

**SECTION NO. 1**  
**PRELIMINARIES**

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**SECTION NO. 1****PRELIMINARIES****PRELIMINARIES AND GENERAL****PRINCIPAL BUILDING AGREEMENT****NOTES TO PRELIMINARIES**

1.0 These Preliminaries comprise the following: 1.1 Part A - The JBCC Principal Building Agreement Edition 4.1, 2005, July 2007. The Bidder is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are

given under each relevant clause 1.2 Part B - The ASAQS Preliminaries November 2007 as amended by these bills of quantities 1.3 Part C - Additional Preliminaries to meet the particular circumstances of this project 2.0 Where references are made to clauses in any of the above sections, they will be identified by the prefix A, B or C followed by the clause number. 3.0 Tenderers are referred to the above mentioned documents for the full intent and meaning of each clause thereof. These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not applicable to this contract, such modifications / corrections or additions as are necessary, are given as far as possible under each relevant clause heading. Additional preliminary clauses are contained in Part C hereof. 4.0 No claim whatsoever shall be entertained in respect of errors or omissions in pricing due to brevity of descriptions of items in these bills of quantities which are fully described when read in

conjunction with the relevant clauses of the said Preliminaries and Preambles. 5.0 The tenderer shall allow opposite each of the clauses whatever costs and charges he may consider necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out herein. Only priced items will be considered in respect of any adjustment of this section. Any items left unpriced will be understood to be provided free of charge and no claim for any extras arising out of the

tenderer's omission to price any item will be entertained. 6.0 Where modifications or amendments as described are made, such modifications and/or amendments shall supersede any conflicting provision in the relevant clauses of the Principal Building Agreement or the Preliminaries and the tenderer shall make due allowance for whatever costs and charges he may consider necessary for the carrying out and observance of the provisions of the clauses as modified and/or amended. 7.0 Any item not applicable to this contract is marked N/A.

NOTE: Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No.190 for Haylett formula purposes

The JBCC Series 2000 Principal Building Agreement (March 2005 edition 4.1 code 2101) prepared by the Joint Building Contract Committee shall be the applicable building agreement, amended as hereinafter described

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The ASAQS Preliminaries (November 2007 edition) published by the Association of South African Quantity Surveyors for use with the said JBCC Principal Building Agreement shall be deemed to be incorporated in these bills of quantities

Contractor's are referred to the abovementioned documents for the full intent and meaning of each clause thereof

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 abovementioned documents

Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"

### **PREAMBLES FOR TRADES**

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 claims arising from brevity of description of items fully described in the said Model Preambles will be entertained

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

The Bills of Quantities document forms part of and must be read and priced in conjunction with all the other documents forming part of the contract document, the Standard Conditions of Tender, Conditions of Contract, Model Preambles for Trade 2008, Specifications, Drawings and all other relevant documentation.

### **SECTION A - PRINCIPAL BUILDING AGREEMENT**

#### **Definitions**

- 1 Definitions and Interpretation (Clause 1.0)

Item

#### **Objective and preparations**

- 2 Offer, Acceptance and Performance obligations (Clause 2.0)
- 3 Documents (Clause 3.0)
- 4 Design Responsibility (Clause 4.0)
- 5 Employer's Agents (Clause 5.0)
- 6 Contractor's site Representative (Clause 6.0)
- 7 Compliance with Laws and Regulations (Clause 7.0)

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Without limiting the generality of the provisions of Clause 7.0, the contractor's attention is drawn to the provisions of the Construction Regulations, 2014 issued in terms of the Occupational Health and Safety Act, 1993 and Part C4.2 (Annexure C) of this tender document. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specifications			
8	Works Risk (Clause 8.0)	Item	
9	Indemnities (Clause 9.0)	Item	
10	General Insurances (Clause 10.0)	Item	
11	Special Insurances (Clause 11)	Item	
12	Effecting Insurances (Clause 12)	Item	
13	Assignment (Clause 13)	Item	
14	Security (Clause 14)	Item	
<b><u>Execution</u></b>			
15	Preparation For and Execution of The Works (Clause 15)	Item	
16	Site and Access (Clause 16)	Item	
17	Contract Instructions (Clause 17)	Item	
18	Setting Out Of The Works (Clause 18) 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	Temporary works and plant (Clause 19) The contractor shall provide, maintain and remove on completion all perimeter scaffolding required by the contractor for the due and proper fulfilment of the works	Item	
20	Nominated Subcontractors (Clause 20)	Item	
21	Selected Subcontractors (Clause 21)	Item	
22	Employer's Direct Contractors (Clause 22)	Item	
23	Contractor's Domestic Subcontractors (Clause 23)	Item	
<b><u>Completion</u></b>			
24	Practical Completion (Clause 24)	Item	
25	Works Completion (Clause 25)	Item	
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26	Final Completion (Clause 26)	Item		
27	Latent Defects Liability Period (Clause 27)	Item		
28	Sectional Completion (Clause 28)	Item		
29	Revision of Date for Practical Completion (Clause 29) The removal and replacement of materials and/or workmanship which do not conform to specification or drawing shall not constitute grounds for the extension of the construction period nor the adjustment of contract value (Clause 29.3)	Item		
30	Penalty for Late or Non-Completion (Clause 30)	Item		
	<b><u>Payment</u></b>			
31	Interim Payment to the Contractor (Clause 31) The inclusion of materials and goods stored off site in the amount authorized for payment in terms of Clause 31.4 shall be at the sole discretion of the Principal Agent and such inclusion shall only be considered upon the provision, by the contractor, of an approved guarantee issued by a registered commercial bank. Clause 31.6.5 is therefore not applicable	Item		
32	Adjustment to the Contract Value (Clause 32) All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor	Item		
33	Recovery of Expense and Loss (Clause 33)	Item		
34	Final Account and Final Payment (Clause 34)	Item		
35	Payment to Other Parties (Clause 35)	Item		
	<b><u>Termination</u></b>			
36	Termination by Employer - Contractor's Default (Clause 36)	Item		
37	Termination by Employer - Loss and Damage (Clause 37)	Item		
38	Termination by Contractor - Employer's Default (Clause 38)	Item		
39	Termination - Cessation of the Works (Clause 39)	Item		
	<b><u>Dispute</u></b>			
40	Dispute Settlement (Clause 40)	Item		
	<b><u>Contract Agreement</u></b>			
41	Post tender provisions (Clause 41)The required post tender information shall be inserted in the post tender provisions after consultation with the contractor	Item		
42	Contractual agreement (Clause 42)The required information of the contracting parties and the amount of the accepted contract sum shall be inserted in the contractual agreement for signature of the agreement by the contracting parties	Item		
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<b><u>SECTION B: PRELIMINARIES</u></b>			
<b><u>Definitions and Interpretation</u></b>			
43	Definitions and Interpretation (Clause 1.0)	Item	
<b><u>Documents</u></b>			
44	Checking of Documents (Clause 2.1)	Item	
45	Provisional Bills of Quantities (Clause 2.2)	Item	
46	Availability of Construction Documentation (Clause 2.3)	Item	
<b><u>Previous work and adjoining properties</u></b>			
47	Previous Work - Dimensional Accuracy (Clause 3.1)	Item	
48	Previous Work - Defects (Clause 3.2)	Item	
49	Inspection of Adjoining Properties (Clause 3.3)	Item	
<b><u>Samples, Shop Drawings and Manufacturer's Instructions</u></b>			
50	Samples of Materials (Clause 4.1)	Item	
51	Workmanship Samples (Clause 4.2)	Item	
52	Shop Drawings (Clause 4.3)	Item	
53	Compliance with Manufacturer's Instructions (Clause 4.4)	Item	
<b><u>Deposits and Fees</u></b>			
54	Deposits and Fees (Clause 5.1)	Item	
<b><u>Temporary Services</u></b>			
55	Water (Clause 6.1)	Item	
56	Electricity (Clause 6.2)	Item	
57	Telecommunication Equipment (Clause 6.3)	Item	
58	Ablution Facilities (Clause 6.4)	Item	
<b><u>Prime cost Amounts</u></b>			
59	Responsibility for Prime Cost Amounts (Clause 7.1)	Item	
<b><u>Special Attendance on N/S Subcontractors</u></b>			
60	Special Attendance (Clause 8.1)	Item	
<b><u>GENERAL</u></b>			
61	Protection of the Works (Clause 9.1)	Item	
62	Protection / Isolation of Existing / Sectionally Occupied Works (Clause 9.2)	Item	
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63	Security of the Works (Clause 9.3)	Item	
64	Notice Before Covering Work (Clause 9.4)	Item	
65	Disturbance (Clause 9.5)	Item	
66	Environmental Disturbance (Clause 9.6)	Item	
67	Works Cleaning and Clearing (Clause 9.7)	Item	
68	Vermin (Clause 9.8)	Item	
69	Overhand Work (Clause 9.9)	Item	
<b><u>SECTION C: SPECIFIC PRELIMINARIES</u></b>			
<b><u>Contract Price Adjustment Provisions</u></b>			
70	Bidders are advised that this Contract shall be a Fixed Price Contract and shall not be subject to the Contract Price Adjustment Provisions (CPAP) or any other escalation formula and therefore bidder are to allow for any increases (except any variations in the rate of Value Added Tax) in cost of labour, materials, transport, etc.	Item	
<b><u>Site Instructions</u></b>			
71	Site Instructions issued on site are to be recorded in triplicate in a site instruction book which is maintained on site by the contractor	Item	
<b><u>Warranties for material and workmanship</u></b>			
72	Where warranties for materials and /or workmanship 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 certified completion of contract. The warranty shall state that workmanship, materials and installation are warranted for a specified period from the date of final completion 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	
<b><u>Co-operation of contractor for cost management</u></b>			
73	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 procedure 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	
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<b><u>Confidentiality</u></b>		
74	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	Item
<b><u>Testing of windows for watertightness</u></b>		
75	Each window shall be tested for water tightness 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
<b><u>C11 OCCUPATIONAL HEALTH AND SAFETY ACT</u></b>		
76	C11.0 The contractor shall comply with all the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)It is required of the contractor to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document 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 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 Fixed: _____ Value related: _____ Time related: _____	Item
77	C11.1 REFLECTIVE VESTS Provision of reflective vests Fixed: _____ Value related: _____ Time related: _____	Item
78	C11.2 INITIAL OBLIGATIONS Principal contractor's initial obligations in respect of the Health and Safety Act and Construction Regulations, etc. Fixed: _____ Value related: _____ Time related: _____	Item
79	C11.3 TIME RELATED OBLIGATIONS Principal contractor's time related obligations in respect of the Health and Safety Act and Construction Regulations, etc. Fixed: _____ Value related: _____ Time related: _____	Item
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80	C11.4 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of reflective vests Fixed:_____ Value related:_____ _____ Time related:_____	Item		
81	C11.5 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of hard hats Fixed:_____ Value related:_____ _____ Time related:_____	Item		
82	C11.6 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of protective footwear Fixed:_____ Value related:_____ _____ Time related:_____	Item		
83	C11.7 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of earplugs Fixed:_____ Value related:_____ _____ Time related:_____	Item		
84	C11.8 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of dust masks Fixed:_____ Value related:_____ _____ Time related:_____	Item		
85	C11.9 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of gloves Fixed:_____ Value related:_____ Time related:_____	Item		
86	C11.10 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of high visibility overalls to SARTSM Chapter 13 Level 3Fixed:_____ _____ Value related:_____ Time related:_____	Item		
87	C11.11 PROVISION OF PERSONAL PROTECTIVE EQUIPMENT – PPE Provision of SANS approved ear defenders Fixed:_____ Value related:_____ Time related:_____	Item		
88	C11.12 SIGNAGE Provision of signage Fixed:_____ Value related:_____ _____ Time related:_____	Item		
89	C11.13 CONSTRUCTION HEALTH AND SAFETY OFFICER Provision of full-time construction health and safety officer (SACPCMP Registered)Fixed:_____ _____ Value related:_____ Time related:_____	Item		
90	C11.14 MEDICAL CERTIFICATES Medical certificates and medical surveillance including initial (baseline) medical examinations, periodic examinations, and exit examinations Fixed:_____ Value related:_____ _____ Time related:_____	Item		
91	C11.15 INDUCTION TRAINING Induction training Fixed:_____ Value related:_____ Time related:_____	Item		
92	C11.16 FIRST AID BOXES Provision of first aid boxes to GSR requirements Fixed:_____ Value related:_____ Time related:_____ _____	Item		
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93	C11.17 NOISE MONITORING Noise monitoring including establishment of noise zones, audiograms (personnel), etc. Fixed:_____ Value related:_____ Time related:_____	Item	
94	C11.18 HEALTH AND SAFETY FILE Submission of health and safety file. Fixed:_____ Value related:_____ Time related:_____	Item	
<b><u>GENERAL</u></b>			
95	Tender Data Schedule	Item	
96	General Conditions of Contract	Item	
97	Special Conditions of Contract	Item	
98	Contract Data	Item	
99	Schedule of Variables	Item	
<b><u>SUMMARY OF CATEGORIES</u></b>			
100	Category: Fixed F:.....	Item	
101	Category: Value V:.....	Item	
102	Category: Time T:.....	Item	
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## **SECTION NO. 2**

### **DEMOLITIONS**

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b> <b><u>DEMOLITIONS</u></b> <b><u>BILL NO. 1</u></b> <b><u>DEMOLITIONS</u></b>  <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>View site</u></b> <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 contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained</p> <b><u>Explosives</u></b> <p>No explosives whatsoever may be used for demolition purposes unless otherwise stated</p> <b><u>General</u></b> <p>Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent</p> <p>Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site</p> <b><u>DEMOLITIONS</u></b> <b><u>Demolishing and removing</u></b> <b><u>Single storey building with pitched roof,comprising reinforced concrete surface bed, external walls, internal walls and corrugated roof covering,trusses and rain goods complete.Note: The following items are to remain the property of the employer and are to be carefully taken out, temporarily stored, transported over a distance of approximately 10km to store and handed over to the employer: 1. doors and frames ...2. Window frames, 3. Corrugates steel roof covering and take away rubbles from site.</u></b>				
1	Block A 299m2 on plan	No	1	
2	Block B 256m2 on plan	No	1	
3	Block C 330m2 on plan	No	1	
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		Unit	Quantity	Rate	Amount
4	Block D 299m2 on plan	No	1		
5	Block E 135m2 on plan	No	1		
6	Block F 30m2 on plan	No	1		
7	Block G 150m2 on plan	No	1		
8	Block H 6m2 on plan	No	1		
9	Block J 386m2 on plan	No	1		
10	Block K 366m2 on plan	No	1		
11	Block L 26m2 on plan	No	1		
12	Block M 216m2 on plan	No	1		
13	Block N 340m2 on plan	No	1		
14	Block P 341m2 on plan	No	1		
15	Block Q 16m2 on plan	No	1		
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## **SECTION NO. 3**

## **ALTERATIONS**

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 3</u></b>				
<b><u>ALTERATIONS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>PARK HOMES</u></b>				
<b><u>DECANTING(PROVISIONAL)</u></b>				
<b><u>HOARDING (Provisional)</u></b>				
<b><u>Temporary screens/Barriers</u></b>				
1 Provide, fix, maintain in position as required and remove as and when directed a temporary hoarding 2m high with shaded cloth over wire mesh fixed to and including 100mm diameter gum pores at 3500mm centres in concrete footing, as barriers, screens, etc. that will be necessary when carrying out the work for the protection of persons and completed structures while the work is in progress.	m	150		
<b><u>PREFABRICATED STRUCTURE</u></b>				
<b><u>One (1) Classroom Prefabricated Structure</u></b>				
2 Relocatable classroom prefabricated structure with standard classroom size (i.e 49 Square meters), approximate overall external size 11 670mm long x 8 400mm wide on plan x 2 750mm high, including 1 500mm wide covered walkway or verandah, all complete with and prefabricated walling, doors, windows, ceilings, roofs, wall and floor finishes, pin boards, blackboards, cupboards, electrical conduiting including fittings, etc.	No	16		
3 Relocatable office prefabricated structure with standard size (i.e 49 Square meters), approximate overall external size 11 670mm long x 8 400mm wide on plan x 2 750mm high, including 1 500mm wide covered walkway or verandah, all complete with and prefabricated walling, doors, windows, ceilings, roofs, wall and floor finishes, pin boards, cupboards, electrical conduiting including fittings, etc.	No	4		
4 Relocatable Kitchen prefabricated structure with standard size (i.e 49 Square meters), approximate overall external size 11 670mm long x 8 400mm wide on plan x 2 750mm high, including 1 500mm wide covered walkway or verandah, all complete with and prefabricated walling, doors, windows, ceilings, roofs, wall and floor finishes, gas piping for cooking electrical conduiting including fittings, etc.	No	1		
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		Unit	Quantity	Rate	Amount
5	Relocatable Toilet prefabricated structure with standard size (i.e 49 Square meters), approximate overall external size 11 670mm long x 8 400mm wide on plan x 2 750mm high, including 1 500mm wide covered walkway or verandah, all complete with and prefabricated walling, doors, windows, ceilings, roofs, wall and floor finishes electrical conduiting including fittings, and all sanitary wares and connected complete with all necessary accessory etc.	No	4		
	<b><u>EARTHWORKS</u></b>				
	<b><u>Site Clearance etc.</u></b>				
6	Allow for clearing the site of all shrubs and trees not exceeding 200mm girth, rubbish, debris, vegetation, drains, etc, that may be encountered and roughly level site.	m <sup>2</sup>	9 320		
	<b><u>PLATFORMS</u></b>				
	<b><u>Open face excavation in earth over sloping site:</u></b>				
7	Excavate in earth to open face over site to reduce levels including depositing, levelling and consolidating spoil on site.	m <sup>3</sup>	2 796		
	<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>				
8	Soft rock	m <sup>3</sup>	932		
9	Hard rock.	m <sup>3</sup>	466		
	<b><u>Extra over all excavations for carting away</u></b>				
10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor. (Labour intensive).	m <sup>3</sup>	2 352		
	<b><u>Compaction of surfaces</u></b>				
11	Compaction of ground surfaces under floors, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density.	m <sup>2</sup>	1 950		
	<b><u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density.</u></b>				
12	Under floors, etc.	m <sup>3</sup>	600		
	<b><u>Coarse river sand filling</u></b>				
13	Under floors, etc.	m <sup>3</sup>	180		
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**SECTION NO. 4**  
**BUILDING WORKS**

