertical high tensile wires galvanised with marine fusion bond coating colour (might be green, blue or black) with aperture size 76.2 x 12.7mm and reinforcing V-section ribs, bolted with vandal resistant bolts and clamping plates to 85-45mm taper locking post 2400mm high including locking recess mechanism at 3382mm centres with sealed end caps and 30 x 3mm 250mm long angle section base anchors with posts bedded in 15MPa concrete bases size 400 x 400 x 600mm deep</p>	m2	585			
		m	743			
	Carried to Collection				R	
	Section No. 13					
	External Works					
	Bill No. 4					
	Metalwork					

Item No	Description	Unit	Quantity	Rate	Amount	
3	0.789 x 2020mm high Mild steel gate consisting of 10 x10mm mild steel square bars fixed at 100mm centres at with heavy duty hinges that allows the gate to open up to 90 degrees. Painted 1 coat zinc chromate primer, 2 coats exterior finish gloss enamel , colour to architect's specification 50 X 50mm mild steel square tube welded to form frame. Painted Refer to finishes schedule, 2 x coats gloss enamel (exterior quality) Custom made barrel bolts mechanism to specialist design & installation; materials, fixing and installation are to be in compliance with SANS requirements. Barrel bolts to be locked with Heavy duty weatherproof padlocks	No	13			
4	1872 x 2100 Mild steel Double gate consisting of 10 x10mm mild steel square bars fixed at 100mm centres at with heavy duty hinges that allows the gate to open up to 90 degrees. Painted 1 coat zinc chromate primer, 2 coats exterior finish gloss enamel , colour to architect's specification 50 X 50mm mild steel square tube welded to form frame. Painted Refer to finishes schedule, 2 x coats gloss enamel (exterior quality) Custom made barrel bolts mechanism to specialist design & installation; materials, fixing and installation are to be in compliance with SANS requirements. Barrel bolts to be locked with Heavy duty weatherproof padlocks	No	2			
5	980 x 1800 Mild steel gate consisting of 10 x10mm mild steel square bars fixed at 100mm centres at with heavy duty hinges that allows the gate to open up to 90 degrees. 50 X 50mm mild steel square tube welded to form frame. Painted Refer to finishes schedule, 2 x coats gloss enamel (exterior quality) Custom made barrel bolts mechanism to specialist design & installation; materials, fixing and installation are to be in compliance with SANS requirements. Barrel bolts to be locked with Heavy duty weatherproof padlocks	No	2			
Carried to Collection					R	
Section No. 13 External Works Bill No. 4 Metalwork						

Item No	Description	Unit	Quantity	Rate	Amount	
6	900 x 2000mm Mild steel pedestrian gate consisting of 10 x10mm mild steel square bars fixed at 100mm centres at with heavy duty hinges that allows the gate to open up to 90 degrees. 50 X 50mm mild steel square tube welded to form frame. Painted Refer to finishes schedule, 2 x coats gloss enamel (exterior quality) Custom made barrel bolts mechanism to specialist design & installation; materials, fixing and installation are to be in compliance with SANS requirements. Barrel bolts to be locked with Heavy duty weatherproof padlocks. Electric door lock opener	No	1			
7	900 x 1800 Mild steel gate consisting of 10 x10mm mild steel square bars fixed at 100mm centres at with heavy duty hinges that allows the gate to open up to 90 degrees. Painted 1 coat zinc chromate primer, 2 coats exterior finish gloss enamel , colour to architect's specification 50 X 50mm mild steel square tube welded to form frame. Painted Refer to finishes schedule, 2 x coats gloss enamel (exterior quality) Custom made barrel bolts mechanism to specialist design & installation; materials, fixing and installation are to be in compliance with SANS requirements. Barrel bolts to be locked with Heavy duty weatherproof padlocks	No	2			
8	3180 x 2100mm high Mild steel double gate consisting of 10 x10mm mild steel square bars fixed at 100mm centres at with heavy duty hinges that allows the gate to open up to 90 degrees. 50 X 50mm mild steel square tube welded to form frame. Painted Refer to finishes schedule, 2 x coats gloss enamel (exterior quality) Custom made barrel bolts mechanism to specialist design & installation; materials, fixing and installation are to be in compliance with SANS requirements. Barrel bolts to be locked with Heavy duty weatherproof padlocks	No	2			
9	Balustrade complete with 50mm x 50mm Mild Steel baluster welded to 100mm x 100mm MS plate bolted to RC upstand and 50mm x 50mm Horizontal Mild Steel Tubing (Handrail) welded to 50mm x 50mm Vertical Mild Steel Baluster and 25mm x 25mm Mild Steel Horizontal Tubing Welded to 50mm x 50mm Mild Steel Vertical Baluster and 100mm x 100mm Mild Steel plate bolted to RC base with 4No. M10 rawl bolts (inlcuding bolts and washers etc.)	m	190			
Carried to Collection					R	
Section No. 13 External Works Bill No. 4 Metalwork						

432.

