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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>	<b>R</b>	
	<p><b><u>PREAMBLES FOR TRADES</u></b></p> <p>The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained</p> <p>Supplementary preambles to the Model Preambles covering clauses of a general nature, clauses pertaining to specific materials and amendments to clauses in the Model Preambles are incorporated in these bills of quantities to satisfy the requirements of this project</p> <p>The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the Model Preambles and in any supplementary preambles</p> <p><b><u>GENERAL</u></b></p> <p>If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories "F", "T" or "V" as the case may be below such item, where "F" denotes a fixed amount (amount not to be varied), "T" denotes an amount variable in proportion to time and "V" denotes an amount variable in proportion to value</p> <p><b><u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u></b></p>		
1	<p><b>Definitions (A1)</b></p> <p>Definitions and interpretation (clause 1)</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
2	<p><b>Objective and Preparation (A2 to A14)</b></p> <p>Offer acceptance and performance (clause 2)</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
	<b>Carried Forward</b>	<b>R</b>	
	<p>Section No. 1 Preliminaries and Generals Bill No. 1 Preliminaries <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b></p>		

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	<b>Brought Forward</b>	<b>R</b>	
3	Documents (clause3)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
4	Design responsibility (clause 4)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
5	Employer's agents (clause 5)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	<p>The principal agent shall:- monitor and control progress and scheduling- monitor all contract conditions, and- coordinate the efforts of the employer's agents, the contractor and subcontractorsThe powers conferred on the principal agent in terms of this clause and/or the exercising of these powers shall not be construed as removing or diminishing any of the obligations of the Contractor in terms of the Principal Building Agreement, whether financial, contractual or otherwise, nor shall the exercising of these powers create any privity of contract as between the Employer or his agents on the one part and the Contractor or subcontractors or suppliers on the other part</p> <p>The principal agent reserves the right to attend and participate in all contractor/subcontractor's meetings, to invite other employer's agents to attend such meetings at his discretion and to converse and chair any such meetings if the contractor is derelict in his duty in arranging such meetings to the degree of frequency and comprehensiveness dictated in the opinion of the project manager by the circumstances and exigencies of the construction process</p> <p>The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained</p>		
6	Site representative (clause 6)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	<b>Carried Forward</b>	<b>R</b>	
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	<b>Brought Forward</b>	<b>R</b>	
7	<p>Compliance with regulations (clause 7)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>Sub-clause 7.3 added: The Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 will in all respects be applicable to this contract. All obligations in respect of health and safety requirements of the Contractor are set out in the Scope of Work. Sub-clause 7.3.1 is added: Notwithstanding any actions which the employer may take, the contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2014, for which the contractor is liable as mandatory. By entering into this agreement it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37 (2) of the Act and will enter into the mandatory agreement as set out in the Scope of Work. This clause will be sufficient to establish the mandatory obligations of the contractor in the event the parties fail to execute the aforesaid mandatory agreement.” Note: A separate clause has been included in Section C: Specific Preliminaries of the bills of quantities / lump sum document for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification. The contractor shall also comply with the additional requirements with regard to the Coronavirus pandemic in terms of all Covid-19 legislation, regulations and guidelines.</p>		Item
8	<p>Works risk (clause 8)</p> <p>Fixed: _____ Value related: <u>R 8 306.50</u> _____ Time related: _____</p>		Item
9	<p>Indemnities (clause 9)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>Works insurances (clause 10)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>		Item
10	<p>Liability insurances (clause 11)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>		Item
	<b>Carried Forward</b>	<b>R</b>	
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		<b>Brought Forward</b>	R	
11	Effecting insurance (clause 12)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