	Unit	Quantity	Rate	Amount
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<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>EARTHWORKS</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
<b><u>BULK EARTHWORKS (PROVISIONAL)</u></b>				
<b><u>PREAMBLES</u></b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
<b><u>Nature of ground</u></b>				
The Tenderer shall acquaint themselves by personal examination of the nature of the ground. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" and where conditions of a more difficult character are indicated these are separately measured				
<b><u>Testing of material and filling</u></b>				
Descriptions of earth filling, compaction, etc., shall be deemed to include for all necessary testing required in accordance with the SABS 1200 series				
<b><u>Precast concrete block road surfacing</u></b>				
Paving shall be laid in accordance with SABS 1200 MJ, SANS 1058 and the Concrete Masonry Association's specifications				
Paving shall be laid to herringbone pattern on 20mm thick (thickness after final compaction) clean river sand (preparation of ground or filling elsewhere)				
Carried to Collection			R	
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	Unit	Quantity	Rate	Amount
Clean sand shall be swept into joints between roadstones at completion				
<b><u>Drawings</u></b>				
<b><u>SITE CLEARANCE</u></b>				
<b><u>Site clearance</u></b>				
1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc. I 18784	m <sup>2</sup>	18 784		
2 Stripping average 100mm thick layer of top soil and stockpiling on site I 18659	m <sup>2</sup>	18 659		
<b><u>REMOVAL OF TREES, ETC.</u></b>				
<b><u>Cutting down and removing, grubbing up roots and filling in holes</u></b>				
3 Hedge not exceeding 2m high I 1	m	1		
4 Tree exceeding 200mm and not exceeding 500mm girth I 2	No	2		
5 Tree exceeding 500mm and not exceeding 1000mm girth I 2	No	2		
<b><u>BULK EXCATIONS</u></b>				
<b><u>Excavation in earth</u></b>				
6 Cut to form platform over site between buildings, retaining walls, etc., to reduce levels and dispose in prescribed stock piles on site I 1112	m <sup>3</sup>	1 112		
<b><u>Extra over bulk excavation in earth for excavation in</u></b>				
7 Soft rock I 111	m <sup>3</sup>	111		
8 Hard rock I 55	m <sup>3</sup>	55		
<b><u>Extra over bulk excavation in earth for breaking up and removing</u></b>				
9 Brickwork I 373	m <sup>3</sup>	373		
10 Unreinforced concrete I 187	m <sup>3</sup>	187		
11 Reinforced concrete I 187	m <sup>3</sup>	187		
Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<b><u>Extra over all excavations for carting away</u></b>				
12	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor I 263	m <sup>3</sup>	263		
	<b><u>Keeping excavations free of water</u></b>				
13	Keeping excavations free of water other than subterranean water I 1	Item			
	<b><u>Compaction of surfaces</u></b>				
14	Compaction of ground surfaces under pavings etc, including scarifying for a depth of 200mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density I 18659	m <sup>2</sup>	18 659		
	<b><u>LAYER WORK</u></b>				
	<b><u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site</u></b>				
15	Platforms, compacted to 90% Mod AASHTO density I 847	m <sup>3</sup>	847		
	<b><u>Filling supplied by the contractor under parking areas, roadways, etc</u></b>				
16	Subbase course of G5 natural gravel material, compacted to 93% Mod AASHTO density I 127	m <sup>3</sup>	127		
17	Base course of G7 natural gravel material, compacted to 93% Mod AASHTO density I 127	m <sup>3</sup>	127		
	<b><u>Prescribed density tests on filling</u></b>				
18	"Modified AASHTO Density" test I 12	No	12		
	<b><u>EARTHWORKS (PROVISIONAL)</u></b>				
	<b><u>EXCAVATIONS</u></b>				
	<b><u>Excavation in earth not exceeding 2m deep</u></b>				
19	Reduced levels under floors A 62                      B 19                      C 52 D 67                      E 35                      F 51 G 45                      H 57                      J 60 K 51                      L 45                      M 2 N 12	m <sup>3</sup>	558		
	Carried to Collection				
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				Unit	Quantity	Rate	Amount
20	Trenches			m <sup>3</sup>	1 038		
	A 136	B 56	C 105				
	D 94	E 63	F 111				
	G 63	H 97	J 118				
	K 89	L 63	M 13				
	N 30						
21	Holes			m <sup>3</sup>	4.62		
	A 0.85	B 0.21	C 0.42				
	D 0.47	E 0.25	F 0.47				
	G 0.34	H 0.42	J 0.38				
	K 0.47	L 0.34					
	<b><u>EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER</u></b>						
	<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>						
22	Soft rock			m <sup>3</sup>	55		
	A 7	B 3	C 5				
	D 5	E 3	F 6				
	G 3	H 5	J 6				
	K 6	L 3	M 1				
	N 2						
23	Hard rock			m <sup>3</sup>	27		
	A 3	B 1	C 3				
	D 2	E 2	F 3				
	G 2	H 2	J 3				
	K 3	L 2	N 1				
	<b><u>Extra over all excavations for carting away</u></b>						
24	Surplus material from excavations and stock piles on site to a dumping site to be located by the contractor			m <sup>3</sup>	1 060		
	A 136	B 56	C 105				
	D 94	E 63	F 111				
	G 63	H 97	J 118				
	K 111	L 63	M 13				
	N 30						
	<b><u>Risk of collapse of excavations</u></b>						
25	Sides of trench and hole excavations not exceeding 1,5m deep			m <sup>2</sup>	2 646		
	A 339	B 141	C 262				
	D 234	E 157	F 277				
	G 157	H 241	J 295				
	K 277	L 157	M 34				
	N 75						
	<b><u>Keeping excavations free of water</u></b>						
26	Keeping excavations free of water.			Item			
	I 1						
Carried to Collection						R	
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Earthworks							

			Unit	Quantity	Rate	Amount
	<b><u>FILLING, ETC.</u></b>					
	<b><u>Earth filling obtained from the excavations and prescribed stock piles on site, compacted to 90% Mod AASHTO density</u></b>					
27	Under floors, steps, pavings, etc.		m <sup>3</sup>	584		
	A 62 B 19 C 52					
	D 67 E 35 F 64					
	G 45 H 57 J 60					
	K 64 L 45 M 2					
	N 12					
28	Backfilling to trenches, holes, etc.		m <sup>3</sup>	603		
	A 77 B 32 C 60					
	D 53 E 36 F 63					
	G 36 H 55 J 67					
	K 63 L 36 M 8					
	N 17					
	<b><u>Earth filling supplied by the contractor, compacted to 95% Mod AASHTO density</u></b>					
29	Under floors, steps, pavings, etc.		m <sup>3</sup>	299		
	A 31 B 15 C 26					
	D 33 E 18 F 32					
	G 23 H 29 J 30					
	K 32 L 23 M 1					
	N 6					
	<b><u>Coarse river sand filling supplied by the contractor</u></b>					
30	Under floors etc.		m <sup>3</sup>	271		
	A 35 B 12 C 22					
	D 33 E 15 F 24					
	G 23 H 29 J 25					
	K 24 L 23 M 2					
	N 4					
	<b><u>Compaction of surfaces</u></b>					
31	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density		m <sup>2</sup>	2 903		
	A 312 B 95 C 261					
	D 333 E 177 F 318					
	G 224 H 286 J 301					
	K 318 L 224 M 8					
	N 46					
	Carried to Collection					
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			Unit	Quantity	Rate	Amount
	<b><u>Prescribed density tests on filling</u></b>					
32	"Modified AASHTO Density" test			No	22	
	A	2	B	1	C	1
	D	1	E	2	F	3
	G	2	H	1	J	2
	K	3	L	2	M	1
	N	1				
	<b><u>Soil insecticide</u></b>					
33	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming			m <sup>2</sup>	2 916	
	A	312	B	95	D	594
	E	177	F	318	G	224
	H	286	J	301	K	318
	L	224	M	8	N	59
34	To bottoms and sides of trenches etc.			m <sup>2</sup>	3 122	
	A	475	B	197	C	236
	D	211	E	220	F	249
	G	220	H	217	J	413
	K	249	L	283	M	47
	N	105				
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<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 2</u></b>				
<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
 <b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>				
<b><u>PREAMBLES</u></b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
<b><u>Cost of tests</u></b>				
The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)				
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Concrete, Formwork And Reinforcement				

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		Unit	Quantity	Rate	Amount
<b><u>Formwork</u></b>					
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. 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. 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"					
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
<b><u>10MPa/19mm concrete</u></b>					
1	Surface blinding under footings and bases	m <sup>3</sup>	55		
A	7	B	3	C	5
D	5	E	3	F	6
G	3	H	5	J	6
K	6	L	3	M	1
N	2				
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
<b><u>20MPa/13mm agg concrete</u></b>					
2	Concrete Apron cast in panels	m <sup>3</sup>	74		
A	6	B	3	C	5
D	8	E	4	F	10
G	5	H	9	J	6
K	10	L	5	M	1
N	2				
3	Surface bed edge thickening	m <sup>3</sup>	38		
A	3	B	2	C	3
D	4	E	2	F	5
G	2	H	5	J	3
K	5	L	2	M	1
N	1				
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				Unit	Quantity	Rate	Amount
<b><u>25MPa/20mm concrete</u></b>							
4	Strip footings			m <sup>3</sup>	317		
	A	41	B 17 C 31				
	D	28	E 19 F 33				
	G	19	H 29 J 35				
	K	33	L 19 M 4				
	N	9					
5	Slabs, including beams and inverted beams			m <sup>3</sup>	4		
	A	4					
6	Surface beds cast in panels on waterproofing			m <sup>3</sup>	395		
	A	57	B 12 C 34				
	D	43	E 23 F 41				
	G	29	H 37 J 39				
	K	41	L 29 M 2				
	N	8					
7	Ramps			m <sup>3</sup>	18		
	I	18					
8	Walls			m <sup>3</sup>	8		
	A	8					
<b><u>TEST CUBES</u></b>							
9	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)			No	29		
	A	3	C 2 D 4				
	E	2	F 4 G 1				
	H	3	J 2 K 4				
	L	2	M 1 N 1				
<b><u>CONCRETE SUNDRIES</u></b>							
<b><u>Finishing top surfaces of concrete smooth with a power float</u></b>							
10	Surface beds, slabs, etc			m <sup>2</sup>	2 910		
	A	437	B 95 C 261				
	D	333	E 177 F 318				
	G	165	H 286 J 301				
	K	318	L 165 M 8				
	N	46					
11	Aprons to falls			m <sup>2</sup>	732		
	A	66	B 32 C 57				
	D	94	E 45 F 69				
	G	52	H 97 J 63				
	K	69	L 52 M 11				
	N	25					
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		Unit	Quantity	Rate	Amount
<b><u>ROUGH FORMWORK</u></b>					
<b><u>Rough formwork to sides</u></b>					
12	Walls	m <sup>2</sup>	61		
	A 61				
13	Edges of surface bed panels, ramps, etc., not exceeding 300mm high or wide	m	883		
	A 83 B 70 C 72				
	D 96 E 56 F 87				
	G 65 H 78 J 79				
	K 87 L 65 M 14				
	N 31				
14	Sloping and stepped outer edges of stairs not exceeding 400mm high extreme	m	192		
	A 25 C 15 D 35				
	F 20 H 32 J 25				
	K 20 L 20				
15	Slabs	m <sup>2</sup>	10		
	A 10				
16	10mm Joints not exceeding 300mm high or wide	m	1 101		
	A 169 B 70 C 131				
	D 117 F 139 G 65				
	H 121 J 79 K 139				
	L 65 M 2 N 4				
<b><u>Saw cut joints</u></b>					
17	20 x 3mm Saw cut joints in top of concrete	m	257		
	A 25 B 12 C 22				
	D 33 E 15 F 22				
	G 20 H 29 J 25				
	K 22 L 20 N 12				
<b><u>Vertical joggle construction joints through concrete, including thick cement slurry to one face</u></b>					
18	Surface beds not exceeding 300mm thick	m	205		
	A 20 B 10 C 20				
	D 25 E 20 F 19				
	G 15 H 22 J 20				
	K 19 L 15				
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		Unit	Quantity	Rate	Amount
<b><u>REINFORCEMENT (PROVISIONAL)</u></b>					
<b><u>Drawings</u></b>					
STR 110 R01 - BLOCK B - GRADE 'R' CLASSROOM FOUNDATION REINFORCEMENT LAYOUT DETAILS & SCHEDULESTR 120 R01 - BLOCK A-ABLUTIONS BLOCK: BASES AND SURFACE SLABS REINFORCEMENT LAYOUT: DETAILS STR 210 R01 - BLOCK C: FOUNDATIONS REINFORCEMENT LAYOUT: DETAILSSTR 310 R01 - BLOCK D - KITCHEN BUILDING: FOUNDATIONS REINFORCEMENT LAYOUTS DETAILSSTR 410 R01 - BLOCK E - TEAM TEACHING BUILDING: FOUNDATIONS REBAR LAYOUT DETAILS STR 510 R01 - BLOCK F - TEAM TEACHING BUILDING: FOUNDATIONS REINFORCEMENT LAYOUTS DETAILSSTR 610 R01 - BLOCKS G, H & I ABLUTIONS BLKS: FOUNDATIONS & SURFACE BEDS REINFORCEMENT LAYOUTS: DETAILS					
<b><u>Mild steel reinforcement to structural concrete work</u></b>					
<b><u>High tensile steel reinforcement to structural concrete work</u></b>					
19	12mm Diameter bars	Tonnes	6.11		
	A 1.09 B 0.27 C 0.53 D 0.53 E 0.26 F 0.71 G 0.28 H 0.41 J 0.69 K 0.71 L 0.28 M 0.12 N 0.23				
20	10mm Diameter bars	Tonnes	8		
	A 2 C 1 D 1 F 1 H 1 J 1 K 1				
<b><u>Fabric reinforcement</u></b>					
21	Type 100 fabric reinforcement in aprons, etc	m <sup>2</sup>	811		
	A 66 B 32 C 54 D 94 E 45 F 110 G 52 H 97 J 63 K 110 L 52 M 11 N 25				
22	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m <sup>2</sup>	3 172		
	A 432 B 95 C 261 D 333 E 177 F 318 G 165 H 286 J 301 K 318 L 432 M 8 N 46				
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<b><u>SECTION NO. 4</u></b>				
<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 3</u></b>				
<b><u>PRECAST CONCRETE</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
<b><u>PRECAST CONCRETE</u></b>				
<b><u>PREAMBLES</u></b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
<b><u>Sizes</u></b>				
Blocks, sills, etc measured linear shall be made in suitable lengths. Large size setting out drawings shall be prepared where necessary and submitted to the architect for approval before moulds are made				
<b><u>General</u></b>				
Where kerbstones, blocks, etc are laid in ground, descriptions shall be deemed to include necessary excavation, filling in and ramming				
<b><u>PRECAST CONCRETE</u></b>				
<b><u>600 x 600 x 50mm Precast concrete paving slabs with grey exposed aggregate finish, laid on 25mm thick river sand bed including preparation of ground or filling</u></b>				
1	Paving laid with butt joints to falls (Roads)	m <sup>2</sup>	954	
I	954			
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Precast Concrete				

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					Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>								
<b><u>BUILDING WORKS</u></b>								
<b><u>BILL NO. 4</u></b>								
<b><u>MASONRY</u></b>								
<b><u>Key:</u></b>					<b><u>Location Description:</u></b>			
Un/A					Unallocated			
A					Administrative Block			
B					1 Class Grade R			
C					2 Class Grade R			
D					4 Classroom			
E					Multipurpose + HOD			
F					3 Class+Ablution A			
G					Science Laboratory			
H					3 Class+HOD			
J					Dining/Nutrition			
K					3 Class+Ablution B			
L					Media Centre			
M					Guard House			
N					Change Room			
I					General Item			
 <b><u>BRICKWORK IN FOUNDATIONS</u></b>								
<b><u>The Tenderer is referred to the relevant Clauses in the separate Supplementary Preambles hereunder and Department of Public Works PW371 document attached.</u></b>								
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u></b>								
1	Piers				m <sup>3</sup>	4.50		
	A	0.85	B	0.17	C	0.34		
	D	0.47	E	0.25	F	0.47		
	G	0.34	H	0.42	J	0.38		
	K	0.47	L	0.34				
2	Half brick walls				m <sup>2</sup>	184		
	A	32	B	24	C	41		
	E	6	F	24	G	3		
	H	3	J	21	K	24		
	L	3	M	3				
3	230 brick walls				m <sup>2</sup>	747		
	A	103	B	32	C	64		
	D	94	E	51	F	84		
	H	97	J	97	K	84		
	M	11	N	30				
4	245mm brick walls				m <sup>2</sup>	22		
	E	6	G	8	L	8		
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Masonry								

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		Unit	Quantity	Rate	Amount
<b><u>SUPERSTRUCTURE</u></b>					
<b><u>Brickwork of NFP bricks in class II mortar</u></b>					
5	Piers.	m <sup>3</sup>	15.05		
	A 1.27 B 0.25 C 8.83				
	D 0.7 E 0.38 F 0.7				
	G 0.51 H 0.63 J 0.57				
	K 0.7 L 0.51				
6	Half brick walls	m <sup>2</sup>	370		
	A 32 B 63 C 108				
	E 6 F 62 G 3				
	H 7 J 21 K 62				
	L 3 M 3				
7	230mm brick walls	m <sup>2</sup>	1 425		
	A 103 B 73 C 60				
	D 174 E 99 F 191				
	G 113 H 170 J 97				
	K 191 L 113 M 11				
	N 30				
8	245mm brick walls	m <sup>2</sup>	14		
	E 6 G 8				
<b><u>FACE BRICKWORK</u></b>					
<b><u>Corobrik common bricks in cement mortar, pointed with 6mm square recessed horizontal and vertical joints:</u></b>					
9	Extra over brickwork for face brickwork.	m <sup>2</sup>	2 436		
	A 356 B 148 C 158				
	D 238 E 157 F 159				
	G 165 H 245 J 310				
	K 221 L 165 M 35				
	N 79				
10	Extra over brickwork for facing 220 x 220mm piers.	m <sup>2</sup>	117		
	A 22 B 4 C 9				
	D 12 E 7 F 12				
	G 9 H 11 J 10				
	K 12 L 9				
11	230mm Wide sill set sloping and slightly projecting.	m	333		
	A 24 B 16 C 26				
	D 42 E 21 F 40				
	G 28 H 26 J 26				
	K 40 L 28 M 8				
	N 8				
				<b>R</b>	
Carried to Collection					
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Masonry					
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			Unit	Quantity	Rate	Amount
12	Face brick-on-edge header course lintel.		m	333		
	A 24 B 16 C 26					
	D 42 E 21 F 40					
	G 28 H 26 J 26					
	K 40 L 28 M 8					
	N 8					
	<b><u>Prestressed fabricated precast lintels including necessary temporary supports:</u></b>					
13	110 x 70mm Lintels in lengths not exceeding 3m.		m	503		
	A 47 B 27 C 46					
	D 56 E 28 F 61					
	G 39 H 38 J 43					
	K 61 L 39 M 6					
	N 12					
	<b><u>Air bricks etc:</u></b>					
14	229 x 152mm Clay vermin proof air brick.		No	50		
	A 4 B 4 C 4					
	D 4 E 4 F 4					
	G 4 H 4 J 4					
	K 4 L 4 M 2					
	N 4					
	<b><u>Turning pieces to lintels, etc:</u></b>					
15	150mm Wide turning piece to lintels etc.		m	287		
	A 35 B 12 C 15					
	E 23 F 12 G 79					
	J 20 K 12 L 79					
16	230mm Wide turning piece to lintels etc.		m	238		
	A 25 B 12 C 12					
	D 17 E 14 F 20					
	G 18 H 16 J 35					
	K 20 L 18 M 6					
	N 25					
	<b><u>Galvanised wire ties etc:</u></b>					
17	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.		No	234		
	A 25 B 12 C 15					
	D 24 E 22 F 20					
	G 22 H 18 J 20					
	K 20 L 22 M 6					
	N 8					
	<b><u>Brickwork reinforcement:</u></b>					
18	75mm Wide reinforcement built in horizontally		m	1 852		
	A 376 B 240 C 411					
	E 56 F 236 G 28					
	J 214 K 236 L 28					
	M 27					
	Carried to Collection					
	Section No. 4					
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	Masonry					

					Unit	Quantity	Rate	Amount
19	150mm Wide reinforcement built in horizontally				m	8 192		
	A	980	B	323	C	605		
	D	907	E	416	F	842		
	G	468	H	965	J	966		
	K	842	L	468	M	109		
	N	301						
	<b><u>FIBRE CEMENT WINDOW CILLS</u></b>							
	<b><u>15mm Thick natural grey cills in single length</u></b>							
	<b><u>bedded in 4:1 sand cement mortar including metal</u></b>							
	<b><u>lugs, etc:</u></b>							
20	140mm Wide cills set flat and slightly projecting.				m	333		
	A	24	B	16	C	26		
	D	42	E	21	F	40		
	G	28	H	26	J	26		
	K	40	L	28	M	8		
	N	8						
Carried to Collection							R	
Section No. 4								
Bill No. 4								
Masonry								

**BILL NO. 4**  
**MASONRY**  
**COLLECTION**

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Bill No. 4  
Masonry

				Unit	Quantity	Rate	Amount																																
<b><u>SECTION NO. 4</u></b>																																							
<b><u>BUILDING WORKS</u></b>																																							
<b><u>BILL NO. 5</u></b>																																							
<b><u>WATERPROOFING</u></b>																																							
<table><tr><td><b><u>Key:</u></b></td><td><b><u>Location Description:</u></b></td></tr><tr><td>Un/A</td><td>Unallocated</td></tr><tr><td>A</td><td>Administrative Block</td></tr><tr><td>B</td><td>1 Class Grade R</td></tr><tr><td>C</td><td>2 Class Grade R</td></tr><tr><td>D</td><td>4 Classroom</td></tr><tr><td>E</td><td>Multipurpose + HOD</td></tr><tr><td>F</td><td>3 Class+Ablution A</td></tr><tr><td>G</td><td>Science Laboratory</td></tr><tr><td>H</td><td>3 Class+HOD</td></tr><tr><td>J</td><td>Dining/Nutrition</td></tr><tr><td>K</td><td>3 Class+Ablution B</td></tr><tr><td>L</td><td>Media Centre</td></tr><tr><td>M</td><td>Guard House</td></tr><tr><td>N</td><td>Change Room</td></tr><tr><td>I</td><td>General Item</td></tr></table>								<b><u>Key:</u></b>	<b><u>Location Description:</u></b>	Un/A	Unallocated	A	Administrative Block	B	1 Class Grade R	C	2 Class Grade R	D	4 Classroom	E	Multipurpose + HOD	F	3 Class+Ablution A	G	Science Laboratory	H	3 Class+HOD	J	Dining/Nutrition	K	3 Class+Ablution B	L	Media Centre	M	Guard House	N	Change Room	I	General Item
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>																																						
Un/A	Unallocated																																						
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C	2 Class Grade R																																						
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J	Dining/Nutrition																																						
K	3 Class+Ablution B																																						
L	Media Centre																																						
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<b><u>WATERPROOFING</u></b>																																							
<b><u>PREAMBLES</u></b>																																							
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.																																							
SUPPLEMENTARY PREAMBLES																																							
Waterproofing Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs																																							
<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>																																							
<b><u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u></b>																																							
<b><u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u></b>																																							
1	Under surface beds			m²	2 905																																		
A	432	B	95	C	261																																		
D	333	E	177	F	318																																		
G	165	H	286	J	301																																		
K	318	L	165	M	8																																		
N	46																																						
Carried to Collection							R																																
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Bill No. 5																																							
Waterproofing																																							