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>SECTION NO. 13</u></p> <p><u>BILL NO. 5</u></p> <p><u>PLUMBING & DRAINAGE (PROVISIONAL)</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site French drains</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p>					
	Carried to Collection			R		
	Section No. 13					
	External Works					
	Bill No. 5					
	Plumbing & Drainage (Provisional)					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>PVC-U pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings Polypropylene pipes</p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p>					
	Carried to Collection				R	
	<p>Section No. 13</p> <p>External Works</p> <p>Bill No. 5</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p>					
	<p style="text-align: right;">Carried to Collection</p>					
	<p>Section No. 13</p> <p>External Works</p> <p>Bill No. 5</p> <p>Plumbing & Drainage (Provisional)</p>					

Item No	Description	Unit	Quantity	Rate	Amount	
	<u>General</u> Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately) Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes <u>As-built drawings</u> <u>Rainwater collection</u> 1 Approved 500l Water tanks installed with all valves and connections, pipework measured elsewhere <u>SANITARYWARE</u> 2 Stainless steel push tap drinking fountain connected to socket and 22mm steel pipe 1,2m long connected to water supply 3 Stainless steel turn tap drinking fountain connected to socket and 22mm steel pipe 0,9m long connected to water supply					
		No	2			
		No	8			
		No	4			
	Carried to Collection				R	
	Section No. 13 External Works Bill No. 5 Plumbing & Drainage (Provisional)					

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Item No	Description	Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 14</u>					
	<u>BILL NO. 1</u>					
	<u>FURNITURE</u>					
	<u>EXISTING CLASSROOM BLOCK 1, 2, 3,4, 5</u>					
1	Grade 1 - 3 Single combination primary desk	No	200			
2	Grade 4 - 6 Single combination primary desk	No	205			
3	Grade 7 single combination primary desk	No	210			
4	Teachers Desk with 2 Drawers	No	5			
5	Upholstered chair without arms	No	5			
6	3-46-00 Stat cupboard : 4 adjustable shelves & lock doors	No	5			
	<u>HOD OFFICE AND WORK ROOMS</u>					
7	Upholstered chairs with arms	No	4			
8	Stationary cupboards 2 door + shelves	No	4			
9	3-21-25 Office desk : 2 drawers (top drawer, lock)	No	4			
	<u>NEW ADMIN BLOCK</u>					
10	Filling rack pigeon hole 30 division	No	3			
11	3-20-14 Coffee table (N/Oak)	No	30			
12	3-94-04 Side chair with arms	No	30			
13	Upholstered chairs with arms	No	8			
14	3-49-10 Steel hat and coat stand	No	4			
15	3-46-00 Steel stationery cupboard	No	2			
16	Steel frame single bed with bedding sheets etc x 3 sets	No	2			
	Carried to Collection				R	
	Section No. 14					
	Furniture					
	Bill No. 1					
	Furniture					

Item No	Description	Unit	Quantity	Rate	Amount	
17	Principle desk connecting corner piece	No	2			
18	Principle desk with 3 drawers fitter on right hand side	No	2			
19	Filing cabinet with 4 drawers	No	2			
20	High back swivel & tilt chair with 5-star base	No	2			
21	Correspondence rack 3 division	No	1			
22	Wooden glazed door bookcase with 3 shelves	No	1			
	<u>Grade R</u>					
23	3-30-02 Pre-school (6 seater) table	No	5			
24	3-23-040 "Tech" Stackable chair	No	33			
25	Steel frame single bed with bedding sheets etc x 3 sets	No	2			
26	Upholstered chairs with arms	No	2			
	<u>Science & media lab</u>					
27	Lab Chair	No	30			
28	Double stackable school table (not standard height)	No	15			
29	Upholstered chairs with arms (not standard height)	No	17			
30	Stationery cupboards 2 door + shelves	No	2			
31	3-21-25 Office desk : 2 drawers (top drawer, lock)	No	2			
	<u>Guard House</u>					
32	3-22-01 Sec Adult chair : Large Orange seat	No	2			
33	3-21-25 Teacher's desk : 2 drawers : saligna	No	1			
	<u>External Furniture</u>					
34	Playground climbing stairs with swings	No	2			
35	Slides	No	4			
	Carried to Collection				R	
	Section No. 14 Furniture Bill No. 1 Furniture					

Item No	Description	Unit	Quantity	Rate	Amount	
36	Playground system	No	2			
37	Other accessories	No	8			
Carried to Collection					R	
Section No. 14						
Furniture						
Bill No. 1						
Furniture						