12	<b>No clause</b>		N/A	
	Security (clause 14)			
	The security to be submitted by the contractor to the employer will be as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
	<b><u>Execution (A15-A23)</u></b>			
13	<b>A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS</b>			
	Clause 15.0			
	Clause 15.1.1 is amended by replacing it with:			
	No clause			
	Clause 15.1.2 is amended by replacing it with:			
	The <b>security</b> selected in terms of 14.0			
	Clause 15.1 is amended by the addition of the following clause:			
	15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) <b>calendar days of commencement date</b>			
	Clause 15.2.1 is amended by replacing it with the following clause:			
	Preparation for and execution of the works (clause 15)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
14	Access to the works (clause 16)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
		<b>Carried Forward</b>	R	
	Section No. 1			
	Preliminaries and Generals			
	Bill No. 1			
	Preliminaries			
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	<b>Brought Forward</b>	<b>R</b>	
15	Contract instructions (clause 17)  Fixed: _____ Value related: _____ Time related: _____	Item	
16	Setting out of the works (clause 18)  Fixed: _____ Value related: _____ Time related: _____  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 encroachment  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	
17	Assignment (clause 19)  Fixed: _____ Value related: _____ Time related: _____  The contractor shall not cede his rights or delegate his obligations in terms of this agreement unless specifically called for by the employer  The contractor shall not cede his rights or delegate his obligations in terms of this agreement unless specifically called for by the employer	Item	
18	Nominated subcontractors (clause 20)  Fixed: _____ Value related: _____ Time related: _____	Item	
19	Selected subcontractors (clause 21)  Fixed: _____ Value related: _____ Time related: _____  Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted All amounts allowed under Provisional Amounts are intended to be awarded to Selected Subcontractors	Item	
	<b>Carried Forward</b>	<b>R</b>	
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	<b>Brought Forward</b>	<b>R</b>	
27	<p>Revision of date of practical completion (clause 29)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3)</p> <p>The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3)</p>	Item	
28	<p>Penalty for non-completion (clause 30)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><b><u>Payment (A31 - A35)</u></b></p> <p>Interim payment to the contractor (clause 31)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item	
29	<p>Adjustment to the contract value (clause 32)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing</p> <p>Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing</p>	Item	
	<b>Carried Forward</b>	<b>R</b>	
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	<b>Brought Forward</b>	<b>R</b>	
30	Recovery of expense and loss (clause 33)  Fixed: _____ Value related: _____ Time related: _____	Item	
31	Final account and final payment (clause 34)  Fixed: _____ Value related: _____ Time related: _____  The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account	Item	
32	The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion		
33	The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account		
34	Payment to other parties (clause 35)  Fixed: _____ Value related: _____ Time related: _____	Item	
	<b><u>Cancellation (A36-A39)</u></b>  Cancellation by employer - contractor's default (clause 36)  Fixed: _____ Value related: _____ Time related: _____	Item	
	<b>Carried Forward</b>	<b>R</b>	
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	<b>Brought Forward</b>	<b>R</b>	
	Cancellation by employer - loss and damage (clause 37)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	Cancellation by contractor - employer's default (clause 38)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
35	Cancellation - cessation of the works (clause 39)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	<b><u>Dispute (A40)</u></b>		
36	Dispute Settlement (clause 40)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	<b><u>Substitute Provisions (A41)</u></b>		
37	State clauses (Clause 41)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder		
	<b><u>SCHEDULE</u></b>		
	Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder		
38	Pre-tender information (clause 42)		
	F:..... V:..... T:.....	Item	
	<b><u>42.1 CONTRACTING AND OTHER PARTIES</u></b>		
	42.1.1 Employer: Mvula Trust		
	42.1.2 Principal Agent: Nyeleti Consulting (Pty) Ltd		
	<b>Carried Forward</b>	<b>R</b>	
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	<b>Brought Forward</b>	<b>R</b>
42.1.5 Civil and Structural Engineer: Nyeleti Consulting (Pty) Ltd		
<b><u>42.2 CONTRACT DETAILS</u></b>		
42.2.1 Works Description: Construction of sanitation facilities		
42.2.2 Site Description: as per the information on the tender data		