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		Unit	Quantity	Rate	Amount
<b><u>JOINT SEALANTS ETC</u></b>					
<b><u>"Thioflex 600" two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc</u></b>					
2	6 x 10mm In saw cut joints in floors	m	357		
	A 83 B 10 C 12				
	D 59 E 25 F 17				
	G 25 H 58 J 22				
	K 17 L 25 N 4				
3	10 x 10mm In expansion joints in floors	m	968		
	A 169 B 40 C 67				
	D 117 E 52 F 83				
	G 65 H 117 J 79				
	K 83 L 65 N 31				
Carried to Collection					
				<b>R</b>	
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**BILL NO. 5**  
**WATERPROOFING**  
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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>				
<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 6</u></b>				
<b><u>ROOF COVERINGS</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
<b><u>ROOF COVERINGS ETC</u></b>				
PREAMBLES				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
SUPPLEMENTARY PREAMBLES				
Straight cutting				
Descriptions of all roof coverings are deemed to include for all straight cutting				
<i>The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified'</i>				
<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>				
Where roof coverings are fixed on top of rigid board insulation to purlins etc, descriptions of roof coverings shall include therefor Note that sheeting is also available in corten steel, stainless steel, copper and aluminium				
Carried to Collection			R	
Section No. 4				
Bill No. 6				
Roof Coverings				

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			Unit	Quantity	Rate	Amount
	<b><u>0.6mm thick, corrugated roof sheeting with "globalcoat" finish on one side, in single lengths fixed to 50 x 75mm timber purlins and 0.6mm galvanized sheet steel accessories with globalcoat" finish on one side, with 38x114mm wall plates, bracing, and prefabricated roof trusses as per specialist, and 76x76mm splayed eaves purlins, 15x225mm pressed fibre cement fascia boards</u></b>					
1	Roof coverings with pitches not exceeding 25 degrees			m <sup>2</sup>	3 845	
	A	474	B	150	C	285
	D	459	E	212	F	374
	G	312	H	395	J	397
	K	374	L	348	M	15
	N	50				
	<b><u>SHEET METAL FLASHINGS, LININGS, COPINGS, ETC</u></b>					
	<b><u>Ridge capping and flashings to be 0.6mm galvanised sheet iron with "globalcoat" finish on one side. with broad flute closures to suit roof profile where necessary, all in accordance with architects drawings and manufacturer's specifications</u></b>					
2	Head wall flashings 460mm girth.			m <sup>2</sup>	163	
	A	16	B	6	C	13
	D	17	E	9	F	17
	G	11	H	15	J	29
	K	17	L	11	M	2
	<b><u>ROOF AND WALL INSULATION</u></b>					
	<b><u>"Sisalation 420" or similar approved heavy industrial grade aluminium foil based insulation</u></b>					
3	Insulation laid taut over purlins (at approximately 1,80m centres) and fixed concurrent with roof covering, including taped laps and nylon straining wires			m <sup>2</sup>	2 231	
	A	312	B	95	C	13
	D	244	E	143	F	254
	G	165	H	231	J	301
	K	254	L	165	M	8
	N	46				
Carried to Collection						R
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Bill No. 6						
Roof Coverings						



**BILL NO. 6**  
**ROOF COVERINGS**  
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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>				
<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 7</u></b>				
<b><u>CARPENTRY AND JOINERY</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
<b><u>CARPENTRY AND JOINERY</u></b>				
PREAMBLES				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
SUPPLEMENTARY PREAMBLES				
Plate nailed timber roof truss construction				
The following is applicable in respect of roof trusses: Trusses are at maximum 1,250m centres. Roof covering is 0,6mm IBR profile sheeting on 50 x 75mm purlins. Ceilings are 6,4mm skimmed gypsum plasterboard sheeting on 38 x 38mm brandering. The references given in the descriptions refer to the respective types of trusses detailed on the architect's drawing numbered DOE-A-2000 accompanying these bills of quantities. The dimensions in the descriptions of the trusses are nominal and actual measurements shall be obtained from the architect and/or the site before design or fabrication commences				
Joinery				
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
Fixing				
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Bill No. 7				
Carpentry And Joinery				

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	Unit	Quantity	Rate	Amount
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
Decorative laminate finish				
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish				
<b><u>ROOFS, ETC.</u></b>				
<b><u>Plate nailed and cleated timber roof truss, prefabricated construction with minimum grade V4</u></b>				
1 Design, supply and erect the complete single pitch roof structure to new building (approx. 405m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block A - Administration)	No	1		
A 1				
2 Design, supply and erect the complete single pitch roof structure to new building (approx. 74m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block A - Administration - Veranda)	No	1		
A 1				
3 Design, supply and erect the complete single pitch roof structure to new building (approx. 131m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block B - 1 x Gr R Ablutions)	No	1		
B 1				
4 Design, supply and erect the complete single pitch roof structure to new building (approx. 38m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block B - 1 x Gr R Ablutions - Veranda)	No	1		
B 1				
5 Design, supply and erect the complete single pitch roof structure to new building (approx. 248m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block C - 2 x Gr R Ablutions)	No	1		
C 1				
6 Design, supply and erect the complete single pitch roof structure to new building (approx. 75m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block C - 2 x Gr R Ablutions - Veranda)	No	1		
C 1				
Carried to Collection			R	
Section No. 4				
Bill No. 7				
Carpentry And Joinery				

		Unit	Quantity	Rate	Amount
7	Design, supply and erect the complete single pitch roof structure to new building (approx. 324m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block D - 4 standard classrooms)	No	1		
	D 1				
8	Design, supply and erect the complete single pitch roof structure to new building (approx. 99m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block D - 4 standard classrooms - Veranda)	No	1		
	D 1				
9	Design, supply and erect the complete single pitch roof structure to new building (approx. 179m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block E - 1 standard Classroom 1 Multi-purpose HOD Office)	No	1		
	E 1				
10	Design, supply and erect the complete single pitch roof structure to new building (approx. 54m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block E - 1 standard classroom 1 Multi-purpose HOD Office - Veranda)	No	1		
	E 1				
11	Design, supply and erect the complete single pitch roof structure to new building (approx. 324m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block F - 3 standard classrooms Ablutions)	No	1		
	F 1				
12	Design, supply and erect the complete single pitch roof structure to new building (approx. 99m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block F - 3 standard classrooms Ablutions - Veranda)	No	1		
	F 1				
13	Design, supply and erect the complete single pitch roof structure to new building (approx. 223m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block G - 1 standard classroom Science Laboratory)	No	1		
	G 1				
Carried to Collection				R	
Section No. 4					
Bill No. 7					
Carpentry And Joinery					

		Unit	Quantity	Rate	Amount
14	Design, supply and erect the complete single pitch roof structure to new building (approx. 68m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. Block G - 1 standard classroom Science Laboratory - Veranda)	No	1		
	G 1				
15	Design, supply and erect the complete single pitch roof structure to new building (approx. 278m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block H - 3 standard classrooms HOD office)	No	1		
	H 1				
16	Design, supply and erect the complete single pitch roof structure to new building (approx. 85m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block H - 3 standard classrooms HOD office - Veranda)	No	1		
	H 1				
17	Design, supply and erect the complete single pitch roof structure to new building (approx. 323m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block J - Dining & Nutrition Centre)	No	1		
	J 1				
18	Design, supply and erect the complete single pitch roof structure to new building (approx. 89m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block J - Dining & Nutrition Centre - Veranda)	No	1		
	J 1				
19	Design, supply and erect the complete single pitch roof structure to new building (approx. 324m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block K - 3 standard classrooms Ablutions)	No	1		
	K 1				
20	Design, supply and erect the complete single pitch roof structure to new building (approx. 99m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block K - 3 standard classrooms Ablutions - Veranda)	No	1		
	K 1				
Carried to Collection				R	
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Bill No. 7					
Carpentry And Joinery					

		Unit	Quantity	Rate	Amount
21	Design, supply and erect the complete single pitch roof structure to new building (approx. 242m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block L - Media centre 1 standard classroom)	No	1		
	L 1				
22	Design, supply and erect the complete single pitch roof structure to new building (approx. 74m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block L - Media centre 1 standard classroom - Veranda)	No	1		
	L 1				
23	Design, supply and erect the complete single pitch roof structure to new building (approx. 20m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block M - Guard House)	No	1		
	M 1				
24	Design, supply and erect the complete single pitch roof structure to new building (approx. 80m <sup>2</sup> on flat) including purlins, rafters, braces, battens, gang boarding, wall plates, roof ties, gusset plates, bolts, etc. (Block N - Learners Change rooms ablutions)	No	1		
	N 1				
	<b><u>EAVES, VERGES, ETC</u></b>				
	<b><u>"Everite Nutec" medium density plain fibre cement boards</u></b>				
25	225 x 15mm Thick fascia (code: 041-202) with aluminium H-profile fascia joiners (code: 685-195) including drilling for and fixing with hot dip galvanised drive screws and washers	m	934		
	A 125      B 38      C 77				
	D 102      E 54      F 102				
	G 68      H 87      J 88				
	K 102      L 68      M 6				
	N 17				
26	200 x 80mm Moulded socketless barge board (code: 721-731) with uPVC H-profile barge joiners	m	252		
	A 40      B 20      C 20				
	D 20      E 20      F 16				
	G 20      H 20      J 20				
	K 16      L 20      M 10				
	N 10				
	Carried to Collection				
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	Carpentry And Joinery				
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		Unit	Quantity	Rate	Amount
<b><u>SKIRTINGS</u></b>					
<b><u>Wrought meranti with 19mm quarter round nailed to wall. All nails to be punched and filled. Finish 2 coats clear eggshell poly-urethane varnish (elsewhere)</u></b>					
27	19 x 75mm Skirtings, nailed	m	1 759		
	A 256 B 100 C 186				
	D 125 E 97 F 187				
	G 92 H 163 J 216				
	K 187 L 92 M 14				
	N 44				
<b><u>DOORS, ETC</u></b>					
<b><u>Wrought meranti fanlights hung to steel frames</u></b>					
28	44mm Framed, ledged and braced batten door 0,81 x 2,03m high of 40 x 110mm top rail and stiles, 20 x 150mm middle ledge and 20 x 110mm braces and 20 x 225mm bottom ledge filled in with 22mm V-jointed one side boarding and 150 x 800 x 1.2mm	No	30		
	B 1 C 2 D 4				
	E 2 F 5 G 2				
	H 4 K 5 L 2				
	M 1 N 2				
<b><u>Solid flush doors with hardwood veneer on both sides and two hardwood edge strips hung to steel frames</u></b>					
29	32mm Door 0,81 x 2,03m high with 150 x 813mm opening (D3)	No	71		
	A 17 B 7 C 14				
	E 3 F 7 G 2				
	H 1 J 10 K 7				
	L 2 M 1				
30	40mm Double door 1,61 x 2,03m high D12	No	1		
	A 1				
31	40mm Double door 1,50 x 2,03m high D11	No	1		
	A 1				
32	40mm Double door 1700 x 2100m high D7	No	2		
	J 2				
<b><u>JOINERY FITTINGS</u></b>					
<b><u>Chipboard</u></b>					
33	Cupboard unit 900mm high, overall size 1690mm x 638mm wide, fixed as per Architect's design (Detail DJ6)	No	1		
	A 1				
Carried to Collection				R	
Section No. 4					
Bill No. 7					
Carpentry And Joinery					

		Unit	Quantity	Rate	Amount
<b><u>JOINERY SUNDRIES</u></b>					
<b><u>Wrought meranti</u></b>					
34	300mm Thick book shelving, etc., of 22mm thick shelves at 290mm centres fixed to architects details (Detail DJ5)	m <sup>2</sup>	22		
	L 22				
35	332mm Thick shelving, etc., of 32 x 44mm thick shelves at 300mm centres fixed to architects details (Detail DJ2)	m <sup>2</sup>	19		
	L 19				
36	2,400mm Thick bag rack shelving, etc., of 22mm thick shelves at 258mm centres fixed to architects details (Detail DJ4)	m <sup>2</sup>	14		
	C 14				
37	22 x 1,500mm High raking magazine shelving, etc., of 22mm thick mounting board and end panels with 50x25x1.5mm bronze anodized aluminium tray fixed to architects details (Detail DJ1)	m	15		
	L 15				
38	32 x 800mm Wide laminated worktop with rounded edges screwed to steel brackets (elsewhere) with 50x32mm skirting to rear of worktops all fixed brass self tapping screws and pelleted (DJ3)	m	27		
	G 27				
<b><u>NOTICE BOARDS, KEYBOARDS, ETC</u></b>					
<b><u>pinning boards</u></b>					
39	10mm Pinning boards 1,20m high glued to plastered walls (Detail F10)	No	20		
	B 1 C 2 D 4				
	E 1 F 3 G 2				
	H 3 K 3 L 1				
40	Green writing board 1140mm high with chalk rail plugged (Detail DJ10)	No	21		
	B 1 C 2 D 4				
	E 1 F 3 G 2				
	H 3 K 3 L 2				
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	Unit	Quantity	Rate	Amount
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<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 8</u></b>				
<b><u>CEILINGS PARTITIONS AND ACCESS FLOORING</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
 <b><u>CEILINGS, ETC.</u></b>				
<b>PREAMBLES</b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
<b>SUPPLEMENTARY PREAMBLES</b>				
<b>Descriptions</b>				
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete				
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere				
<b>Proprietary suspended ceilings</b>				
Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)				
Carried to Collection			<b>R</b>	
Section No. 4				
Bill No. 8				
Ceilings Partitions And Access Flooring				

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		Unit	Quantity	Rate	Amount
<b><u>NAILED UP CEILINGS</u></b>					
<b><u>6,4mm Classic Flush plastered ceiling with square edged Rhinoboard fixed print side up with 35mm RhinoBoard Sharp Point Screws at 150mm centres to 38 x 50mm (with 50mm dimension vertical) SA Pine branderling at 400mm centres in one direction. All joints to be covered with Rhinotape fixed over joints (double over butt joints) and plastered with 3mm to 6mm thick RhinoLite Multipurpose plaster, all fixed to trusses at centres exceeding 1000mm, not exceeding 1200mm in accordance with the manufacturers recommendations.</u></b>					
1	Horizontal ceilings	m <sup>2</sup>	2 051		
	A 312 B 76 C 185				
	D 178 E 135 F 200				
	G 174 H 140 J 231				
	K 200 L 153 M 8				
	N 59				
2	Sloping ceilings	m <sup>2</sup>	457		
	B 19 C 38 D 65				
	E 22 F 49 G 39				
	H 56 J 70 K 49				
	L 50				
3	Extra over ceilings for 650 x 650mm trapdoor	No	33		
	A 4 B 1 C 2				
	D 4 E 1 F 4				
	G 2 H 3 J 4				
	K 4 L 2 N 2				
<b><u>insulation</u></b>					
4	50mm Insulation lapped not less than 100mm along all edges and laid on top of branderling between roof timbers, etc. (Type W01)	m <sup>2</sup>	2 498		
	A 312 B 95 C 204				
	D 271 E 143 F 254				
	G 165 H 231 J 301				
	K 252 L 203 M 8				
	N 59				
<b><u>gypsum plasterboard cornices</u></b>					
5	76mm Coved cornices, nailed	m	1 729		
	A 256 B 70 C 186				
	D 125 E 97 F 187				
	G 92 H 163 J 216				
	K 187 L 92 M 14				
	N 44				
Carried to Collection				R	
Section No. 4					
Bill No. 8					
Ceilings Partitions And Access Flooring					

**BILL NO. 8**  
**CEILINGS PARTITIONS AND ACCESS FLOORING**  
**COLLECTION**

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Amount

Carried To Section Summary

R

Section No. 4  
Bill No. 8  
Ceilings Partitions And Access Flooring

				Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>							
<b><u>BUILDING WORKS</u></b>							
<b><u>BILL NO. 9</u></b>							
<b><u>FLOOR COVERINGS</u></b>							
<b><u>Key:</u></b>				<b><u>Location Description:</u></b>			
Un/A				Unallocated			
A				Administrative Block			
B				1 Class Grade R			
C				2 Class Grade R			
D				4 Classroom			
E				Multipurpose + HOD			
F				3 Class+Ablution A			
G				Science Laboratory			
H				3 Class+HOD			
J				Dining/Nutrition			
K				3 Class+Ablution B			
L				Media Centre			
M				Guard House			
N				Change Room			
I				General Item			
<b><u>FLOOR COVERINGS, ETC.</u></b>							
PREAMBLES							
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.							
<b><u>FLOOR COVERINGS</u></b>							
<b><u>300 x 300 x 2.5mm semi-flexible vinyl tiles (colour: two tone pattern)</u></b>							
1	On floors			m²	1 891		
	A	278	B 80	C	156		
	D	244	E 128	F	183		
	G	165	H 207	J	12		
	K	183	L 203	M	6		
	N	46					
<b><u>SKIRTINGS, NOSINGS, ETC</u></b>							
2	25 x 2mm Vinyl edging strips			m	1 181		
	A	83	B 40	C	186		
	D	163	E 52	F	187		
	G	65	H 192	J	20		
	K	187	M 6				
Carried to Collection						R	
Section No. 4							
Bill No. 9							
Floor Coverings							

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				Unit	Quantity	Rate	Amount
<b><u>POLISH, SEALERS, ETC</u></b>							
<b><u>Three coats wax polish</u></b>							
3	On vinyl floors.			m <sup>2</sup>	1 832		
	A	278	B 95	C	204		
	D	244	E 128	F	183		
	G	165	H 85	J	12		
	K	183	L 203	M	6		
	N	46					
Carried to Collection						R	
Section No. 4							
Bill No. 9							
Floor Coverings							

**BILL NO. 9**  
**FLOOR COVERINGS**  
**COLLECTION**

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Amount

Carried To Section Summary

R

				Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>							
<b><u>BUILDING WORKS</u></b>							
<b><u>BILL NO. 10</u></b>							
<b><u>IRONMONGERY</u></b>							
<b><u>Key:</u></b>		<b><u>Location Description:</u></b>					
Un/A		Unallocated					
A		Administrative Block					
B		1 Class Grade R					
C		2 Class Grade R					
D		4 Classroom					
E		Multipurpose + HOD					
F		3 Class+Ablution A					
G		Science Laboratory					
H		3 Class+HOD					
J		Dining/Nutrition					
K		3 Class+Ablution B					
L		Media Centre					
M		Guard House					
N		Change Room					
I		General Item					
 <b><u>IRONMONGERY</u></b>							
PREAMBLES							
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.							
SUPPLEMENTARY PREAMBLES							
Finishes to ironmongery							
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded							
<b><u>HINGES, BOLTS, ETC</u></b>							
<b><u>Approved</u></b>							
1	100mm Steel hinge			No	210		
	A 38	B 16	C 32				
	D 8	E 10	F 24				
	G 8	H 10	J 24				
	K 24	L 8	M 4				
	N 4						
Carried to Collection						R	
Section No. 4							
Bill No. 10							
Ironmongery							

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				Unit	Quantity	Rate	Amount
2	293/E41 WC indicator bolt			No	38		
	A 5 B 3 C 12						
	F 7 J 3 K 7						
	M 1						
3	Four lever mortice lockset			No	96		
	A 19 B 8 C 16						
	D 4 E 5 F 12						
	G 4 H 5 J 3						
	K 12 L 4 M 2						
	N 2						
	<b><u>PUSH PLATES AND KICKING PLATES</u></b>						
	<b><u>1,2mm Satin finish stainless steel plates counter sunk screwed along edges at not exceeding 200mm centres</u></b>						
4	150 x 800mm Kick plate			No	8		
	A 4 J 4						
	<b><u>BATHROOM ACCESSORIES</u></b>						
	<b><u>Specificaton as per Achitects schedule</u></b>						
5	Chromium plated toilet roll holder, plugged and screwed to wall with stainless steel screws			No	38		
	A 5 B 3 C 12						
	F 7 J 3 K 7						
	M 1						
	<b><u>Specificaton as per Achitects schedule.</u></b>						
6	Feminine hygiene pedal bins			No	15		
	A 3 B 1 C 2						
	F 4 J 1 K 4						
	<b><u>Specificaton as per Achitects schedule.</u></b>						
7	Surface mounted soap dispenser, (code:"B-2111") plugged			No	31		
	A 5 B 2 C 4						
	F 8 J 3 K 8						
	M 1						
	<b><u>Manufactured as per Achitects schedule.</u></b>						
8	Hinged arm supports (code:L12603.3801-02)			No	8		
	A 4 J 4						
9	Wall mounting sets (code: L12806.0000-00)			No	4		
	A 2 J 2						
Carried to Collection							
Section No. 4							
Bill No. 10							
Ironmongery							