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Item No	Description	Unit	Quantity	Rate	Amount	
	<u>Landscaping (soft and hard allowance)</u>					
1	Provide the sum of R 300 000 for landscaping including irrigation		Item			
2	Profit		Item			
3	Attendance		Item			
	<u>Electronic installation (telecoms and alarm - back bone conduiting elsewhere)</u>					
4	Provide the sum of Cur R 150 000 for electronic installation		Item			
5	Profit		Item			
6	Attendance		Item			
	<u>Borehole Moving & Upgrade</u>					
7	Provide the sum of R 95 000 for Borehole relocation/redrilling		Item			
8	Profit		Item			
9	Attendance		Item			
	<u>CCTV (backbone elsewhere)</u>					
10	Provide the sum of R 65 000 installation, data cabling, etc		Item			
11	Profit		Item			
12	Attendance		Item			
	<u>Kitchen equipment installation</u>					
13	Provide the sum of R 300 000 for kitchen equipment installation		Item			
14	Profit		Item			
15	Attendance		Item			
	Carried to Collection				R	
	Section No. 15					
	Provisional Sums					
	Bill No. 1					
	Provisional Sums					

Item No	Description	Unit	Quantity	Rate	Amount
	Solar Set Up				
16	Provide the sum of R 105 000 for solar Set Up		Item		
17	Profit		Item		
18	Attendance		Item		
	<u>Allowance of temporary traffic accommodation</u>				
19	Allow a sum of 126 000 for temporary road signs, cones, etc. to allow for traffic flow		Item		
20	Profit		Item		
21	Attendance		Item		
	<u>Budgetary Allowance for the Employment of a Community Liaison Officer for the Duration of the Project (CLO)</u>				
22	Allow a sum of R 65 000 for CLO Appointment		Item		
	<u>Budgetary Allowance for the Employment of a 2No. Built Environment Graduates for the duration of the Project</u>				
23	Allow a sum of R 192 000.00 for Appointment of Graduates		Item		
	<u>Budgetary Allowance for Escallation (CPAP)</u>				
24	Allow a sum of R 492 803,43 for CPAP		Item		
	Carried to Collection			R	
	Section No. 15 Provisional Sums Bill No. 1 Provisional Sums				

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Item No	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 17</u></p> <p><u>BILL NO. 1</u></p> <p><u>ELECTRICAL INSTALLATION</u></p> <p><u>PREAMBLES</u></p> <p>The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS AND METHODS TO BE USED PW 371A (Edition 2.1 July 2014) which is obtainable from Public Works website www.publicworks.gov.za/consultantguidelines</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General:</u></p> <p><u>Amounts brought forward from Annexure B:</u> <u>Electrical Installations summary page :</u></p>				
1	Complete installation, reticulation, electrical, telephone, intercom and bell system		Item		
2	ADMIN BLOCK COMPLETE INSTALLATION : INTERNAL ELECTRICAL INSTALLATION		Item		
3	ADMIN BLOCK: LUMINAIRES AND WIREWAYS FOR TELEPHONE AND INTERCOM SYSTEM		Item		
4	Grade R INTERNAL ELECTRICAL INSTALLATION		Item		
5	Grade R LUMINAIRES AND WIREWAYS FOR TELEPHONE AND INTERCOM SYSTEM		Item		
6	New Block 4 INTERNAL ELECTRICAL		Item		
7	New Block 4 LUMINAIRES AND WIREWAYS FOR TELEPHONE AND INTERCOM SYSTEM		Item		
8	Nutrition Block INTERNAL ELECTRICAL		Item		
9	Nutrition Block LUMINAIRES AND WIREWAYS FOR TELEPHONE AND INTERCOM SYSTEM		Item		
	Carried to Collection			R	
	Section No. 17 Electrical Installation Bill No. 1 Electrical Installation				

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FINAL SUMMARY		Page No	Amount
1	Preliminaries & General	20	
2	Alterations & Demolitions	27	
3	Existing Classroom Refurbishment	40	
4	Existing Ablutions	69	
5	Admin Block	119	
6	Dinning & Nutrition Centre	168	
7	Refurb Science and Multimedia Lab	215	
8	Classroom Block 5 & Head of Department	251	
9	Classroom Block 4	289	
10	New Grade R Classrooms	336	
11	New Ablutions	384	
12	Guard House & Refuse	417	
13	External Works	438	
14	Furniture	442	
15	Provisional Sums	446	
16	Civil Works	447	
17	Electrical Installation	450	
18	Mechanical Installation	451	
SUB-TOTAL EXCLUDING VAT			R
ADD: Value-Added Tax @ 15%			R
Carried to Form of Offer and Acceptance			R