42.2.3 Work or installations by direct contractors:		
As per the information provided in the tender data		
42.2.4 This agreement is for a government contract where there are specific options that are applicable to a State organ only	<b>Yes</b>	
42.2.5 Date on which possession of the site is intended to be given:		
As per the information provided in the tender data		
42.2.6 Period for the commencement of the works after the contractor takes possession of site:		
Seven Days		
42.2.7 For the works as a whole. Intended date of practical completion and the penalty per calendar day		
Intended Date of Practical Completion: As per the information provided in the tender data		
Penalty Amount: The penalty per calendar day shall be:0.05% per R100 of the contract value (inclusive of value added tax)		
42.2.8 For the works in sections: Intended date of practical completion and the penalty per calendar day Section		
1.N/A..... DateR.N/A..... Penalty Amount		
42.2.9 The law applicable to this agreement shall be that of South Africa (country)		
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	Brought Forward	R
<b><u>42.3 INSURANCES</u></b>		
42.3.1 Contract works insurance to be effected by:Contractor:  For the Sum of R Contract Amount + 10.00 % With a deductible amount the contractor deems appropriate		
42.3.2 Supplementary insurance is required No		
42.3.3 Public liability insurance to be effected by:Contractor:  For the Sum of R 5 000 000-00 With a deductible amount the contractor deems appropriate		
<b><u>42.4 DOCUMENTS</u></b>		
42.4.1 Waivers of contractors lien or right of continuing possession is required           Yes		
42.4.2 Number of construction document copies to be supplied to the contractor free of charge: 3 Number of		
42.4.3 Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with: "Standard System of Measuring Builders' Work"		
42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within 5 working days The priced bills of quantities must be handed in with the tender		
42.4.5 JBCC Engineering General Conditions are to be included in the contract documents: No		
42.4.6 The contract value is to be adjusted using escalation adjustment indices		
	No	
Where JBCC CPAP is to be used Base	n/a	
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	<b>Brought Forward</b>	R	
	42.4.7 Details of changes made to the provision of JBCC standard documentation:		
	Part 1 - Contract Data completed by the Employer		
	<b><u>SECTION B: PRELIMINARIES</u></b>		
	<b><u>Definitions and interpretation (B1)</u></b>		
39	Definition and interpretation (B1.1 - B1.4.6)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	<b><u>Documents (B2)</u></b>		
40	Checking of documents (B2.1)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
41	Provisional bills of quantities (B2.2)      NA		
	Fixed: _____ Value related: _____ Time related: _____	Item	
42	Availability of construction documentation (B2.3)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
43	Interests of agents (B2.4)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
44	Priced documents (B2.5)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
45	Tender submission (B2.6)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
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	<b>Brought Forward</b>	R	
	<b><u>Management of contract (B4)</u></b>		
56	Inspection of adjoining properties etc (B3.11)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
57	Management of the works (B4.1)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
58	Programme for the works (B4.2)		
	Fixed: _____ Value related: _____ Time related: __R 3000.00 _____	Item	
59	Progress meetings (B4.3)		
	Fixed: _____ Value related: _____ Time related: _R 2000.00 _____	Item	
60	Technical meetings (B4.4)		
	Fixed: _____ Value related: _____ Time related: _R 1000.00 _____	Item	
61	Labour and Plant records (B4.5)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	<b><u>Samples, Shop Drawings and Manufacturer's Instructions (B5)</u></b>		
62	Samples of materials (B5.1)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
63	Workmanship samples (B5.2)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
64	Shop drawings (B5.3)		
	Fixed: _____ Value related: _____ Time related: _____	Item	
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65	Compliance with Manufacturer's Instructions (B5.4)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
	<b><u>Temporary works and plant (B6)</u></b>			
66	Deposits and fees (B6.1)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
67	Enclosure of the works (B6.2)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
68	Advertising (B6.3)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
69	Plant, equipment, sheds and offices (B6.4)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
70	Main notice board (B6.5)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
71	Subcontractors' notice board (B6.6)			
	Not applicable		Item	
	<b><u>Temporary services (B7)</u></b>			
72	Location (B7.1)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