**BILL NO. 10**  
**IRONMONGERY**  
**COLLECTION**

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Amount

Carried To Section Summary

R

	Unit	Quantity	Rate	Amount																																
<b><u>SECTION NO. 4</u></b>																																				
<b><u>BUILDING WORKS</u></b>																																				
<b><u>BILL NO. 11</u></b>																																				
<b><u>STRUCTURAL STEELWORK</u></b>																																				
<table><tr><td><b><u>Key:</u></b></td><td><b><u>Location Description:</u></b></td></tr><tr><td>Un/A</td><td>Unallocated</td></tr><tr><td>A</td><td>Administrative Block</td></tr><tr><td>B</td><td>1 Class Grade R</td></tr><tr><td>C</td><td>2 Class Grade R</td></tr><tr><td>D</td><td>4 Classroom</td></tr><tr><td>E</td><td>Multipurpose + HOD</td></tr><tr><td>F</td><td>3 Class+Ablution A</td></tr><tr><td>G</td><td>Science Laboratory</td></tr><tr><td>H</td><td>3 Class+HOD</td></tr><tr><td>J</td><td>Dining/Nutrition</td></tr><tr><td>K</td><td>3 Class+Ablution B</td></tr><tr><td>L</td><td>Media Centre</td></tr><tr><td>M</td><td>Guard House</td></tr><tr><td>N</td><td>Change Room</td></tr><tr><td>I</td><td>General Item</td></tr></table>					<b><u>Key:</u></b>	<b><u>Location Description:</u></b>	Un/A	Unallocated	A	Administrative Block	B	1 Class Grade R	C	2 Class Grade R	D	4 Classroom	E	Multipurpose + HOD	F	3 Class+Ablution A	G	Science Laboratory	H	3 Class+HOD	J	Dining/Nutrition	K	3 Class+Ablution B	L	Media Centre	M	Guard House	N	Change Room	I	General Item
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>																																			
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<b><u>STRUCTURAL STEELWORK</u></b>																																				
PREAMBLES																																				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.																																				
SUPPLEMENTARY PREAMBLES																																				
Descriptions Descriptions of bolts shall be deemed to include nuts and washers 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																																				
<b><u>STEEL COLUMNS AND BEAMS</u></b>																																				
<b><u>Welded columns in single lengths with flat section base, top, bearer and connection plates, bolted to concrete</u></b>																																				
1		100 x 100mm Galvanized steel poles embedded in concrete, holding timber beam and rafter	m	299.60																																
A	56	B 11.2	C 22.4																																	
D	30.8	E 16.8	F 30.8																																	
G	22.4	H 28	J 25.2																																	
K	30.8	L 25.2																																		
Carried To Section Summary			R																																	
Section No. 4																																				
Bill No. 11																																				
Structural Steelwork																																				

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					Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>								
<b><u>BUILDING WORKS</u></b>								
<b><u>BILL NO. 12</u></b>								
<b><u>METALWORK</u></b>								
<b><u>Key:</u></b>								
<b><u>Location Description:</u></b>								
Un/A Unallocated								
A Administrative Block								
B 1 Class Grade R								
C 2 Class Grade R								
D 4 Classroom								
E Multipurpose + HOD								
F 3 Class+Ablution A								
G Science Laboratory								
H 3 Class+HOD								
J Dining/Nutrition								
K 3 Class+Ablution B								
L Media Centre								
M Guard House								
N Change Room								
I General Item								
<b><u>STEEL WELDED SCREENS, GATES, ETC</u></b>								
<b><u>Screens and gates</u></b>								
<b><u>All metal work shall be galvanised steel</u></b>								
1	L-shaped cleat formed of 50 x 6mm flat section 150mm girth once holed for bolt and welded on				No	1		
	A	1						
2	Single gate 877 x 2100mm high of 50 x 6mm flat section outer frame and 25 x 25 x 3mm angle section inner frame welded to outer frame, filled in with "Mentis Flatex" type 352 expanded metal panel fixed all round to inner frame with 20 x 20 x 3mm angle section fixing beads bolted on with and including 6mm diameter bolts at 500mm centres and fitted with a pair of suitable hinges welded to post and lockable sliding bolt with keep in gate post				No	27		
	B	1	C	2	D	4		
	E	2	F	5	G	2		
	H	4	K	5	L	2		
3	Double gate 1677 x 2100mm high, each leaf of 50 x 50 x 2mm hollow section frame and 75 x 25 x 2mm hollow section horizontal middle rail, filled in with 25 x 25 x 2mm hollow section vertical stiles at 150mm centres, each leaf fitted with a pair of suitable hinges bolted to wall with and including two 16mm expansion bolts, and the gate with hasp and staple and 12mm drop bolt welded on				No	7		
	A	2	J	5				
Carried to Collection							R	
Section No. 4								
Bill No. 12								
Metalwork								

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		Unit	Quantity	Rate	Amount
<b><u>PRESSED STEEL DOOR FRAMES</u></b>					
<b><u>1,2mm Rebated frames suitable for half brick walls</u></b>					
4	Frame for door 813 x 2032mm high	No	68		
	A 17 B 7 C 14				
	E 3 F 6 G 2				
	H 1 J 10 K 6				
	L 2				
<b><u>1,2mm Double rebated frames suitable for one brick walls with galvanised finish and 2 brass butt hinges per door leaf</u></b>					
5	Frame for door 813 x 2032mm high	No	29		
	B 1 C 2 D 4				
	E 2 F 6 G 2				
	H 4 K 6 L 2				
6	Frame for double door 1613 x 2032mm high	No	4		
	A 2 J 2				
<b><u>ALUMINIUM CASEMENT WINDOWS (CPAP WORK GROUP NO. 140)</u></b>					
<b><u>Powder coated casement window, complete with sub frames, ironmongery, glass, sealing, etc and fixing to brickwork or concrete</u></b>					
7	Window type W1, size 987x 978mm high	No	108		
	A 3 B 1 C 2				
	D 20 E 9 F 15				
	G 13 H 16 K 15				
	L 14				
8	Window type W2, size 988x 1445mm high	No	161		
	A 19 B 11 C 22				
	D 20 F 15 G 14				
	H 17 J 13 K 15				
	L 15				
9	Window type W3, size 1200x 600mm high, with fixed window	No	88		
	B 4 C 8 D 12				
	E 6 F 9 G 8				
	H 10 J 13 K 9				
	L 9				
10	Window type W4, size 1200x 600mm high, with fixed window	No	26		
	A 6 F 7 J 6				
	K 7				
11	Window type W5, size 600x 600mm high, with fixed window	No	20		
	B 4 C 8 F 4				
	K 4				
Carried to Collection				R	
Section No. 4					
Bill No. 12					
Metalwork					

		Unit	Quantity	Rate	Amount
12	Window type W8, size 800x 600mm high, with fixed window M 1	No	1		
13	Window type W6, size 2000 x 1200mm high, with fixed window A 2 M 2	No	4		
14	Window type W7, size 2700 x 1200mm high M 1	No	1		
15	Window type W10, size 100 x 978mm high, with fixed window E 11 N 10	No	21		
	<b><u>GALVANISED PRESSED STEEL CAGE FOR LP GAS BOTTLES</u></b>				
16	2000 X 1600 X 600mm cage G 1 J 1	No	2		
Carried to Collection					
Section No. 4					
Bill No. 12					
Metalwork					

**BILL NO. 12**  
**METALWORK**  
**COLLECTION**

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Carried To Section Summary

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>				
<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 13</u></b>				
<b><u>PLASTERING</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
 <b><u>PLASTERING</u></b>				
<b>PREAMBLES</b>				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
<b>SUPPLEMENTARY PREAMBLES</b>				
Testing to be done by an accredited independent testing specialist, or by the provision of independently certified test date to demonstrate compliance with the Specification as set out below				
Testing to include both light tap and heavy weight impact using a 4kg mass in compliance with the BRE screed tester requirements				
Maximum indentation not to exceed 3mm				
Alternative substrate testing methods may be put forward for consideration and acceptance by the Principal Agent				
All test results to be provided in Microsoft Excel format with unique numbers and the positions of tests referenced and indicated on a floor plan (floor plan to be provided by Principal Agent.)				
In all instances of results failing to comply as determined by the Principal Agent, additional tests to prove final compliance will be for the account of the contractor				
Carried to Collection			R	
Section No. 4				
Bill No. 13				
Plastering				

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		Unit	Quantity	Rate	Amount
<b><u>EPOXY FLOOR COATINGS</u></b>					
<b><u>2 Part epoxy primer with seal coat (colour: Grey) as per manufacturer's specifications</u></b>					
1	On screeded floors	m <sup>2</sup>	134		
	J 134				
2	Skirtings 60mm high	m	200		
	J 200				
<b><u>SCREEDS</u></b>					
<b><u>Screeds on concrete</u></b>					
3	30mm Thick on floors and landings	m <sup>2</sup>	2 455		
	A 312 B 95 C 261				
	D 244 E 143 F 254				
	G 165 H 207 J 301				
	K 254 L 165 M 8				
	N 46				
4	30mm Thick on narrow widths	m <sup>2</sup>	46		
	A 4 B 10 C 12				
	D 2 E 2 F 3				
	G 2 H 2 J 2				
	K 3 L 2 M 1				
	N 1				
<b><u>Screeds wood floated on concrete</u></b>					
5	Average 50mm thick on floors to falls	m <sup>2</sup>	711		
	A 120 B 28 C 56				
	D 74 E 40 F 76				
	G 50 H 63 J 64				
	K 76 L 64				
<b><u>INTERNAL PLASTER</u></b>					
<b><u>Two coat plaster with gypsum finish on brickwork</u></b>					
6	On walls	m <sup>2</sup>	1 688		
	A 205 B 80 C 159				
	D 183 E 78 F 216				
	G 74 H 187 J 173				
	K 216 L 74 M 13				
	N 30				
<b><u>EXTERNAL PLASTER</u></b>					
<b><u>Cement plaster on brickwork</u></b>					
7	On walls	m <sup>2</sup>	861		
	A 78 B 40 C 85				
	D 83 E 51 F 117				
	G 61 H 73 J 74				
	K 117 L 61 M 7				
	N 14				
Carried to Collection				R	
Section No. 4					
Bill No. 13					
Plastering					

**BILL NO. 13**  
**PLASTERING**  
**COLLECTION**

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Amount

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Carried To Section Summary

R

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>				
<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 14</u></b>				
<b><u>TILING</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
 <b><u>TILING</u></b>				
PREAMBLES				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
SUPPLEMENTARY PREAMBLES				
Descriptions 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				
<b><u>WALL TILING</u></b>				
<b><u>200 x 200 x 5mm White glazed ceramic tiles fixed with an approved adhesive to plaster (plaster elsewhere)</u></b>				
On walls in isolated panels, splashbacks, etc.	m²	14		
J 14				
<b><u>500 x 500mm Ceramic tiles</u></b>				
On floors	m²	216		
A 34 B 12 C 24				
F 66 J 12 K 66				
M 2				
Carried To Section Summary			R	
Section No. 4				
Bill No. 14				
Tiling				

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				Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>							
<b><u>BUILDING WORKS</u></b>							
<b><u>BILL NO. 15</u></b>							
<b><u>PLUMBING AND DRAINAGE</u></b>							
<b><u>Key:</u></b>				<b><u>Location Description:</u></b>			
Un/A				Unallocated			
A				Administrative Block			
B				1 Class Grade R			
C				2 Class Grade R			
D				4 Classroom			
E				Multipurpose + HOD			
F				3 Class+Ablution A			
G				Science Laboratory			
H				3 Class+HOD			
J				Dining/Nutrition			
K				3 Class+Ablution B			
L				Media Centre			
M				Guard House			
N				Change Room			
I				General Item			
<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>							
PREAMBLES							
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.							
SUPPLEMENTARY PREAMBLES							
<b><u>RAINWATER DISPOSAL</u></b>							
<b><u>0,6mm Galvanised sheet iron</u></b>							
1	100mm Half round eaves gutters (G07)			m	613		
	A	63	B 25	C	51		
	D	68	E 36	F	68		
	G	46	H 58	J	59		
	K	68	L 51	M	3		
	N	17					
2	75mm Diameter rainwater pipes			m	148		
	A	4	B 11	C	11		
	D	11	E 11	F	11		
	G	22	H 11	J	11		
	K	11	L 25	M	3		
	N	6					
Carried to Collection						R	
Section No. 4							
Bill No. 15							
Plumbing And Drainage							

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				Unit	Quantity	Rate	Amount
3	Extra over gutter for stopped end			No	47		
	A 4 B 4 C 4						
	D 4 E 4 F 4						
	G 4 H 4 J 4						
	K 4 L 4 M 1						
	N 2						
4	Extra over gutter for angle			No	47		
	A 4 B 4 C 4						
	D 4 E 4 F 4						
	G 4 H 4 J 4						
	K 4 L 4 M 1						
	N 2						
5	Extra over rainwater pipe for bend			No	47		
	A 4 B 4 C 4						
	D 4 E 4 F 4						
	G 4 H 4 J 4						
	K 4 L 4 M 1						
	N 2						
6	Extra over rainwater pipe for shoe			No	47		
	A 4 B 4 C 4						
	D 4 E 4 F 4						
	G 4 H 4 J 4						
	K 4 L 4 M 1						
	N 2						
<b><u>SANITARY FITTINGS</u></b>							
<b><u>"Atlas Plastics" or similar approved</u></b>							
7	urinal (code: 507AP) fixed to wall with and including matching brackets complete			No	1		
	K 1						
8	wash hand basin with splashback (code: 383AP) polyethylene wash hand basin size 570 X 395mm (colour: granite) fixed to wall with and including cast iron brackets			No	35		
	A 5 B 2 C 6						
	F 9 J 3 K 9						
	M 1						
9	Low level floor mounted WC pedestal (code: 222AP) complete with flap and incorporated seat			No	32		
	A 5 B 3 C 6						
	F 7 J 3 K 7						
	M 1						
<b><u>As per Architects specification</u></b>							
10	900 x 500mm Stainless steel single end bowl inset sink with one 343 x 410 x 166mm deep bowl (1990003) to include plumbing lit and 90mm waste fitting			No	4		
	A 2 C 2						
Carried to Collection							
Section No. 4							
Bill No. 15							
Plumbing And Drainage							

		Unit	Quantity	Rate	Amount
11	1200 x 500mm Stainless steel double end bowl inset sink with two 343 x 410 x 149mm deep bowls (1990007) to include plumbing lit and 90mm waste fitting J 1 <b><u>WASTE UNIONS ETC</u></b> <b><u>As per Architects specification</u></b>	No	1		
12	Waterless urinal fitting and waste (code: 496AP) A 1 F 1 K 1 <b><u>"Cobra Watertech" or similar approved</u></b>	No	3		
13	32mm Basin waste union (code: 303) including plug and chain as Cobra Watertech A 5 B 2 C 6 J 2 <b><u>TRAPS ETC</u></b> <b><u>"Marley" or similar approved</u></b>	No	15		
14	50mm PVC traps (code: ETPA10). Un/A 23 <b><u>TAPS, VALVES, ETC</u></b> <b><u>"Cobra Watertech" or similar approved</u></b>	No	23		
15	Carina sink pillar tap (COB-115CA) with chrome-plated swivel outlet tap (COB-S-044) A 3 B 1 C 2 E 1	No	7		
16	15mm Pillar taps (code: 111-15) fitted with restriction washer, one tap hole stopper A 3 B 3 C 6 E 2 J 3 <b><u>SANITARY PLUMBING</u></b> <b><u>Class 34 uPVC pipes</u></b>	No	17		
17	50mm Pipes I 22 <b><u>Extra over uPVC pipes for</u></b>	m	22		
18	50mm Access bend I 34	No	34		
19	50mm Access junction I 38	No	38		
20	50mm Bend I 75	No	75		
21	50mm Junction I 34	No	34		
Carried to Collection				R	
Section No. 4					
Bill No. 15					
Plumbing And Drainage					

		Unit	Quantity	Rate	Amount
22	Testing waste pipe system. I 1	Item			
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class II copper pipes laid in and including trenches</u></b>				
23	15mm Pipes I 32	m	32		
24	35mm Pipes laid in and including trenches I 91	m	91		
	<b><u>Extra over class II copper pipes for solvent welded fittings</u></b>				
25	15mm fittings I 144	No	144		
26	22mm fittings I 46	No	46		
27	42mm Reducer I 14	No	14		
28	35mm Elbow I 126	No	126		
29	35mm Tee I 28	No	28		
30	2,500 litre Low profile water tank with and including 4mm galvanised wire looped double to top of tank and anchored to top of slab with Y10 rod cast into slab at all four corners, including 15mm standard garden hose to isolate wire and prevent damage to tank or other approved holding down material secured around tank and to concrete pedestal I 14	No	14		
31	3mm Thick galvanised plate with and including 23mm hole to be bolted onto edge of concrete slab with 2 x 8mm raw bolts I 14	No	14		
32	20mm "Cobra" 541 tank locking tap fitted to a 22mm extension pipe with barrel nipple and galvanised socket I 14	No	14		
	<b><u>TESTING</u></b>				
33	Testing water pipe system. I 1	Item			
Carried to Collection				R	
Section No. 4					
Bill No. 15					
Plumbing And Drainage					

**BILL NO. 15**  
**PLUMBING AND DRAINAGE**  
**COLLECTION**

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				Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>							
<b><u>BUILDING WORKS</u></b>							
<b><u>BILL NO. 16</u></b>							
<b><u>GLAZING</u></b>							
<b><u>Key:</u></b>		<b><u>Location Description:</u></b>					
Un/A		Unallocated					
A		Administrative Block					
B		1 Class Grade R					
C		2 Class Grade R					
D		4 Classroom					
E		Multipurpose + HOD					
F		3 Class+Ablution A					
G		Science Laboratory					
H		3 Class+HOD					
J		Dining/Nutrition					
K		3 Class+Ablution B					
L		Media Centre					
M		Guard House					
N		Change Room					
I		General Item					
 <b><u>GLAZING</u></b>							
PREAMBLES							
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.							
<b><u>4mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges fixed with double sided adhesive tape</u></b>							
1	Mirror 450 x 600mm high			No	23		
A	5	B	2	C	4		
J	3	K	8	M	1		
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Bill No. 16							
Glazing							

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b>				
<b><u>BUILDING WORKS</u></b>				
<b><u>BILL NO. 17</u></b>				
<b><u>PAINTWORK</u></b>				
<b><u>Key:</u></b>	<b><u>Location Description:</u></b>			
Un/A	Unallocated			
A	Administrative Block			
B	1 Class Grade R			
C	2 Class Grade R			
D	4 Classroom			
E	Multipurpose + HOD			
F	3 Class+Ablution A			
G	Science Laboratory			
H	3 Class+HOD			
J	Dining/Nutrition			
K	3 Class+Ablution B			
L	Media Centre			
M	Guard House			
N	Change Room			
I	General Item			
 <b><u>PAINTWORK</u></b>				
PREAMBLES				
The contractor is referred to the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
SUPPLEMENTARY PREAMBLES				
DESCRIPTIONS				
Descriptions of paintwork shall be deemed to include for all cutting in				
PREPARATORY WORK TO EXISTING WORK				
Previously painted plastered surfaces Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
Previously painted metal surfaces Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal				
Previously painted wood surfaces Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
PAINT SPECIFICATIONS				
Carried to Collection			R	
Section No. 4				
Bill No. 17				
Paintwork				

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		Unit	Quantity	Rate	Amount
All painting shall be done in accordance with "Plascon-Evans" specifications					
<b><u>PAINTWORK, ETC TO NEW WORK ON</u></b>					
<b><u>FLOATED PLASTER SURFACES WITH</u></b>					
<b><u>Prepare newly plastered surfaces to receive paint</u></b>					
<b><u>One coat alkali resistant plaster primer and two coats modified acrylic fine textured emulsion paint on</u></b>					
1	Internal walls	m <sup>2</sup>	2 034		
	A 205 B 80 C 397				
	D 183 E 78 F 270				
	G 74 H 187 J 173				
	K 270 L 74 M 13				
	N 30				
<b><u>One coat alkali resistant plaster primer, one coat universal undercoat and two coats eggshell enamel paint on</u></b>					
2	External walls	m <sup>2</sup>	861		
	A 78 B 40 C 85				
	D 83 E 51 F 117				
	G 61 H 73 J 74				
	K 117 L 61 M 7				
	N 14				
<b><u>PLASTER BOARD SURFACES WITH</u></b>					
<b><u>One coat alkali resistant plaster primer and two coats PVA acrylic emulsion paint on</u></b>					
3	Ceilings	m <sup>2</sup>	2 507		
	A 312 B 95 C 223				
	D 243 E 156 F 249				
	G 213 H 196 J 301				
	K 249 L 203 M 8				
	N 59				
4	Cornices	m	1 758		
	A 256 B 70 C 186				
	D 154 E 97 F 350				
	G 92 J 216 K 187				
	L 92 M 14 N 44				
<b><u>FIBRE-CEMENT SURFACES WITH</u></b>					
<b><u>Two coats pure acrylic paint on</u></b>					
5	Fascias and barge boards	m	1 290		
	A 165 B 58 C 97				
	D 245 E 74 F 118				
	G 88 H 111 J 108				
	K 118 L 88 M 3				
	N 17				
Carried to Collection				R	
Section No. 4					
Bill No. 17					
Paintwork					