73	Water (B7.2) Option [A] shall apply			
	Fixed: _____ Value related: _____ Time related: _____		Item	
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74	Electricity (B7.3) Option [A] shall apply			
	Fixed: _____ Value related: _____ Time related: _____		Item	
75	Telecommunication facilities (B7.4)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
76	Ablution facilities (B7.5) Option [A] shall apply			
	Fixed: _____ Value related: _____ Time related: __R _____		Item	
	<b><u>Prime cost amounts (B8)</u></b>			
77	Responsibility for prime cost amounts (B8.1)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
	<b><u>Attendance on N/S Subcontractors (B9)</u></b>			
78	General attendance (B9.1)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
79	Special attendance (B9.2)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
80	Commissioning - Fuel, water and power (B9.3)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
	<b><u>Financial aspects (B10)</u></b>			
81	Statutory taxes, duties and levies (B10.1)			
	Fixed: _____ Value related: _____ Time related: _____		Item	
82	Payment of preliminaries (B10.2) Option [A] shall apply			
	Fixed: _____ Value related: _____ Time related: _____		Item	
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83	Adjustment of preliminaries (B10.3) Option [A] shall apply Fixed: _____ Value related: _____ Time related: _____	Item	
84	Payment certificate cash flow (B10.4) Fixed: _____ Value related: _____ Time related: _____	Item	
	<b><u>General (B11)</u></b>		
85	Protection of works (B11.1) Fixed: _____ Value related: _____ Time related: _____	Item	
86	Protection/isolation of existing/sectionally occupied works (B11.2) Fixed: _____ Value related: _____ Time related: _____	Item	
87	Security of the Works (B11.3) Fixed: _____ Value related: _____ Time related: _____  The security to be submitted by the contractor to the employer will be as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT)	Item	
88	Notice before covering work (B11.4) Fixed: _____ Value related: _____ Time related: _____	Item	
89	Disturbance (B11.5) Fixed: _____ Value related: _____ Time related: _____	Item	
90	Works cleaning and clearing (B11.7) Fixed: _____ Value related: _____ Time related: _____	Item	
91	Vermin (B11.8) Fixed: _____ Value related: _____ Time related: _____	Item	
92	Overhand work (B11.9) Fixed: _____ Value related: _____ Time related: _____	Item	
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93	Instruction manuals and guarantees (B11.10) Fixed: _____ Value related: _____ Time related: _____	Item	
94	As built information (B11.11) Fixed: _____ Value related: _____ Time related: _____	Item	
95	Tenant Installations (B11.12) Fixed: _____ Value related: _____ Time related: _____	Item	
	<b><u>Schedule of variables (B12)</u></b>		
96	Pre-tender information (B12.1) Fixed: _____ Value related: _____ Time related: _____	Item	
	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional: No		
	12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete No		
	12.1.3 Interest of agents (B2.4)		
	12.1.4 Defined works area (B3.1)		
	12.1.5 Geotechnical investigation (B3.2) N/A		
	12.1.6 Existing premises occupied (B3.4)		
	12.1.7 Previous work - dimensional accuracy (B3.4)		
	12.1.8 Previous work - defects (B3.5)		
	12.1.9 Services - known (B3.7)		
	12.1.10 Protection of trees (B3.9) All trees should be protected and only on instruction of the Principal Agent may any trees be removed		
	12.1.11 Inspection of adjoining properties (B3.11)		
	<b>Carried Forward</b>	<b>R</b>	
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	<b>Brought Forward</b>	R	
12.1.12	Enclosure of the works (B6.2)		
12.1.13	Offices (B6.4.3) An office for the clerck of works should be provided		
12.1.14	Main notice board (B6.5) YES		
12.1.15	Subcontractors notice board (B6.6) A notice board is required No		
12.1.16	Water (B7.2) Alternative Selected: A		
12.1.17	Electricity (B7.3) Alternative selected: A		
12.1.18	Telecommunications (B7.4)		
12.1.19	Ablution facilities (B7.5) Alternative selected: A		
12.1.20	Protection of existing/sectionally occupied works (B11.2)		
12.1.21	Special attendance (B9.2) Subcontractor (1) details: N/A		
12.1.22	Protection of the works (B11.1) N/A		
12.1.23	Disturbance (B11.5) N/A		
12.1.24	Environmental Disturbance (B11.6) N/A		
<b><u>Post tender information (B12.2)</u></b>			
12.2.1	Payment of preliminaries Alternative selected: B		
12.2.2	Adjustment of preliminaries Alternative selected: A		
12.2.3	Additional agreed preliminaries items N/A		
	<b>Carried Forward</b>	R	
Section No. 1 Preliminaries and Generals Bill No. 1 Preliminaries <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
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	<b>Brought Forward</b>	<b>R</b>	
<b><u>SECTION C: SPECIFIC PRELIMINARIES</u></b>			
Any special items to meet the particular circumstances of a specific project are embodied in this section. Where required for an aspect of the works to be executed according to a design by a consulting engineer, a recital of the headings to the individual clauses of the JBCC Engineering General Conditions are included			