		Unit	Quantity	Rate	Amount
6	Extra over paintwork in other colours for paintwork in colours which have a value of 7 or less on the Munsell system I 183 <b><u>METAL SURFACES WITH</u></b> <b><u>Spot priming defects in pre-primed surfaces with zinc phosphate metal primer, one coat universal undercoat and two coats super universal enamel paint on steel</u></b>	m <sup>2</sup>	183		
7	Door frames A 97 B 52 C 82 D 20 E 26 F 61 G 20 H 26 J 61 K 5 L 20 M 10 N 10	m	490		
8	Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area) A 7 B 2 C 4 D 7 E 9 F 9 G 4 H 7 J 7 K 9 L 4 M 2 N 4	m <sup>2</sup>	75		
9	Eaves gutters not exceeding 300mm girth A 63 B 25 C 51 D 66 E 36 F 68 G 46 H 58 J 59 K 68 L 46 M 3 N 17 <b><u>WOOD SURFACES WITH</u></b> <b><u>One coat oil wood primer, one coat universal undercoat and two coats super universal matt varnish paint on</u></b>	m	606		
10	Internal Doors A 64 B 26 C 53 E 11 F 26 G 4 H 4 J 38 K 26 L 8 M 4 N 4 <b><u>One coat oil wood primer, one coat universal undercoat and two coats super universal gloss enamel paint on</u></b>	m <sup>2</sup>	268		
11	External Doors A 7 B 4 C 8 D 15 E 8 F 19 G 4 H 15 J 7 K 19 L 8 M 2 N 4	m <sup>2</sup>	120		
Carried to Collection				R	
Section No. 4 Bill No. 17 Paintwork					



**BILL NO. 17**  
**PAINTWORK**  
**COLLECTION**

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<b><u>SECTION SUMMARY</u></b>			
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2	CONCRETE, FORMWORK AND REINFORCEMENT	37	
3	PRECAST CONCRETE	38	
4	MASONRY	43	
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**SECTION NO. 5**  
**ELECTRICAL WORKS**



	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>				
<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>Sundry Work</u></b>				
<b><u>SUNDRIES &amp; PROVISIONAL ITEMS:</u></b>				
ALL Provisional Sums are to cover supply and installation of materials and equipment by firms of specialist to be selected by				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
<b><u>INFRA-RED SCANNING:</u></b>				
1	Conduct infra-red scanning of the site at practical completion stage as specified.	Lump Sum		
2	Conduct infra-red scanning of the site 3 months after hand-over as specified.	Lump Sum		
<b><u>LOAD RECORDING:</u></b>				
3	Conduct 1 week load recording of the site 3 months after hand-over as specified.	Lump Sum		
<b><u>TESTING AND COMMISSIONING:</u></b>				
4	Test and commission the entire installation prior to practical completion as per SANS 10142-1 (latest edition) and Specification.	Lump Sum		
5	Test, Commission and supply Certificate of compliance per distribution board.	No	18	
<b><u>PROVISIONAL SUMS:</u></b>				
6	Design and install earthing and lightning protection system as per SANS (performed by an SABS approved Contractor).	Lump Sum		
7	Allow profit and attendance to above	%	0.05	
Carried to Collection			R	
Section No. 5				
Bill No. 1				
Sundry Work				

		Unit	Quantity	Rate	Amount
8	Survey of site for existing medium and low voltage cables and Telkom and data routes.	Lump Sum			
9	Allow profit and attendance to above.	%	0.05		
10	Money Provisioning fo 120A, 3-phase connection.	Lump Sum			
11	Allow profit and attendance to above	%	0.05		
12	Money Provisioning for relocation of existing electrical supply point to new decanting site.	Lump Sum			
13	Allow profit and attendance to above..	%	0.05		
14	Money Provisioning for relocation of existing Telkom Data Service to new decanting site.	Lump Sum			
15	Allow profit and attendance to above	%	0.05		
Carried to Collection					
Section No. 5					
Bill No. 1					
Sundry Work					
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**BILL NO. 1**  
**Sundry Work**  
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		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>					
<b><u>ELECTRICAL WORKS</u></b>					
<b><u>BILL NO. 2</u></b>					
<b><u>LV DBS</u></b>					
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.					
<b><u>LV DISTRIBUTION BOARDS:</u></b>					
<b><u>The manufacture, supply, installation, testing and commissioning of complete distribution boards, including equipment as specified and detailed in the project specification and drawings</u></b>					
<b><u>DB-MAIN LV PANEL/N/E:</u></b>					
1	a) Supply	No	1		
2	b) Install	No	1		
<b><u>DB-BA/N/E/U:</u></b>					
3	a) Supply	No	1		
4	b) Install	No	1		
<b><u>DB-BB/E:</u></b>					
5	a) Supply	No	1		
6	b) Install	No	1		
<b><u>DB-BC/E:</u></b>					
7	a) Supply	No	1		
8	b) Install	No	1		
<b><u>DB-BD/E:</u></b>					
9	a) Supply	No	1		
10	b) Install	No	1		
<b><u>DB-BE/E:</u></b>					
11	a) Supply	No	1		
12	b) Install	No	1		
<b><u>DB-BF/E:</u></b>					
13	a) Supply	No	1		
14	b) Install	No	1		
Carried to Collection				R	
Section No. 5					
Bill No. 2					
Lv Dbs					

		Unit	Quantity	Rate	Amount
	<b><u>DB-BG/E:</u></b>				
15	a) Supply	No	1		
16	b) Install	No	1		
	<b><u>DB-BH/E:</u></b>				
17	a) Supply	No	1		
18	b) Install	No	1		
	<b><u>DB-BJ/E:</u></b>				
19	a) Supply	No	1		
20	b) Install	No	1		
	<b><u>DB-BK/E:</u></b>				
21	a) Supply	No	1		
22	b) Install	No	1		
	<b><u>DB-BLN/E/U:</u></b>				
23	a) Supply	No	1		
24	b) Install	No	1		
	<b><u>DB-BME:</u></b>				
25	a) Supply	No	1		
26	b) Install	No	1		
	<b><u>DB-PUMPH/E:</u></b>				
27	a) supply	No	1		
28	b) Install	No	1		
	<b><u>KIOSKS</u></b>				
	<b><u>Supply new free standing weatherproof 3CR12 electrical Kiosk complete with switch gear equipment as specified.(Refer to specific Drawings ). To be mounted on a suitable concrete plinth.</u></b>				
	<b><u>KIOSK-K1:</u></b>				
29	a) Supply	No	1		
30	b) Install	No	1		
	<b><u>KIOSK-K2:</u></b>				
31	a) Supply	No	1		
32	b) Install	No	1		
	Carried to Collection			R	
	Section No. 5				
	Bill No. 2				
	Lv Dbs				

		Unit	Quantity	Rate	Amount
	<b><u>KIOSK-K3:</u></b>				
33	a) Supply	No	1		
34	b) Install	No	1		
	<b><u>KIOSK-K4:</u></b>				
35	a) Supply	No	1		
36	b) Install	No	1		
Carried to Collection				R	
Section No. 5					
Bill No. 2					
Lv Dbs					

**BILL NO. 2**  
**LV DBS**  
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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>				
<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 3</u></b>				
<b><u>LV CABLING</u></b>				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
LV BUSBAR				
Resin cast busbar (3 x L, N, E) complete with suspension and support mechanisms and all other accessories.:				
NIL				
<b><u>LV CABLE</u></b>				
<b><u>50mm<sup>2</sup> x 4c PVC/PVC/SWA-ECC/PVC</u></b>				
1 a) Supply	m	115		
2 b) Install	m	115		
<b><u>35mm<sup>2</sup> x 4c PVC/PVC/SWA-ECC/PVC</u></b>				
3 a) Supply	m	115		
4 b) Install	m	115		
<b><u>25mm<sup>2</sup> x 4c PVC/PVC/SWA-ECC/PVC</u></b>				
5 a) Supply	m	379		
6 b) Install	m	379		
<b><u>16mm<sup>2</sup> x 4c PVC/PVC/SWA-ECC/PVC</u></b>				
7 a) Supply	m	266		
8 b) Install	m	266		
<b><u>16mm<sup>2</sup> x 2c PVC/PVC/SWA-ECC/PVC</u></b>				
9 a) Supply	m	890		
10 b) Install	m	890		
<b><u>16mm<sup>2</sup> SNE AIRDAC cable</u></b>				
11 a) Supply	m	120		
12 b) Install	m	120		
<b><u>10mm<sup>2</sup> x 2c PVC/PVC/SWA-ECC/PVC</u></b>				
13 a) Supply	m	1 326		
Carried to Collection			R	
Section No. 5				
Bill No. 3				
Lv Cabling				



		Unit	Quantity	Rate	Amount
14	b) Install <b><u>6mm<sup>2</sup> x 2c PVC/PVC/SWA-ECC/PVC</u></b>	m	772		
15	a) Supply	m	289		
16	b) Install <b><u>2,5mm<sup>2</sup> x 12c PVC/PVC/SWA-ECC/PVC</u></b>	m	289		
17	a) Supply	m	684		
18	b) Install <b><u>CABLE TERMINATIONS</u></b> <b><u>Supply and install low voltage cable termination kits complete with all accessories to terminate the listed cables. Cable terminations shall comply with NRS 053.</u></b> <b><u>600/1000V PVC insulated, PVC bedded, steel wire armoured, PVC sheathed copper cables to SANS 1507-3 installed on cable tray, cable ladder, cable rack, ground, sleeves and ducts including all fixings and accessories as specified for the stated cross sectional areas:</u></b> <b><u>50mm<sup>2</sup> x 4c PVC/PVC/SWA-ECC/PVC</u></b>	m	684		
19	a) Supply	No	6		
20	b) Install <b><u>35mm<sup>2</sup> x 4c PVC/PVC/SWA-ECC/PVC</u></b>	No	6		
21	a) Supply	No	2		
22	b) Install <b><u>25mm<sup>2</sup> x 4c PVC/PVC/SWA-ECC/PVC</u></b>	No	2		
23	a) Supply	No	5		
24	b) Install <b><u>16mm<sup>2</sup> x 2c PVC/PVC/SWA-ECC/PVC</u></b>	No	5		
25	a) Supply	No	7		
26	b) Install <b><u>10mm<sup>2</sup> x 2c PVC/PVC/SWA-ECC/PVC</u></b>	No	7		
27	a) Supply	No	43		
28	b) Install	No	43		
Carried to Collection				R	
Section No. 5					
Bill No. 3					
Lv Cabling					

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**BILL NO. 3**  
**LV CABLING**  
**COLLECTION**

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>				
<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 4</u></b>				
<b><u>EXCAVATION</u></b>				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
All prices below shall include the excavation of trenches and holes, separating of stones, ground and rock, leveling of trench bed, refill, compacting and preparation of all surfaces to their original finish.				
<b><u>EXCAVATIONS</u></b>				
<b><u>Trenching shall be calculated using the formula below: Trenching shall be calculated using the formula: (0.8m deep * 0.6m wide * length of trench).</u></b>				
1 Excavate in soft ground	m <sup>3</sup>	340		
2 Excavate in soft rock	m <sup>3</sup>	49		
3 Excavate in hard rock	m <sup>3</sup>	26		
<b><u>Provide sand or stone-free ground complete with</u></b>				
4 handling cost	m <sup>3</sup>	122		
5 Remove all waste material complete with handling cost	m <sup>3</sup>	24		
6 Compaction of all electrical and telecoms sleeve trenches under hardended surfaces to 95% MOD AASHTO.	m <sup>3</sup>	1		
<b><u>CABLE SLEEVE PIPES</u></b>				
<b><u>Supply and install white PVC cable sleeves including joints and all bends in ground, concrete or surface mounted.</u></b>				
<b><u>110mm diameter</u></b>				
7 a) Supply	m	132		
8 b) Install	m	132		
<b><u>50mm diameter</u></b>				
9 a) Supply	m	880		
10 b) Install	m	880		
Carried to Collection			R	
Section No. 5				
Bill No. 4				
Excavation				

		Unit	Quantity	Rate	Amount
<b><u>CABLE ROUTE MARKERS</u></b>					
<b><u>Concrete cable marker complete with appropriately secured inscription plate with inscription as indicated on the Drawings. Rate to include for fitting of laser cut stainless steel inscription plate, inscription and complete burial of marker.</u></b>					
11	a) Supply	No	44		
12	b) Install	No	44		
<b><u>Electrical manhole 600x600x600mm double brick manhole suitable for 4x160mm dia sleeves complete with cast iron cover and appropriately secured stainless steel inscription plate stating "400/231V CABLE".</u></b>					
13	a) Supply	No	1		
14	b) Install	No	1		
<b><u>Telecomms manhole, 600x600mmx600mm internal dimensioned double brick manhole suitable for 2x110mm dia sleeves on each wall. Complete with cast iron cover and appropriately secured stainless steel inscription plate stating "TELECOMMS".</u></b>					
15	a) Supply	No	1		
16	b) Install	No	1		
Carried to Collection					R
Section No. 5					
Bill No. 4					
Excavation					

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**BILL NO. 4**  
**EXCAVATION**  
**COLLECTION**

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Section No. 5  
Bill No. 4  
Excavation

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>				
<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 5</u></b>				
<b><u>LIGHTING</u></b>				
<b><u>LIGHTING</u></b>				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
<b><u>CONDUIT AND ACCESSORIES</u></b>				
<b><u>SABS approved conduit fixed to concrete deck steelwork, chased or built into brickwork and on the surface. Rate to allow for all saddles and screws, adaptors, couplings, drawboxes, fixings, etc for a complete installation. Joints in PVC/ hot dip galvanized conduit to be appropriately welded with a suitable bonding adhesive.</u></b>				
<b><u>20mm diameter PVC Conduit:</u></b>				
1 a) Supply	m	4 475		
2 b) Install in concrete	m	2 462		
3 c) Install in brickwork	m	896		
4 d) Install in ground/roof space	m	896		
5 e) Install against steel trusses/refrigeration panel	m	225		
<b><u>20mm diameter hot dip galvanized Conduit:</u></b>				
6 a) Supply	m	382		
7 b) Install in concrete	m	211		
8 c) Install in brickwork	m	77		
9 d) Install in ground/roof space	m	77		
10 e) Install against steel trusses/refrigeration panel	m	20		
11 20mm Bosal Bend solid extra	No	9		
Carried to Collection			R	
Section No. 5				
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Lighting				

		Unit	Quantity	Rate	Amount
<b><u>OUTLET BOXES</u></b>					
<b><u>Outlet boxes installed in concrete slabs, in brickwork and on the surface. Rate to allow for all adaptors, fixings, etc for a complete installation.</u></b>					
<b><u>1, 2, 3 or 4way, 65mm diameter round PVC box with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>					
12	a) Supply	No	1 125		
13	b) Install	No	1 125		
<b><u>1, 2, 3 or 4way, 65mm diameter round hot dip galvanized box with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>					
14	a) Supply	No	192		
15	b) Install	No	192		
<b><u>100 x 100mm and 100 x 50mm Flush PVC or Surface pressed steel boxes and steel covers:</u></b>					
16	a) Supply	No	193		
17	b) Install	No	193		
<b><u>PVC CONDUCTORS</u></b>					
<b><u>The supply and installation of groups on single conductors within conduit. PVC insulated, stranded copper conductors to SANS 1411-1, SANS 1411-2 and SANS 1574, with the following cross sectional areas.</u></b>					
<b><u>2.5mm<sup>2</sup> (3 x 2.5mm<sup>2</sup> grouped):</u></b>					
18	a) Supply	m	6 251		
19	b) Install	m	6 251		
<b><u>DRAW WIRES</u></b>					
<b><u>The supply and installation in conduit of galvanized steel draw wires.</u></b>					
<b><u>1.5mm<sup>2</sup> galvanized steel draw wire (not insulated):</u></b>					
20	a) Supply	m	251		
21	b) Install	m	251		
Carried to Collection				R	
Section No. 5					
Bill No. 5					
Lighting					



		Unit	Quantity	Rate	Amount
<b><u>LIGHT POINTS</u></b>					
<b><u>Light outlet for light fittings complete with 5A single unswitched socket outlet and 65mm draw box:</u></b>					
<b><u>NOTE: Light fitting measured elsewhere.</u></b>					
22	a) Supply	No	819		
23	b) Install	No	819		
<b><u>LIGHT SWITCHING</u></b>					
<b><u>Crabtree Classic, 16A 1-way, 1-lever light switch complete with RED toggle switch, WHITE PVC cover and draw box:</u></b>					
24	a) Supply	No	83		
25	b) Install	No	83		
<b><u>Crabtree Classic, 16A 2-way, 1-lever light switch complete with RED toggle switch, WHITE PVC cover and draw box:</u></b>					
26	a) Supply	No	33		
27	b) Install	No	33		
<b><u>Crabtree Classic, 16A intermediate, 1-lever light switch complete with RED toggle switch, with temper proof, WHITE PVC cover and draw box:</u></b>					
28	a) Supply	No	4		
29	b) Install	No	4		
<b><u>Schneider Electric, 16A Indoor occupancy sensor (IR and US) light switch with 5 Year guarantee complete with surrounds and draw box:</u></b>					
30	a) Supply	No	2		
31	b) Install	No	2		
				<b>R</b>	
Carried to Collection					
Section No. 5 Bill No. 5 Lighting					

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**BILL NO. 5**  
**LIGHTING**  
**COLLECTION**

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Section No. 5  
Bill No. 5  
Lighting

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>				
<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 6</u></b>				
<b><u>LUMINARIES</u></b>				
<b><u>LUMINAIRES</u></b>				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
NOTE: The tenderer must familiarise themselves with all NOTES within the Bill of Quantities and the detail light fitting schedule as non-compliance will be for the Tenderer's cost.				
<b><u>LUMINAIRES</u></b>				
Supply, delivery to site and guarantee of light fittings as specified, complete with lamps, control gear, all LED drivers and accessories where necessary as part of the fitting supply and delivery rate. Refer to the Project Specification for a full description of the light fittings, specifications and requirements. NOTE 1) : All prices to be fixed and firm for the entire project period up to final completion and final hand-over. The rate tendered shall not be subject to any escalation.				
NOTE 2) : Quantities of all light fittings are to be confirmed in writing by the Engineer prior to procurement.				
NOTE 3) : Light fitting costs to allow trim / light fitting colour selection in accordance with final Architect requirement and must be confirmed prior to procurement of light fittings. Such approval to be obtained in writing from the Architect / Engineer / Client.				
<b><u>L0-1B</u></b>				
1 a) Supply	No	22		
2 b) Install	No	22		
<b><u>L0-1B/E:</u></b>				
3 a) Supply	No	4		
4 b) Install	No	4		
<b><u>L0-3A/E:</u></b>				
5 a) Supply	No	44		
6 b) Install	No	44		
Carried to Collection			R	
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Bill No. 6				
Luminaries				



**BILL NO. 6**  
**LUMINARIES**  
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<b><u>SECTION NO. 5</u></b>				
<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 7</u></b>				
<b><u>SMALL POWER</u></b>				
<b><u>SMALL POWER</u></b>				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
<b><u>SOCKET OUTLETS</u></b>				
<b><u>Crabtree Classic 16A single recessed switched socket outlet, with WHITE toggle switch, round earth pin, complete with WHITE surrounds, WHITE cover and draw box.</u></b>				
1 a) Supply	No	14		
2 b) Install	No	14		
<b><u>Crabtree Classic 16A double recessed switched socket outlet with 1xRSA socket, WHITE toggle switches, round earth pin, complete with WHITE surrounds, WHITE cover and draw box.</u></b>				
3 a) Supply	No	105		
4 b) Install	No	105		
<b><u>Crabtree Classic 16A single recessed dedicated socket outlet with RED toggle switch, flat earth pin, complete with RED surrounds, WHITE cover and draw box.</u></b>				
5 a) Supply	No	18		
6 b) Install	No	18		
<b><u>Crabtree Classic 16A single switched socket outlet for power skirting with WHITE toggle switch, round earth pin, complete with WHITE surrounds and WHITE cover.</u></b>				
7 a) Supply	No	26		
8 b) Install	No	26		
<b><u>Data and Telephone Outlet for power skirting.</u></b>				
9 a) Supply	No	43		
10 b) Install	No	43		
Carried to Collection			R	
Section No. 5				
Bill No. 7				
Small Power				

		Unit	Quantity	Rate	Amount
	<b><u>Legrand IP65 16A single switched socket outlet complete with WHITE toggle switch, round earth pin, complete with WHITE pin surrounds, IP65 draw box.</u></b>				
11	a) Supply	No	2		
12	b) Install	No	2		
	<b><u>Crabtree Classic 16A single socket outlet EMERGENCY (Generator Power Supply) for power skirting dedicated socket outlet with RED toggle switch, flat earth pin, complete with RED pin surrounds, WHITE cover.</u></b>				
13	a) Supply	No	14		
14	b) Install	No	14		
	<b><u>Crabtree Classic 16A single DEDICATED EMERGENCY (Non - Medical Unprotected Power Supply) for power skirting socket outlet with RED toggle switch, flat earth pin, complete with RED pin surrounds, WHITE cover.</u></b>				
15	a) Supply	No	14		
16	b) Install	No	14		
	<b><u>SWITCH DISCONNECTORS</u></b>				
	<b><u>Supply and installation of isolators with plastic coverplates with boxes complete. Products as specified or similar approved in quality and performance by the Engineer in writing prior to tender closing.</u></b>				
	<b><u>HANDDRYERS: Crabtree Classic 20A double pole switch disconnecter with neon indicator for hand dryers complete with white cover and surface/flush draw box.</u></b>				
17	a) Supply	No	5		
18	b) Install	No	5		
	<b><u>GEYSERS: Waco Industrial 20A double pole lockable switch disconnecter complete with IP65 surrounds.</u></b>				
19	a) Supply	No	3		
20	b) Install	No	3		
	<b><u>EXTRACT FANS: Crabtree Classic 20A double pole switch disconnecter complete with white cover and surface/flush draw box.</u></b>				
21	a) Supply	No	13		
	Carried to Collection			R	
	Section No. 5				
	Bill No. 7				
	Small Power				

		Unit	Quantity	Rate	Amount
22	b) Install <b><u>HVAC: Crabtree Classic 32A double pole switch disconnecter complete with white cover and surface/flush draw box. IP65 surrounds.</u></b>	No	13		
23	a) Supply	No	13		
24	b) Install	No	13		
	<b><u>CONDUIT AND ACCESSORIES</u></b>				
	<b><u>SABS approved conduit fixed to concrete deck steelwork, chased or built into brickwork and on the surface. Rate to allow for all saddles and screws, adaptors, couplings, drawboxes, fixings, etc for a complete installation. Joints in PVC / hot dip galvanized conduit to be appropriately welded with a suitable bonding adhesive.</u></b>				
	<b><u>20mm diameter PVC conduit</u></b>				
25	a) Supply	m	3 402		
26	b) Install in concrete	No	2 042		
27	c) Install in brickwork	No	681		
28	d) Install in ground/roof space	No	681		
	<b><u>25mm diameter PVC conduit</u></b>				
29	a) Supply	No	913		
30	b) Install in concrete	No	548		
31	c) Install in brickwork	No	183		
32	d) Install in ground/roof space	No	183		
	<b><u>25mm diameter PVC coated Sprague tubing</u></b>				
33	a) Supply	m	9		
34	b) Install	m	9		
	<b><u>20mm diameter hot dip galvanised conduit</u></b>				
35	a) Supply	m	552		
36	b) Install in concrete	m	332		
37	c) Install in brickwork	m	112		
38	d) Install in ground/roof space	m	112		
	Carried to Collection			R	
	Section No. 5				
	Bill No. 7				
	Small Power				



		Unit	Quantity	Rate	Amount
	<b><u>25mm diameter hot dip galvanised conduit</u></b>				
39	a) Supply	m	29		
40	b) Install in concrete	No	9		
41	c) Install in brickwork	No	4		
42	d) Install in ground/roof space	No	9		
	<b><u>OUTLET BOXES</u></b>				
	<b><u>Outlet boxes installed in concrete slabs, in brickwork and on the surface. Rate to allow for all adaptors, fixings, etc for a complete installation.</u></b>				
	<b><u>1, 2, 3 or 4way, 65mm diameter round PVC box for 20mm conduit with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
43	a) Supply	No	851		
44	b) Install	No	851		
	<b><u>1, 2, 3 or 4way, 65mm diameter round PVC box for 25mm conduit with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
45	a) Supply	No	215		
46	b) Install	No	215		
	<b><u>1, 2, 3 or 4way, 65mm diameter round hot dip galvanized box for 20mm conduit with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
47	a) Supply	No	5		
48	b) Install	No	5		
	<b><u>1, 2, 3 or 4way, 65mm diameter round hot dip galvanized box for 25mm conduit with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
49	a) Supply	No	27		
50	b) Install	No	27		
	Carried to Collection			R	
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	Small Power				

		Unit	Quantity	Rate	Amount
<b><u>COVER PLATES</u></b>					
<b><u>The supply and installation of steel cover plates with white enamel finish, adjustable carrier plate and stainless steel screws.</u></b>					
<b><u>100 x 100mm and 100 x 50mm Flush PVC or Surface pressed steel boxes and steel covers:</u></b>					
51	a) Supply	No	379		
52	b) Install	No	379		
<b><u>Data blank inset on powerskirting or in floor box to match specified powerskirting:</u></b>					
53	a) Supply	No	14		
54	b) Install	No	14		
<b><u>PVC CONDUCTORS</u></b>					
<b><u>The supply and installation of groups on single conductors within conduit. PVC insulated, stranded copper conductors to SANS 1411-1, SANS 1411-2 and SANS 1574, with the following cross sectional areas.</u></b>					
<b><u>2.5mm<sup>2</sup> (3 x 2.5mm<sup>2</sup> grouped):</u></b>					
55	a) Supply	m	10 945		
56	b) Install	m	10 945		
<b><u>4mm<sup>2</sup> (3 x 4mm<sup>2</sup> grouped):</u></b>					
57	a) Supply	m	385		
58	b) Install	m	385		
<b><u>4mm<sup>2</sup> (5 x 4mm<sup>2</sup> grouped):</u></b>					
59	a) Supply	m	1 089		
60	b) Install	m	1 089		
<b><u>6mm<sup>2</sup> (5 x 6mm<sup>2</sup> grouped):</u></b>					
61	a) Supply	m	112		
62	b) Install	m	112		
Carried to Collection				R	
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Small Power					



**BILL NO. 7**  
**SMALL POWER**  
**COLLECTION**

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b>				
<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 8</u></b>				
<b><u>TELECOMMS</u></b>				
<b><u>TELECOMMUNICATION</u></b>				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
<b><u>CONDUIT</u></b>				
<b><u>SABS approved conduit fixed to concrete deck steelwork, chased or built into brickwork and on the surface. Rate to allow for all saddles and screws, adaptors, couplings, drawboxes, fixings, etc for a complete installation. Joints in PVC conduit to be appropriately welded with a suitable bonding adhesive.</u></b>				
<b><u>20mm diameter PVC conduit:</u></b>				
1 a) Supply	m	264		
2 b) Install in concrete	m	160		
3 c) Install in brickwork	m	54		
4 d) Install in ground/roof space	m	54		
<b><u>25mm diameter PVC conduit:</u></b>				
5 a) Supply	m	154		
6 b) Install in concrete	m	94		
7 c) Install in brickwork	m	32		
8 d) Install in ground/roof space	m	32		
<b><u>32mm diameter PVC conduit:</u></b>				
9 a) Supply	m	33		
10 b) Install in concrete	m	20		
11 c) Install in brickwork	m	7		
12 d) Install in ground/roof space	m	7		
13 e) Install against steel trusses/refrigeration panel	m	7		
<b><u>20mm diameter hot dip galvanised conduit</u></b>				
14 a) Supply	m	30		
Carried to Collection			R	
Section No. 5				
Bill No. 8				
Telecomms				

		Unit	Quantity	Rate	Amount
15	b) Install in concrete	No	18		
16	c) Install in brickwork	No	6		
17	d) Install in ground/roof space	No	6		
	<b><u>25mm diameter hot dip galvanised conduit</u></b>				
18	a) Supply	m	30		
19	b) Install in concrete	No	18		
20	c) Install in brickwork	No	6		
21	d) Install in ground/roof space	No	6		
	<b><u>CONDUIT AND ACCESSORIES</u></b>				
	<b><u>Outlet boxes installed in concrete slabs, in brickwork and on the surface. Rate to allow for all adaptors, fixings, etc for a complete installation.</u></b>				
	<b><u>1, 2, 3 or 4way, 65mm diameter round PVC box with coverplates, screws, glands, etc for a complete installation for 20mm diameter conduit. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
22	Supply	No	66		
23	Install	No	66		
	<b><u>1, 2, 3 or 4way, 65mm diameter round PVC box with coverplates, screws, glands, etc for a complete installation for 25mm diameter conduit. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
24	Supply	No	39		
25	Install	No	39		
	<b><u>25mm diameter PVC coated Sprague tubing:</u></b>				
26	a) Supply	m	11		
27	b) Install	m	11		
	<b><u>1, 2, 3 or 4way, 65mm diameter round PVC box for 32mm conduit with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
28	a) Supply	No	9		
29	b) Install	No	9		
	Carried to Collection				R
Section No. 5					
Bill No. 8					
Telecomms					

		Unit	Quantity	Rate	Amount
	<b><u>1, 2, 3 or 4way, 65mm diameter round hot dip galvanized box for 20mm conduit with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
30	a) Supply	No	17		
31	b) Install	No	17		
	<b><u>1, 2, 3 or 4way, 65mm diameter round hot dip galvanized box for 25mm conduit with coverplates, screws, glands, etc for a complete installation. Boxes to be Surface mounted or flush in concrete &amp; brickwork:</u></b>				
32	a) Supply	No	6		
33	b) Install	No	6		
	<b><u>COVER PLATES</u></b>				
	<b><u>The supply and installation of steel cover plates with white enamel finish, adjustable carrier plate and stainless steel screws.</u></b>				
	<b><u>100 x 100mm and 100 x 50mm Flush PVC or Surface pressed steel boxes and steel covers:</u></b>				
34	a) Supply	No	11		
35	b) Install	No	11		
	<b><u>Telephone blank inset on powerskirting or in floor box to match specified powerskirting:</u></b>				
36	a) Supply	No	20		
37	b) Install	No	20		
	<b><u>Data blank inset on powerskirting or in floor box to match specified powerskirting:</u></b>				
38	a) Supply	No	22		
39	b) Install	No	22		
	<b><u>Data outlet mounted in ceiling in surface draw box complete with draw wire:</u></b>				
40	a) Supply	No	22		
41	b) Install	No	22		
	<b><u>ITC DB 450x450 recessed galavised box with white cover</u></b>				
42	a) Supply	No	3		
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
43	b) Install	No	3		
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**BILL NO. 8**  
**TELECOMMS**  
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<b><u>ELECTRICAL WORKS</u></b>				
<b><u>BILL NO. 9</u></b>				
<b><u>CONTAINMENT</u></b>				
<b><u>CONTAINMENT</u></b>				
NOTE: The Project Specification, Drawings and all other parts of this Document to be read in conjunction with the Bills of Quantities to ensure correct pricing.				
<b><u>WIRING CHANNELS</u></b>				
<b><u>Cabstrut P2000 or O-line similar wiring channel including PVC cover and suspension mechanism consisting of a sleeve anchor, 300mm M6 threaded rod, unistrut hanger and hanger bracket every 2m. All bolts, screws, clips and other material necessary for suspension to be included in the tendered rate:</u></b>				
1 a) Supply	m	179		
2 b) Install	m	179		
<b><u>"TEE", for P2000 wiring channel, CABSTRUT or O-line, medium duty, hot dipped galvanized:</u></b>				
3 a) Supply	No	5		
4 b) Install	No	5		
<b><u>"90° Bend", for P2000 wiring channel, CABSTRUT or O-line, medium duty, hot dipped galvanized:</u></b>				
5 a) Supply	No	14		
6 b) Install	No	14		
<b><u>Cabstrut P9000 or O-line similar including PVC cover and suspension mechanism consisting of a sleeve anchor, 300mm M6 threaded rod, unistrut hanger and hanger bracket every 2m. All bolts, screws, clips and other material necessary for suspension to be included in the tendered rate:</u></b>				
7 a) Supply	m	449		
8 b) Install	m	449		
Carried to Collection			R	
Section No. 5				
Bill No. 9				
Containment				

		Unit	Quantity	Rate	Amount
	<b><u>POWER SKIRTING</u></b>				
	<b><u>Cabstrut N8/P801 or O-line similar white galvanised steel, 3 compartment power skirting complete with covers, accessories, end caps and elbows, etc. consisting of:</u></b>				
	<b><u>2 x power duct</u></b>				
	<b><u>1 x telephone/data duct</u></b>				
9	a) Supply	m	36		
10	b) Install	m	36		
	<b><u>POWER POLES</u></b>				
	<b><u>Cabstrut or O-line Power pole 1×complete power pole to house 2×dedicated socket outlet, 2× normal socket outlet &amp; 2 x Telephone and data outlets:</u></b>				
11	a) Supply	No	3		
12	b) Install	No	3		
	<b><u>CABLE BASKET</u></b>				
	<b><u>Supply and install galvanized metal cable wire ways including all fixing material, trapeze hangers, splices, bonding conductors and other accessories required. Prices to include items such as cable ties, nuts, bolts, earthing and bonding, cold galvanising raw cuts, etc.</u></b>				
	<b><u>Cabstrut or O-line 200mm wide (50mm side wall height, 4mm diameter and 100x50mm pitch) medium duty welded wire mesh cable basket including all bolts, screws, clips, P4000 trapeze hanger, threaded rod and other material necessary for fixing:</u></b>				
13	a) Supply	m	186		
14	b) Install	m	186		
	<b><u>"TEE", for 200mm medium duty welded wire mesh cable basket CABSTRUT or O-line, medium duty, hot dipped galvanized:</u></b>				
15	a) Supply	No	6		
16	b) Install	No	6		
	<b><u>"90° Bend", for 200mm medium duty welded wire mesh cable basket, CABSTRUT or O-line, medium duty, hot dipped galvanized:</u></b>				
17	a) Supply	No	10		
	Carried to Collection			R	
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	Containment				

		Unit	Quantity	Rate	Amount
18	b) Install	No	10		
	<b><u>CABLE LADDER</u></b> <b><u>Supply and install galvanized metal cable wire ways including all fixing material, trapeze hangers, splices, bonding conductors and other accessories required. Prices to include items such as cable ties, nuts, bolts, earthing and bonding, cold galvanising raw cuts, etc.</u></b> <b><u>Cabstrut or O-line 200mm wide (50mm rail height, 1,6mm thickness and 375mm rung spacing) medium duty cable ladder including all bolts, screws, clips, P4000 trapeze hanger, threaded rod and other material necessary for fixing:</u></b>				
19	a) Supply	m	13		
20	b) Install	m	13		
	<b><u>"TEE", for 200mm medium duty cable ladder CABSTRUT or O-line, medium duty, hot dipped galvanized:</u></b>				
21	a) Supply	No	6		
22	b) Install	No	6		
	<b><u>"90° Bend", for 200mm medium duty cable ladder, CABSTRUT or O-line, medium duty, hot dipped galvanized:</u></b>				
23	a) Supply	No	10		
24	b) Install	No	10		
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**CONTAINMENT**  
**COLLECTION**

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<b><u>ELECTRICAL WORKS</u></b>			
<b><u>SECTION SUMMARY</u></b>			
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**SECTION NO. 6**  
**MECHANICAL WORKS**

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<b><u>SECTION NO. 6</u></b>				
<b><u>MECHANICAL WORKS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>FIRE PROTECTION</u></b>				
<b><u>Fire Protection Equipment</u></b>				
1 30m Fire Hose Reels	No	11		
2 4.5Kg DCP Fire Extinguishers	No	29		
3 F13 Signage 190mm x 190mm	No	48		
4 F14 Signage 190mm x 190mm	No	46		
5 E3 Signage 190mm x 190mm	No	40		
<b><u>Medium Class Galvanised steel to be primed and painted signal red in accordance with SANS and ISO requirements,</u></b>				
<b><u>installed complete with short lengths, cutting, plain couplings, capillary solder and jointing strictly in accordance with the Manufacturer's instructions, support brackets etc.</u></b>				
6 Dia 32mm	m	65		
7 Dia 25mm	m	200		
<b><u>Extra over Galvanised piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u></b>				
8 dia 100	No	4		
<b><u>Bends:</u></b>				
<b><u>GMS piping in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u></b>				
9 dia 32	No	22		
10 dia 25	No	58		
<b><u>Tees:</u></b>				
<b><u>GMS piping in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u></b>				
11 dia 32-32-32	No	12		
12 dia 25-25-25	No	21		
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		Unit	Quantity	Rate	Amount
	<b><u>Extra over Galvanised piping for capillary fittings in accordance with SANS - 10252 complete with hangers, brackets, soldering , etc.</u></b>				
13	dia 100-100-100	No	10		
	<b><u>Reducers</u></b>				
	<b><u>GMS piping in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u></b>				
14	32 - 25	No	1		
15	100-50	No	6		
	<b><u>FIRE WATER INSTALLATION</u></b>				
	Galvanised Pipe: (Surface Mounted and reticulating in ceiling voids)				
	<b><u>Medium Class Galvanised steel water piping in accordance with SANS 62-1 installed complete with short lengths, cutting, plain couplings, capillary solder and jointing strictly in accordance with the Manufacturer's instructions, support brackets etc.</u></b>				
	<b><u>All coldwater pipes to be installed as per SANS 10252 regulations.</u></b>				
16	dia 100	m	20		
17	dia 50	m	10		
	<b><u>Ball type Isolating Valve complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions and complying to SANS 1056 - 3</u></b>				
18	dia 100	No	5		
	<b><u>Strainers:</u></b>				
	<b><u>Specified Strainer complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions.</u></b>				
19	dia 100	No	2		
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		Unit	Quantity	Rate	Amount
	<b><u>OPERATING AND MAINTENANCE MANUALS</u></b>				
30	The Contractor shall make provision for 4 x copies of O & M Manuals in accordance with the detail in the Standard specification.	No	3		
	<b><u>TRAINING OF CLIENTS STAFF</u></b>				
31	The Contractor shall make provision for 1 full day's training of the Clients Staff, on the operation of the installation.	Lump Sum			
	<b><u>AS-BUILT LAYOUT DRAWINGS</u></b>				
32	The Contractor shall make provision for a detailed set of As Fitted Layout drawings of the entire installation, as the project progresses.	No	3		
	<b><u>COMMISSIONING AND TESTING</u></b>				
33	The Contractor shall make provision to commission and pressure test the installation during construction	Lump Sum			
	<b><u>MAINTENANCE AND GUARANTEE</u></b>				
34	PRESSURE TESTING	Lump Sum			
35	The Contractor shall make provision for 1 x Full years Maintenance and Guarantee of the entire installation. 11 x Standard Maintenance visits and 1 x Major service is required throughout the 12 months.	Lump Sum			
	<b><u>SHOP DRAWINGS</u></b>				
36	Submission of shop drawings	No	1		
37	NON-RETURN VALVE (SIZE TO BE CONFIRMED WITH CIVIL CONTRACTOR - ALLOWED FOR DIAMETER 100 mm)	No	1		
38	FIRE SIGNAGE AS INDICATED IN THE DRAWINGS ISSUED	Lump Sum			
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**BILL NO. 1**  
**FIRE PROTECTION**  
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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 6</u></b> <b><u>MECHANICAL WORKS</u></b> <b><u>BILL NO. 2</u></b> <b><u>HVAC</u></b> <b><u>Supply only of midwall type split units complete with</u></b> <b><u>ADMINISTRATIVE BLOCK</u></b> <b><u>wall mounted controllers wiring installed in conduit</u></b> <b><u>chased in walls</u></b>				
1 AC 1 (TC 2,9kW SC 2.7 kW)	No	7		
<b><u>Piping Installation</u></b> Supply and install copper piping as per suppliers design <b><u>Refrigerant copper piping and approved insulation</u></b> <b><u>similar or equal to Armourflex, to units, etc.,</u></b> <b><u>including all labour, bends and suspending</u></b> <b><u>complete. Rate for piping per meter, insulated and</u></b> <b><u>suspended</u></b>				
2 9.52mm Diameter refrigeration pipe	No	42		
3 15.88mm Diameter refrigeration pipe	No	42		
<b><u>PVC drain piping including running joints, fittings,</u></b> <b><u>clamps and supports and fixing to roof trusses &amp;</u></b> <b><u>trays, .</u></b>				
4 32mm Diameter	m	245		
5 50mm Diameter	m	105		
<b><u>RECORD ROOM EXTRACTION SYSTEM</u></b> <b><u>Stainless Steel as specified in the Standard and</u></b> <b><u>Detailed Specifications as well as shown on the</u></b> <b><u>drawings</u></b>				
6 Diameter 350mm Whirly bird	No	1		
<b><u>Round uninsulated sheetmetal duct</u></b>				
7 Ø400 mm	m	10		
<b><u>90° Degree bend in uninsulated rectangular duct</u></b>				
8 Ø400 mm	No	2		
<b><u>Transformation piece in uninsulated rectangular</u></b> <b><u>duct</u></b>				
9 1200x330 mm to 600x250 mm	No	1		
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		Unit	Quantity	Rate	Amount
	<b><u>Roof mounted fan complete with weather cowl, mounting frame, weather skirt and transformation piece to connecting duct</u></b>				
10	EF01: 720 l/s at 150Pa Static Pressure, motor 0.375 kW	No	1		
	<b><u>Egg crate extract air grille</u></b>				
11	600 x 600 mm	No	1		
12	1.5D Padded Type Matching Sound Attenuator	No	1		
	<b><u>MULTI-PURPOSE CENTRE</u></b>				
	<b><u>Supply only of midwall type split units complete with wall mounted controllers wiring installed in conduit chased in walls</u></b>				
13	AC 1 (TC 2,9kW SC 2.7 kW)	No	3		
	<b><u>Piping Installation</u></b>				
	<b><u>Supply and install copper piping as per suppliers design</u></b>				
	<b><u>Refrigerant copper piping and approved insulation similar or equal to Armourflex, to units, etc., including all labour, bends and suspending complete. Rate for piping per meter, insulated and suspended</u></b>				
14	9.52mm Diameter refrigeration pipe	No	18		
15	15.88mm Diameter refrigeration pipe	No	18		
	<b><u>PVC drain piping including running joints, fittings, clamps and supports and fixing to roof trusses &amp; trays.</u></b>				
16	32mm Diameter	m	105		
17	50mm Diameter	m	45		
	<b><u>KITCHEN EXTRACTION SYSTEM</u></b>				
	<b><u>Stainless Steel Exhaust Canopy complete with lighting, 4 off inertia filters, drip channels and all duct and trunking connections as specified in the Standard and Detailed Specifications as well as shown on the drawings</u></b>				
18	1200mm x 1500mm x 500mm high canopy (Cooking island)	No	1		
	<b><u>Round uninsulated sheetmetal duct</u></b>				
19	Ø400 mm	m	10		
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<b><u>90° Degree bend in uninsulated rectangular duct</u></b>				
20	Ø400 mm	No	2		
	<b><u>Transformation piece in uninsulated rectangular duct</u></b>				
21	1200x330 mm to 600x250 mm	No	1		
	<b><u>Roof mounted fan complete with weather cowl, mounting frame, weather skirt and transformation piece to connecting duct</u></b>				
22	EF01: 720 l/s at 150Pa Static Pressure, motor 0.375 kW	No	1		
	<b><u>Egg crate extract air grille</u></b>				
23	600 x 600 mm	No	2		
24	1.5D Padded Type Matching Sound Attenuator	No	1		
	<b><u>MEDIA CENTRE</u></b>				
	<b><u>Supply only of midwall type split units complete with wall mounted controllers wiring installed in conduit chased in walls</u></b>				
25	AC 1 (TC 2,9kW SC 2.7 kW)	No	2		
	<b><u>Piping Installation</u></b>				
	<b><u>Supply and install copper piping as per suppliers design</u></b>				
	<b><u>Refrigerant copper piping and approved insulation similar or equal to Armourflex, to units, etc., including all labour, bends and suspending complete. Rate for piping per meter, insulated and suspended</u></b>				
26	9.52mm Diameter refrigeration pipe	No	12		
27	15.88mm Diameter refrigeration pipe	No	12		
	<b><u>PVC drain piping including running joints, fittings, clamps and supports and fixing to roof trusses &amp; trays, .</u></b>				
28	32mm Diameter	m	70		
29	50mm Diameter	m	30		
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**SECTION NO. 7**  
**EXTERNAL WORKS**