97	Site instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor		
	Fixed: _____ Value related: _____ Time related: _____	Item	
98	Black economic empowerment and training		
	Fixed: _____ Value related: _____ Time related: _____	Item	
99	Proprietary branded products		
	Fixed: _____ Value related: _____ Time related: _____	Item	
100	Testing of flat roof waterproofing for water tightness Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least 36 hours as a test to ensure the water tightness of the waterproofing and before any further construction work is carried out above the waterproofing		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instructions after consultation with the manufacturer's authorised representative		
101	Contract instructions		
	Fixed: _____ Value related: _____ Time related: _____	Item	
	Contract instructions issued on site are to be recorded in triplicate in a contract instruction book which is to be supplied and maintained on site by the contractor		
	<b>Carried Forward</b>	<b>R</b>	
Section No. 1 Preliminaries and Generals Bill No. 1 Preliminaries <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>	<b>R</b>	
102	<p>Labour record</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and descriptions of tradesmen and labourers employed by him and all subcontractors on the works each day of that week</p>	Item	
103	<p>Plant record</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools used on the works each day of that week</p>	Item	
104	<p>Guarantees</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement</p>	Item	
105	<p>Overtime</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item	
	<b>Carried Forward</b>	<b>R</b>	
	<p>Section No. 1 Preliminaries and Generals Bill No. 1 Preliminaries <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b></p>		

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
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	<b>Brought Forward</b>	<b>R</b>	
	Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer		
106	Co-operation of contractor for cost management	Item	
	Fixed: _____ Value related: _____ Time related: _____		
	It is specifically agreed that the contractor accepts the obligation of assisting the professional consultants in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The quantity surveyor undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedures to be implemented and the contractor will attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures in regard to all subcontractors		
107	Occupational Health and Safety Specification	Item	
	Fixed: _____ Value related: _____ Time related: _____		
	Any Principal Contractor entering into a contract with The Developer must achieve an acceptable level of Occupational Health and Safety performance. Refer to "Project Specification" and "Safety, Health and Environmental Evaluation Questionnaire" The contractor to comply with all provisions of the above and to be enforced on all selected and or other sub-contractors, as no claim afterwards will be entertained		
	<b><u>SUMMARY OF CATEGORIES</u></b>		
	Category : Fixed .....		
	Category : Value .....		
	Category : Time .....		
	<b>Carried to Final Summary</b>	<b>R</b>	
	Section No. 1		
	Preliminaries and Generals		
	Bill No. 1		
	Preliminaries		
	<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>"Sisalation 405" or similar approved residential grade aluminium foil based insulation:</u></b>			
6	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	70
<b><u>Sundries</u></b>			
7	Two coats creosote on sawn timbers	m2	28
<b><u>EAVES, VERGES, ETC</u></b>			
<u>Medium density plain fibre-cement fascias and barge boards:</u>			
8	19 x 235mm Fascias and barge boards, including aluminium H-profile jointing strips	m	48
<b><u>DOORS ETC</u></b>			
<u>Wrought meranti doors hung to steel frames:</u>			
9	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard	No	10
10	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding including 150mm undercut (D2)	No	16
<b><u>IRONMONGERY</u></b>			
Carried Forward			R
Section No. 3 Renovations SM2, SF2,M4 and 2 x F4 Bill No. 1 Renovations <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

Brought Forward			R
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
For preambles see "Specifications of materials and methods to used - PW 371"			
<b><u>CATCHES, CABIN HOOKS, ETC</u></b>			
<b><u>"Approved"</u></b>			
11	150mm chrome cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	10
<b><u>LOCKS</u></b>			
<b><u>"Union Assa Abloy" or similar approved:</u></b>			
12	50mm Brass padlock	No	10
13	Four lever lockset	No	10
14	"Ref. CZ80941SC" Indicator bolt	No	16
<b><u>HANDLES</u></b>			
<b><u>"Union Assa Abloy" or similar approved:</u></b>			
15	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres	Pairs	10.0
<b><u>LETTERS, NAMEPLATES, ETC</u></b>			
<b><u>"Dorma" or similar approved</u></b>			
16	DSS-130 Engraved "Male" information sign	No	3