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b>				
<b><u>EXTERNAL WORKS</u></b>				
<b><u>BILL NO. 1</u></b>				
<b><u>EARTHWORKS</u></b>				
<b><u>EXTERNAL WORKS (Provisional)</u></b>				
<b><u>External Works (Provisional)</u></b>				
PREAMBLES				
For Preambles refer to "Department of Public Works: Specification of materials and methods to be used - PW371".				
CPAP WORK GROUP				
Unless otherwise stated all items in this bill will be Work Group 104.				
<b><u>SITE CLEARANCE ETC</u></b>				
<b><u>Allow for clearing of site of all vegetable matter, rubbish,etc.including small trees having a circumference</u></b>				
<b><u>of less than 200mm measured at a height of 1000mm above ground level, that may be encountered and roughly</u></b>				
<b><u>level site to be built upon and carting away any debris to a site to be found by the contractor.(Labour intensive).</u></b>				
1 Site Clearance	m <sup>2</sup>	37 320		
2 Stripping average 150mm thick layer of top soil and stockpiling on site	m <sup>2</sup>	37 320		
<b><u>BULK EXCAVATION, FILLING, ETC</u></b>				
<b><u>Open face excavation in earth over sloping site:</u></b>				
3 Excavate for platforms.	m <sup>3</sup>	3 200		
<b><u>Extra over bulk excavations in earth for excavation in:</u></b>				
4 Soft rock	m <sup>3</sup>	320		
5 Hard rock	m <sup>3</sup>	160		
<b><u>Keeping excavations free of water:</u></b>				
6 Keeping excavations free of all water other than subterranean water	Item			
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		Unit	Quantity	Rate	Amount
	<b><u>Risk of collapse of excavations:</u></b>				
7	Sides of bulk excavations not exceeding 1,5m deep	m <sup>2</sup>	180		
	<b><u>Extra only over all bulk excavations for loading and carting away:</u></b>				
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	1 600		
	<b><u>Earth filling from the excavations deposited in layers not exceeding 150mm thick(Not compacted)</u></b>				
9	Topsoil from excavations, spread and leveled over site and abutting kerbs, wall etc.	m <sup>3</sup>	800		
	<b><u>Earth filling (G7) supplied by the contractor compacted in layers not exceeding 150mm thick to 93% Mod AASHTO density:</u></b>				
10	Over site to form platforms, banks, etc	m <sup>3</sup>	983		
	<b><u>Compaction of ground surfaces:</u></b>				
11	Stabilize in-situ reduced levels by scarifying to depth of 150mm and compacting to a density of 93% Modified AASHTO maximum density	m <sup>2</sup>	120		
	<b><u>Prescribed density tests on filling:</u></b>				
12	Allow for the execution of all prescribed density tests on filling, etc., as pointed out by the Principal Agent on site	No	10		
	<b><u>Roads &amp; Parking (Provisional)</u></b>				
	<b><u>EXCAVATION, FILLING, ETC.</u></b>				
	<b><u>CPAP WORK GROUP</u></b>				
	Unless otherwise stated all items in this bill will be Work Group 154				
	<b><u>Excavation in earth not exceeding 2m deep:</u></b>				
13	Reduced levels under solid paving.	m <sup>3</sup>	850		
	<b><u>Extra over all excavations for carting away:</u></b>				
14	Surplus material from excavations and/or stock piles on site to a dumping site located within the school boundary to make up levels	m <sup>3</sup>	420		
	<b><u>Compaction of surfaces:</u></b>				
15	Scarify, mix and consolidate top 150mm of subgrade to 95% modified AASHTO density	m <sup>2</sup>	320		
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
	<b><u>Earth filling obtained from the excavations as subgrade filling from prescribed stock piles on site compacted to 90% Mod AASHTO density</u></b>				
16	In subgrade filling under roads and parking interlocking paving.	m <sup>3</sup>	210		
	<b><u>Selected granular G6 filling material supplied and carted onto the site by the Contractor and having a plasticity index of less than 12, deposited in layers not exceeding 125mm thick after compaction and compacted to a density of 93% Modified AASHTO maximum density:</u></b>				
17	In sub-base course filling under roads and parking interlocking paving.	m <sup>3</sup>	250		
	<b><u>Selected granular C4 filling material supplied and carted onto the site by the Contractor and having a plasticity index of less than 12, deposited in layers not exceeding 125mm thick after compaction, compacted to a density of 97% Modified AASHTO maximum density:</u></b>				
18	In base course filling under roads and parking interlocking paving.	m <sup>3</sup>	210		
	<b><u>Prescribed density tests on filling:</u></b>				
19	Allow for the execution of all prescribed density tests on filling, etc., as pointed out by Principal Agent on site	No	12		
	<b><u>Weed killer:</u></b>				
20	Weedmaster Turfmaster' or other approved weed and grass killer applied to ground under precast concrete pavings	m <sup>2</sup>	1 550		
	<b><u>Soil poisoning applied by a registered pest control company and guaranteed against termite infestation for five years</u></b>				
21	Antproofing ground under precast concrete pavings.	m <sup>2</sup>	1 550		
	<b><u>CONCRETE</u></b>				
	<b><u>Unreinforced Concrete</u></b>				
	<b><u>20 MPa/19 mm concrete in:</u></b>				
22	Kerb channeling, etc.	m <sup>3</sup>	8		
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
23	Edge beam size 300 x 450mm high including all necessary excavation, formwork, etc.	m	200		
	<b><u>CONCRETE TESTING</u></b>				
	<b><u>Concrete test cubes:</u></b>				
24	Allow for all necessary concrete test cubes size 150 x 150 x 150mm cast from batches of concrete required for the entire contract.	No	3		
	<b><u>CONCRETE SUNDRIES</u></b>				
	<b><u>Finishing top of concrete smooth with a Class U2 Wood Float Finish:</u></b>				
25	Kerb channel.	m <sup>2</sup>	120		
	<b><u>FORMWORK</u></b>				
	<b><u>Formwork (use and waste) to concrete to:</u></b>				
26	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	75		
27	Ditto but circular on plan to exceeding 1m radius.	m	12		
	<b><u>PRECAST CONCRETE PAVING</u></b>				
	Stock 230 x 115 x 80mm pavers complying with SABS 1058, of the colour stated, uniform in shape and colour, free from cracks, chips, twists and all other defects and equal to samples to be submitted to and approved by the Principal Agent.  Prices are to include for laying in strict accordance with the manufacturers instructions to the pattern stated,  vibrating with a plate compactor to provide properly bedded even top surfaces and for sealing all joints with fine sand thoroughly brushed in, protecting from damage and cleaning down on completion - all to the approval of the Principal Agent.				
	<b><u>Standard grey interlocking roadstone paving on and including 20mm thick consolidated layer of clean river sand including all square cutting and waste:</u></b>				
28	Paving to parking areas, etc. to falls laid in herringbone pattern.	m <sup>2</sup>	988		
29	Fair circular cutting and waste to last.	m	24		
	Carried to Collection			R	
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	Unit	Quantity	Rate	
	<u>Stock 230 x 115 x 60mm pavers complying with SABS 1058, of the colour stated, uniform in shape and colour,</u>			
	<u>free from cracks, chips, twists and all other defects and equal to samples to be submitted to and approved by the Principal Agent.</u>			
	<u>Prices are to include for laying in strict accordance with the manufacturers instructions to the pattern stated,</u>			
	<u>vibrating with a plate compactor to provide properly bedded even top surfaces and for sealing all joints with fine</u>			
	<u>sand thoroughly brushed in, protecting from damage and cleaning down on completion - all to the approval of the Principal Agent.</u>			
	<u>Standard grey interlocking roadstone paving on and including 20mm thick consolidated layer of clean river sand including all square cutting and waste:</u>			
30	Paving to walkways, etc. to falls laid in herringbone pattern.  Margin course and bedding in cement mortar on compacted filling set average 20mm deep into fill	m <sup>2</sup>	331	
31	material including necessary excavation, bedded and jointed in cement mortar and pointed on top.  <u>PRECAST CONCRETE KERBS</u> <u>Precast Concrete Kerbs:</u> <u>SABS Specification 927 Fig. 4, in approximately 1000mm lenghts, bedded, jointed and pointed including .</u> <u>unreinforced 3:1 sand cement bedding size 350 x 100mm thick under 100 x 100 x 180mm high unreinforced concrete Class B haunching behind, including necessary excavation</u>	m	175	
32	150 x 250mm Barrier kerb as	m	120	
33	Ditto circular on plan.	m	21	
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		Unit	Quantity	Rate	Amount
	<b><u>SABS Specification 927 Fig. 4, in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced 3:1 sand</u></b>				
	<b><u>cement bedding size 550 x 100mm thick under 100 x 100 x 180mm high unreinforced concrete Class B haunching behind, including necessary excavation.</u></b>				
34	150 x 250mm Barrier kerb and channel beam (elsewhere measured)	m	36		
35	Ditto circular on plan.	m	4		
36	175 x 300mm Mountable kerb as SABS Specification 927 Fig. 8B, in approximately 1000mm lengths, bedded, jointed and pointed including unreinforced 3:1 sand cement bedding and bedding as per mountable kerb haunching detail, including necessary excavation.	m	222		
37	Ditto circular on plan.	m	2		
38	75 x 150mm Edging kerb as SABS Specification 927 Fig. 4, in approximately 1000m	m	200		
39	Ditto circular on plan.	m	4		
	<b><u>PAINTWORK</u></b>				
	<b><u>Prepare and apply one coat white roadmarking paint to SABS 731:</u></b>				
40	In lines 100mm wide on precast concrete pavings	m	80		
41	Disabled sign or motiff maximum 1,4m high extreme	No	1		
	<b><u>Landscaping (Provisional)</u></b>				
	<b><u>Ground preparation</u></b>				
42	Cultivation and preparation of areas to be planted	m <sup>2</sup>	712		
	<b><u>Topsoil, compost, lime and fertilizer</u></b>				
	<b><u>Spread compost material including selected topsoil to an average depth of 100mm including supplying and applying fertiliser</u></b>				
	<b><u>broadcast evenly at the rate of 1kg of Super and Raw Phosphate plus 300g of Muriate of Potash per nine (9) square metres and thoroughly</u></b>				
	<b><u>disc fertiliser into topsoil and grade to an even surface.</u></b>				
43	Spread fertiliser	m <sup>2</sup>	712		
	Carried to Collection			R	
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	Unit	Quantity	Rate	Amount
<p><b><u>Grass</u></b> <u>Grass is to be approved local fine indigenous grass unless otherwise described</u></p> <p><u>The areas to receive grass are to be weeded and raked free of stones and all depressions left by the excavator are to be filled in with approved topsoil.</u></p> <p><u>The planting of the grass is to be carried out in sections as will be instructed by the Principal Agent until the entire area has been planted.</u></p> <p><u>Immediately each section has been grassed it is to be thoroughly watered and rolled. Should any shifting</u></p> <p><u>or piling up of topsoil due to wind or any other such piling up of soil against newly planted grass take place, the soil must immediately be raked level and rolled.</u></p> <p><b><u>Turfing</u></b></p> <p><u>Turfing is to be carried out with approved local indigenous grass sods measuring about 250 x 250 x 100mm thick. They are to be set in position,</u></p> <p><u>pummelled flat with a timber pummel and all cavities filled in with topsoil and the whole are top dressed on completion</u></p> <p><u>with approved topsoil supplied by the Contractor. The drains are to be carefully trimmed or dressed to an even surface and all depressions are to be filled in with approved topsoil.</u></p> <p><b><u>Supervision</u></b></p> <p><u>Supervision of workers planting grass is to be undertaken by a fulltime Supervisor to the approval of the Principal Agent.</u></p> <p><b><u>Watering, Weeding and Rolling</u></b></p> <p><u>The entire areas grassed or sodded are to be weeded and kept thoroughly watered and rolled throughout the period of the contract and for the maintenance period.</u></p> <p><b><u>Mowing of Grass During Maintenance Period</u></b></p> <p><u>The Contractor will be responsible for the mowing of grass and must allow for this in his prices.</u></p> <p><b><u>Grass planting, etc:</u></b></p>				
44 Kikuyu instant lawn grass laid within twenty four hours.	m <sup>2</sup>	714		
Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<b><u>Top dressing and rolling</u></b>				
45	Supplying and applying top dressing fertiliser broadcast evenly at the rate of 10-15g/m <sup>2</sup> .	m <sup>2</sup>	712		
	<b><u>Maintenance of grassed areas</u></b>				
46	Allow for watering, rolling and cutting of grass on the entire grassed area for the duration of the maintenance period	m <sup>2</sup>	712		
	<b><u>Aprons and Walkways (Provisional)</u></b>				
	<b><u>WALKWAYS AND APRONS</u></b>				
	<b><u>Excavation in earth not exceeding 2m deep for</u></b>				
47	Reduced levels under floors	m <sup>3</sup>	219		
	<b><u>Risk of collapse of excavations</u></b>				
48	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	28		
	<b><u>Extra over all excavations for carting away:</u></b>				
49	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	219		
	<b><u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density.</u></b>				
50	Under aprons, assembly ground and walkways	m <sup>3</sup>	188		
	<b><u>Compaction of surfaces</u></b>				
51	Scarify in-situ material for a depth of 150 mm and compact to obtain 93% modified AASHTO dry density	m <sup>2</sup>	727		
	<b><u>Prescribed density tests on filling:</u></b>				
52	Allow for the execution of all prescribed density tests on filling, etc., as pointed out by the Principal Agent on site	No	3		
	<b><u>SOIL POISONING</u></b>				
	<b><u>Soil poisoning applied by a registered pest control company and guaranteed against termite infestation for five years</u></b>				
53	Antproofing ground under solid floors ditto including raking out V-shaped channel 75mm wide against walls, etc., and thoroughly saturate with antproofing solution and fill in and tamp down.	m <sup>2</sup>	727		
	<b><u>CONCRETE</u></b>				
	<b><u>Unreinforced cement concrete (25 MPa) in</u></b>				
54	Bases	m <sup>3</sup>	2		
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		Unit	Quantity	Rate	Amount
	<b><u>FENCING</u></b>				
	<b><u>High Density Panel Fencing and Gates (Provisional)</u></b>				
	<b><u>Site Clearance</u></b>				
65	Allow for clearing site for the width of 1000mm where fencing runs are to be erected including removing trees, shrubs etc. not exceeding 200mm girth, grubbing up roots and roughly levelling	m	799		
	<b><u>SECURITY FENCING</u></b>				
	<b><u>2400mm High, 'High Density' panel fence with 4mm thick mesh diameter and aperture sizes of 76,2 x 12,7mm centres.</u></b>				
66	High density anti-climbing and anti-cut pressed mesh panel fencing 1,8m high, formed of 4mm diameter horizontal and 4mm diameter vertical high tensile wires galvanised with Marine Fusion Bond coating colour  Medium Grey with aperture size 76,2mm x 12,7mm and reinforcing V-section ribs, bolted with vandal resistant bolts and clamping plates to 85 - 45mm Taper locking post 2,4m high including Locking Recess Mechanism at 3,382m centres with sealed end caps and 30 x 3mm x 250mm long angle section base anchors with posts bedded in 15MPa concrete bases size 400 x 400 x 600mm deep with bitumen coated 500mm underdig	m	799		
	<b><u>Gates</u></b>				
	<b><u>Single leaf swing Gate size 12000 x 2400mm high</u></b>				
67	formed of galvanised framing including heavy duty hinges and spikes, 3mm diameter wire with apertures size 76.2mm x 25mm with galvanised mesh infill	No	1		
68	Ditto but double leaf swing gate size 6000x 2400mm high	No	1		
69	Sliding gate motor to suit 7152mm long x 3500mm high palisade filled framed sliding frame	No	1		
	<b><u>The following in 15Mpa/20mm concrete in bases</u></b>				
70	300 x 300 x 300mm Cement concrete 15MPa block with 12mm diameter x 200mm long galvanised pipe embedded in top as gate keep including all excavations, backfilling, etc.	No	3		
	<b><u>Sundries:</u></b>				
71	Extra over all excavations for excavation in soft rock.	m <sup>3</sup>	47		
72	Ditto, but in hard rock.	m <sup>3</sup>	16		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 1				
	Earthworks				

	Unit	Quantity	Rate	Amount
<b><u>DRAINAGE</u></b>				
NOTE:				
Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item.				
For Preambles refer to 'Department of Public Works: Specification of materials and methods to be use-PW371				
CPAP WORK GROUP				
Unless otherwise stated all items in this bill will be Work Group 146.				
<b><u>STORMWATER CHANNELS</u></b>				
<b><u>REINFORCED CONCRETE</u></b>				
<b><u>20MPa/19mm concrete:</u></b>				
<b><u>V-shaped channel 900mm wide x average 130mm thick reinforced with and including Type 193 fabric reinforcement,</u></b>				
<b><u>with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, laid to falls in panels not exceeding</u></b>				
<b><u>1850mm long with 12mm bitumen impregnated softboard movement joints with exposed edges raked out</u></b>				
<b><u>for a depth of 12mm and filled with two-part grey polysulphide sealing compound including backing cord,</u></b>				
<b><u>bond breaker, primer, etc and including all necessary excavation, formwork, filling, etc</u></b>				
73	V-Channel	m	709	
74	Extra for angles, intersections, ends, dressing into sides of catchpits, etc	No	15	
Carried to Collection				R
Section No. 7				
Bill No. 1				
Earthworks				

		Unit	Quantity	Rate	Amount
	<b><u>V-shaped channel 1200mm wide x average 150mm thick reinforced with and including Type 193 fabric reinforcement, with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, laid to falls in panels</u></b> <b><u>not exceeding 1850mm long with 12mm bitumen impregnated softboard movement joints with exposed edges raked</u></b> <b><u>out for a depth of 12mm and filled with two-part grey polysulphide sealing compound including backing cord</u></b> <b><u>, bond breaker, primer, etc and including all necessary excavation, formwork, filling, etc</u></b>				
75	Reinforcement	m <sup>2</sup>	425		
76	Extra for angles, intersections, ends, dressing into sides of catchpits, etc	No	12		
	<b><u>Triangular shaped concrete spill basin size 1200mm at head, 1500mm at base end and 1500mm long, formed</u></b> <b><u>of 200mm thick 20MPa/19mm concrete base with concrete upstand size 200 x 200mm high along two sides</u></b> <b><u>and 200 x 200 downstand edge beam, the top of the base inlaid with eleven (11) No. hard burnt bricks protruding 55mm above the surface of the concrete, with bricks cast into</u></b>				
77	concrete whilst still green and loose stones of 150 to 200mm diameter at the base of the spill basin for a width of 200mm, including all the necessary excavations, compaction, formwork, etc	No	1		
	<b><u>STORMWATER DRAINAGE</u></b>				
78	450mm Pipes laid in and including trenches exceeding 1m not exceeding 2m deep	m	82		
	<b><u>Sundries:</u></b> <b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>				
79	Soft rock	m <sup>3</sup>	6		
80	Hard rock	m <sup>3</sup>	3		
	<b><u>Keeping excavations free of water:</u></b>				
81	Allow for keeping excavations free of water	Item			
Carried to Collection				R	
Section No. 7					
Bill No. 1					
Earthworks					

		Unit	Quantity	Rate	Amount
	<b><u>Risk of collapse of excavations:</u></b>				
82	Vertical sides of excavations from ground level to not exceeding 1,5m deep	m <sup>2</sup>	164		
	<b><u>Extra over all excavations for carting away:</u></b>				
83	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	14		
	<b><u>Earth filling (G5) supplied by the contractor compacted in layers not exceeding 150mm thick to 93% Mod AASHTO density:</u></b>				
84	In backfilling to stormwater drainage pipe trenches	m <sup>3</sup>	44		
	<b><u>THE FOLLOWING IN 4NO. CATCHPITS</u></b>				
	<b><u>The following in catchpits, manholes, etc. of 150mm thick 20MPa/19mm concrete base, one brickwalls in NFX hardburnt</u></b>				
	<b><u>clay bricks rendered internally and including 3:1 cement benching, and precast concrete cover</u></b>				
	<b><u>slab 150mm thick with rebated opening for cast iron cover and frame (elsewhere), excavations, backfilling, carting away, etc:</u></b>				
85	Catchpit or junction box size 1 500 x 1 500mm Manhole not exceeding 750mm deep	No	3		
86	Catchpit or junction box size 1 500 x 1 500mm Manhole exceeding 750mm and not exceeding 1000mm deep	No	1		
	<b><u>PRECAST CONCRETE</u></b>				
	<b><u>20MPa precast concrete:</u></b>				
87	40mm Thick precast concrete removeable cover size 1500 x 1500mm	No	4		
	<b><u>Gratings, covers, etc:</u></b>				
88	600 x 600 x 60kg Cast iron dished grating and frame set in mortar to SABS 558	No	4		
89	Loose key for lifting manhole covers	No	1		
	<b><u>SUNDRIES</u></b>				
	<b><u>Extra over excavations in soft material for trenches, inspection chambers, etc</u></b>				
90	Soft rock	m <sup>3</sup>	1		
91	Hard rock	m <sup>3</sup>	1		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 1				
	Earthworks				



		Unit	Quantity	Rate	Amount
<b><u>SOIL AND WASTE WATER DRAINAGE</u></b>					
<b><u>uPVC pipes Class 34 for use under ground in accordance with SANS 791 - 1994 with uPVC couplings</u></b>					
<b><u>(All excavations to be labour intensive.)</u></b>					
92	110mm Pipes laid in and including trenches not exceeding 1000mm deep.	m	22		
93	110mm Pipes laid in and including trenches exceeding 1000mm and not exceeding 2000mm deep	m	133		
<b><u>Extra for</u></b>					
94	110mm Bend	No	4		
95	110mm Access bend.	No	3		
96	110mm Tee-junction.	No	3		
97	110mm Access junction.	No	2		
<b><u>Gulleys, etc.</u></b>					
98	110mm Diameter PVC dished gulley, complete with necessary pipe, head, trap, gulley surround, etc. not exceeding 1m deep	No	6		
<b><u>Sundries:</u></b>					
<b><u>Extra only over selected earth filling from the excavation in filling under, around and over pipes in ground to a depth of 300mm above top of pipes for supplying and carting on fine granular filling to the approval of the Principal Agent.</u></b>					
99	Earth filling	m <sup>3</sup>	109		
100	Cement concrete (20MPa) in lining of a minimum thickness of 150mm all round 110mm diameter PVC horizontal piping including formwork	m	10		
<b><u>Cast cement concrete (20MPa) block size 300 x 300 x 50mm thick finished smooth on top and all edges with 2-1 cement</u></b>					
<b><u>render with angles rounded and with sunk letters 'I.E' formed in top and setting in position over cleaning eye including necessary excavation.</u></b>					
101	Cast concrete block	No	3		
Carried to Collection				R	
Section No. 7					
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Earthworks					

		Unit	Quantity	Rate	Amount
	<b><u>Cast iron cleaning cover and frame, the frame jointed to top of 110mm diameter PVC pipe, groove for and fitted with stopper with raised letters 'C.E.' cast on, bedded in tallow and secured to frame with two gunmetal screws and encased in cement concrete (20MPa) surround size 375 x 375mm and finished with 3-1 cement render with angles rounded including formwork.</u></b>				
102	Cover and frame	No	3		
103	Break into existing manhole and make connections to 110mm diameter pipe	Item			
	<b><u>THE FOLLOWING IN 5No PRECAST CONCRETE SEWER WATER CIRCULAR INSPECTION CHAMBERS</u></b> <b><u>Precast concrete circular inspection chambers with standard precast medium duty concrete frame and cover, step irons including excavations in earth, risk of collapse, backfilling, etc.</u></b>				
104	Inspection chamber 1000mm diameter exceeding 750 and not exceeding 1000mm deep internally	No	1		
105	Ditto exceeding 1000 and not exceeding 1250mm deep internally. (Ditto).	No	2		
106	Ditto exceeding 1250 and not exceeding 1500mm deep internally. (Ditto).	No	1		
107	Ditto exceeding 1500 and not exceeding 1750mm deep internally. (Ditto).	No	1		
	<b><u>TESTING</u></b> <b><u>Testing:</u></b> <b><u>Allow for testing the whole surface water channels and soil and waste water drainage to the satisfaction of the Principal Agent and Local Authorities. All defective work is to be taken out and replaced at the Contractor's expense and the whole re-tested until found perfect.</u></b>				
108	Testing	Item			
Carried to Collection				R	
Section No. 7					
Bill No. 1					
Earthworks					

		Unit	Quantity	Rate	Amount
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Water connection:</u></b>				
109	Allow for the connecting of water supply pipe to the municipal mains, including all excavations, valves, stopcocks, chambers, etc.	No	1		
	<b><u>THE FOLLOWING IN WATER SUPPLIES IN GROUND</u></b>				
	<b><u>High density polyethelene (SABS 533 type 12) pressure pipes including jointing with approved type fittings and couplings:</u></b>				
110	25mm Pipes laid in and including trenches	m	36		
111	32mm Pipes laid in and including trenches	m	206		
	<b><u>Extra over HDPE pressure pipes for fittings:</u></b>				
112	25mm Fitting	No	12		
113	32mm Bend	No	5		
114	32 x 25mm Reducing tee	No	6		
115	32mm Reducing coupling	No	6		
116	32mm Tee.	No	2		
117	25mm Straight adaptor for steel	No	9		
118	32mm Straight adaptor for steel	No	2		
	<b><u>Unplasticized polyvinyl chloride (uPVC) Class 9 pipes to SANS 966 Part1</u></b>				
119	75mm Pipes laid in and including trenches	m	74		
	<b><u>Extra over uPVC piping for the following fittings:</u></b>				
120	75mm Bend	No	2		
	<b><u>VALVES, ETC.</u></b>				
	<b><u>Brass valves, etc., including joints to pipes and fittings:</u></b>				
121	20mm Diameter fullway screwdown wheelhead valve	No	5		
122	32mm Non-return valve	No	2		
123	75mm Non-return valve	No	1		
124	20mm Diameter fullway screwdown wheelhead valve.	No	5		
125	32mm Fullway gate valve	No	6		
126	75mm Fullway gate valve	No	1		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 1				
	Earthworks				

		Unit	Quantity	Rate	Amount
	<u>Stop valve boxes, etc:</u> <u>Excavate for and build stop valve box size 225 x 225mm internally with half brick sides in cement mortar and with</u> <u>cement concrete (20 MPa) kerb, size 445 x 445 x 75mm at top, finished smooth on exposed faces with 3-1 cement</u> <u>render with angles slightly rounded and with rebated opening for and fitted with and including 225 x 225mm cast iron hinged cover and frame and fill in and ram around</u>				
127	Stop Valve boxes	No	6		
128	Ditto but size 300 x 300mm internally with kerb size 520 x 520 x 75mm at top	No	1		
	<u>SUNDRIES</u> <u>Extra over excavations in earth for trenches, etc for excavation in:</u>				
129	Soft rock	m <sup>3</sup>	20		
130	Hard rock	m <sup>3</sup>	10		
	<u>Keeping excavations free of water:</u>				
131	Allow for keeping excavations free of water	Item			
	<u>Risk of collapse of excavations:</u>				
132	Vertical sides of excavations from ground level to not exceeding 1,5m deep	m <sup>2</sup>	484		
	<u>Selected earth filling from the excavations deposited in layers not exceeding 150mm thick after</u> <u>compaction and compacted to a density of 93% Modified AASHTO maximum density:</u> <u>Extra only over selected earth filling from the excavation in filling under, around and over pipes in ground to a depth</u> <u>of 300mm above top of pipes for supplying and carting on fine granular filling to the approval of the Principal Agent.</u>				
133	Extral Over	m <sup>3</sup>	98		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 1				
	Earthworks				

		Unit	Quantity	Rate	Amount
	<b><u>CONCRETE</u></b>				
	<b><u>Thrust blocks:</u></b>				
134	Unreinforced concrete (20MPa) in thrust blocks at bends, tees, etc., including necessary excavations, formwork, etc.	m <sup>3</sup>	1		
	<b><u>THE FOLLOWING IN 4NO. STANDPIPES</u></b>				
	<b><u>Galvanised mild steel pipes:</u></b>				
135	20mm Diameter pipe fixed on walls.	m	4		
	<b><u>Extra over galvanised mild steel pipes for the following fittings:</u></b>				
136	20mm Fittings.	No	8		
	<b><u>Brass taps, valves, etc., including joints to pipes and fittings:</u></b>				
137	20mm Diameter screwdown bib tap with nozzle threaded for hose union	No	4		
	<b><u>THE FOLLOWING IN GALVANISED STEEL TANK STANDS AND POLYETHYLENE WATER TANKS</u></b>				
	<b><u>EARTHWORKS</u></b>				
	<b><u>Excavation in earth not exceeding 2m deep for:</u></b>				
138	Base holes	m <sup>3</sup>	10		
	<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>				
139	Soft rock	m <sup>3</sup>	1		
140	Hard rock	m <sup>3</sup>	1		
	<b><u>Keeping excavations free of water:</u></b>				
141	Allow for keeping all excavations free of water	Item			
	<b><u>Risk of collapse of excavations:</u></b>				
142	Vertical sides of excavation for trenches, etc., from ground level to not exceeding 1,5m deep	m <sup>2</sup>	35		
	<b><u>Extra only over all excavations for loading and carting away:</u></b>				
143	Surplus spoil away from site (by volume as measured for excavation - Contractor to make allowance for increase in bulk)	m <sup>3</sup>	10		
	Carried to Collection			R	
	Section No. 7				
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	Earthworks				

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		Unit	Quantity	Rate	Amount
	<b><u>METALWORK</u></b>				
	<b><u>Galvanised mild steel:</u></b>				
152	24mm Diameter galvanised mild steel holding down bolt 750mm long with one end threaded and fitted with nut and two washers and other end fitted with 12mm thick plate size 70 x 70mm holed in centre and welded to end of bolt	No	32		
	<b><u>GALVANISED STEEL TANK STANDS</u></b>				
	<b><u>Water storage tank stand:</u></b>				
	<b><u>Hot dipped galvanised mild steel 9m high water storage tank stand capable of supporting 1No, 10 000litre plastic water storage</u></b>				
	<b><u>tank complete with platform, safety cat ladder, 0,9m wide standard 'eggcrate' open walkway with</u></b>				
	<b><u>safety handrail all round tank and with all necessary fixings and hoisting and fixing in position on holding down</u></b>				
153	12 x 150mm Anchore bolts with nut and washer	No	4		
	<b><u>Beige polyethylene water tanks, etc:</u></b>				
154	10,000 Litre cylindrical tank, light beige standard colour, or any approved colour, complete with lid and fixed with 12mm chains fitted into hose pipes to hooks, welded to steel stand as per the Manufacturer's instructions (stand elsewhere measured)	No	2		
	<b><u>THE FOLLOWING IN GALVANISED STEEL FIRE WATER STORAGE TANK AND STAND</u></b>				
	<b><u>EARTHWORKS</u></b>				
	<b><u>Excavation in earth not exceeding 2m deep for:</u></b>				
155	Surface trenches	m <sup>3</sup>	44		
	<b><u>Extra over trench and hole excavations in earth for excavation in:</u></b>				
156	Soft rock	m <sup>3</sup>	4		
157	Hard rock	m <sup>3</sup>	2		
	<b><u>Keeping excavations free of water:</u></b>				
158	Allow for keeping all excavations free of water	Item			
	<b><u>Risk of collapse of excavations:</u></b>				
159	Vertical sides of excavation for trenches, etc., from ground level to not exceeding 1,5m deep	m <sup>2</sup>	144		
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<b><u>Extra only over all excavations for loading and carting away:</u></b>				
160	Surplus spoil away from site (by volume as measured for excavation - Contractor to make allowance for increase in bulk)	m <sup>3</sup>	21		
	<b><u>Selected earth filling from the excavations deposited in layers not exceeding 150mm thick after compaction and compacted to a density of 95% Modified AASHTO maximum density:</u></b>				
161	In backfilling to foundations around foundation walls	m <sup>3</sup>	23		
	<b><u>Compaction of ground surfaces:</u></b>				
162	Stabilize in-situ reduced levels by scarifying to depth of 150mm and compacting to a density of 98% Modified AASHTO maximum density	m <sup>2</sup>	44		
	<b><u>CONCRETE</u></b>				
	<b><u>Unreinforced Concrete</u></b>				
	<b><u>10 MPa/19 mm concrete in:</u></b>				
163	Blinking under bases cast against excavated surfaces	m <sup>3</sup>	2		
	<b><u>Reinforced Concrete</u></b>				
	<b><u>25MPa/19mm concrete in:</u></b>				
164	Strip footing cast against excavated surfaces	m <sup>3</sup>	11		
165	Beams	m <sup>3</sup>	10		
	<b><u>CONCRETE TESTING</u></b>				
	<b><u>Concrete test cubes:</u></b>				
166	Allow for all necessary concrete test cubes size 150 x 150 x 150mm cast from batches of concrete required for the entire contract as specified, made, stored, cured and tested in accordance with SABS Methods 861 and 863, including use and waste of approved cube moulds, transporting to an approved laboratory for testing, paying all charges and submitting reports to the Principal Agent.	No	3		
	<b><u>FORMWORK</u></b>				
	<b><u>Formwork (use and waste) to concrete to:</u></b>				
167	Sides of concrete beams	m <sup>2</sup>	104		
	<b><u>Boxing in Class F2 formwork to form:</u></b>				
168	20 x 20mm horizontal chamfer.	m	138		
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
<b><u>GALVANISED STEEL TANK AND STAND</u></b>					
<b><u>Water storage tank and stand:</u></b>					
169	Supply and install an approved 245.139KL pressed steel ground fire water storage tank size 10,98 x 6,10 x 3,66m high complete with galvanised mild steel pipe connections, 1m plate cover, vented manhole cover, external and internal ladder, water level indicator, all necessary fixings, and fixing on tank base (elsewhere measured) on ground level.	No	1		
<b><u>TESTING</u></b>					
<b><u>Testing:</u></b>					
170	Allow for testing the whole of the water supplies to the satisfaction of the Principal Agent and Local Authorities. All defective work is to be taken out and replaced at the Contractor's expense and the whole re-tested until found perfect	Item			
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Earthworks					

**BILL NO. 1**  
**EARTHWORKS**  
**COLLECTION**

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**SECTION NO. 7****EXTERNAL WORKS****BILL NO. 2****PROVISIONAL SUMS****BUDGETARY ALLOWANCES****Retaining Wall**

- 1 Provide the sum of R1 500 000(One Million, Five Hundred Thousand Rand) for Retaining walls

Item

1 500 000 00

**Steps and associated features**

- 2 Provide the sum of R450 000 (Four Hundred and Fifty Thousand Rand Only) for Concrete Steps and associated features

Item

450 000 00

Carried To Section Summary

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Bill No. 2

Provisional Sums

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**SECTION NO. 8**  
**PROVISIONAL SUM**

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**SECTION NO. 8****PROVISIONAL SUM****PROVISIONAL SUMS****NOTES:**

1. The Contractor's attention is drawn specifically to the Principal Building Agreement Clause 20.0 (Nominated Sub-Contractors), Clause 21.0 (Selected Sub-Contractors) and Clause 22 (Work by Others) and to the related Clauses in Bill No. 1 - Preliminaries.

2. The Contractor's attention is drawn also to the definition of attendance on Nominated or Selected Sub-Contractors and of fuel, power and water for commissioning of mechanical and other specialised installations given in the JBCC Preliminaries.

3. Where special attendance includes the provision of hoisting facilities for a Sub-Contractor then the Contractor shall:-

\* Ensure that the capacities of his hoisting equipment are sufficient to deal with the masses and the quantities of the items to be hoisted,

\* Schedule the times of availability of the hoisting equipment for each Sub-Contractor,

\* Provide all necessary personnel to operate the hoisting equipment, all to enable the Sub-Contractor to execute the hoisting or lowering of his material, etc. using the facilities provided by the Contractor.

**JUNGLE GYM**

- 1 Provide the sum of R 120,000.00 (One Hundred and Twenty Thousand Rand) for supply and installation of jungle gym equipment complete

Item 120 000 00

- 2 Allow for profit

Item

- 3 Allow for attendance

Item

**BOREHOLE**

- 4 Provide the sum of R 500,000.00 (Five Hundred Thousand Rand) for supply and installation of water borehole complete

Item 500 000 00

- 5 Allow for profit

Item

- 6 Allow for attendance

Item

**COMBI COURT**

- 7 Provide the sum of R 992,200.00 (Nine Hundred and Ninety Two Thousand Two Hundred Rand) for Combi Court.

Item 992 200 00

- 8 Allow for profit

Item

- 9 Allow for attendance

Item

Carried To Section Summary

**R**

Section No. 8

Bill No. 1

Provisional Sums

		Amount	
<b><u>SOCCER FIELD</u></b>			
10	Provide the sum of R 435,000.00 (Four Hundred and Thirty Five Thousand Rand) for Soccer Field.	Item	435 000 00
11	Allow for profit	Item	
12	Allow for attendance	Item	
<b><u>REFUSE AREA</u></b>			
13	Provide the sum of R250,000.00 (Two Hundred and Fifty Thousand Rand) for Refuse area.	Item	250 000 00
14	Allow for profit	Item	
15	Allow for attendance	Item	
<b><u>PUMP HOUSE</u></b>			
16	Provide the sum of R 250,000.00 (Two Hundred and Fifty Thousand Rand) for Pump House.	Item	250 000 00
17	Allow for profit	Item	
18	Allow for attendance	Item	
<b><u>SCHOOL SIGNAGE</u></b>			
19	Provide the sum of R 300,000.00 (Three Hundred Thousand Rand) for School Signage.	Item	300 000 00
20	Allow for profit	Item	
21	Allow for attendance	Item	
<b><u>CLO</u></b>			
22	Provide the sum of R 288,000.00 (Two Hundred and Eighty Eight Thousand Rand) for the engagement of CLO for a period of 24 months	Item	288 000 00
<b><u>CONTRACT PARTICIPATION GOAL</u></b>			
23	Allow a provisional amount of R1 500,000.00 (One Million, Five Hundred Thousand Rand Only) for the appointment of training coordinator, Mentor, training service providers and training of the beneficiary enterprises including monitoring and monthly reporting	Item	1 500 000 00
24	Add for Profit	Item	
25	Add Attendance	Item	
<b><u>GRADUATE APPOINTMENT ALLOWANCE</u></b>			
26	Provide an amount of R750 000.00( Seven Hundred and Fifty Thousand Rands Only) for four number of Local Graduates, Training to be omitted in part or whole as instructed by the Principal Agent	Item	750 000 00
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		Amount
27	Add for profit	Item
28	Add for Attendance	Item
<b><u>BUDGETARY ALLOWANCES</u></b>		
<b><u>CPAP</u></b>		
29	Provide the sum of R2 500 000 (Two Million, Five Hundred Thousand ) for Escalation to be adjusted accordingly to contract conditions	Item 2 500 000 00
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**SECTION NO. 8**  
**PROVISIONAL SUM**  
**SECTION SUMMARY**

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Amount

Carried to Final Summary

**R**

Section No. 8  
SECTION SUMMARY

Section No. **FINAL SUMMARY**

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ADD: Contingencies

Allow for Contingencies, to be used by the Client in terms of Clause 17 of the Principal Building Agreement.

1 800 000 00

SubTotal excluding Value Added Tax

ADD VAT @ 15%:

Carried to Tender

**R**

FINAL SUMMARY