17	DSS-130 Engraved "Female" information sign	No	3
<b><u>SUNDRIES</u></b>			
18	25mm Diameter wall mounted door stop plugged	No	26
Carried Forward			R
Section No. 3 Renovations SM2, SF2,M4 and 2 x F4 Bill No. 1 Renovations <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward			R
	<u>"Vaal"</u>			
23	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code : 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 8448Z0).	No	2	
	<b><u>WASTE UNIONS ETC</u></b>			
	<u>"Cobra Watertech"</u>			
24	38mm "Cobra 316" unslotted waste and plug with chain	No	2	
	<b><u>TRAPS ETC</u></b>			
	<u>"Marley"</u>			
25	40mm Flexi butyl rubber trap with reseal "P" trap	No	2	
	<b><u>TAPS, VALVES, ETC</u></b>			
	<u>"Cobra Watertech"</u>			
26	19mm chrome plated push button tap	No	4	
27	15mm Code 232/350 FCP angle regulating valve and flexible connection pip	No	6	
28	15mm 128 CP Star underwall pattern stopcock.	No	1	
	<b><u>SANITARY PLUMBING</u></b>			
	<u>uPVC pipes</u>			
29	50mm Pipe	m	5	
30	110mm Pipes	m	2	
31	50mm Pipes laid in and including trenches not exceeding 1m deep	m	2	
	<b>Carried Forward</b>			R
	Section No. 3 Renovations SM2, SF2,M4 and 2 x F4 Bill No. 1 Renovations <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION No.4</u></b>			
	<b><u>BILL No.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>SITE CLEARANCE, ETC.</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	65	
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	65	
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep</u></b>			
3	Reduced levels under floors	m3	20	
4	Trenches	m3	8	
	<b><u>Extra over trench and hole excavations in earth for excavation:</u></b>			
5	Soft rock	m3	1	
6	Hard rock	m3	1	
	<b><u>Extra over all excavations for carting away</u></b>			
7	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	5	
	<b>Carried Forward</b>		R	
	Section No. 4 Type SM3 + 3UR Bill No. 1 Earthworks <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Risk of collapse of excavations</u></b>			
8	Sides of trench and hole excavations not exceeding 1,5m deep	m2	24
<b><u>Keeping excavations free of water</u></b>			
9	Keeping excavations free of all water other than subterranean water	Item	
<b><u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u></b>			
10	Backfilling to trenches, holes, etc	m3	4
<b><u>Approved G5 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density</u></b>			
11	Under floors, steps, paving etc.	m3	3
<b><u>Compaction of surfaces</u></b>			
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	21
<b><u>Prescribed density tests on filling</u></b>			
13	"Modified AASHTO Density" test	No	5
<b><u>SOIL POISONING</u></b>			
<b><u>Soil insecticide in accordance with SANS 5859:</u></b>			
14	Soil insecticide (protection against termites) applied as specified under floors, etc including forming and poisoning shallow furrows against foundation walls, etc filling in furrows and ramming	m2	21
15	To bottoms and sides of trenches etc	m2	38
<b>Carried Forward to Summary of Section No. 4</b>			R
Section No. 4			
Type SM3 + 3UR			
Bill No. 1			
Earthworks			
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>UNREINFORCED CONCRETE,ETC</u></b>			
	<b><u>25MPa/19mm concrete</u></b>			
1	Surface blinding under footings and bases	m3	1	
2	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavations, backfilling and etc.	m	10	
	<b><u>REINFORCED CONCRETE</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
3	Surface beds cast in panels on waterproofing.	m3	2	
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
4	Strip footings	m3	3	
	<b><u>TEST BLOCKS</u></b>			
5	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	2	
	<b>Carried Forward</b>			
	Section No. 4 Type SM3 + 3UR Bill No. 2 Concrete, Formwork and Reinforcement <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		R	

Brought Forward			R
	<u>Finishing top surfaces of concrete smooth with a steel trowel.</u>		
6	Surface beds, slabs, etc	m2	21
	<u>FORMWORK</u>		
	<u>Rough formwork to sides</u>		
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	15
	<u>MOVEMENT JOINTS ETC</u>		
	<u>Expansion joints with 10mm softboard between vertical concrete and brick surfaces:</u>		
8	Not exceeding 300mm high to edges of surface beds	m	20
	<u>Saw cut joints</u>		
9	Saw cut joints in top of concrete (Provisional)	m	10
	<u>REINFORCEMENT</u>		
	<u>Mild steel reinforcement to structural concrete work:</u>		
10	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.32
	<u>High tensile steel reinforcement to structural concrete work:</u>		
11	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.02
	<u>Fabric reinforcement:</u>		
12	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	21
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Type SM3 + 3UR			
Bill No. 2			
Concrete, Formwork and Reinforcement			
PREPARED BY : NYELETI CONSULTING (PTY) LTD			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BUILDER'S WORK</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Hollow walls etc</u></b>			
	Descriptions of hollow walls shall be deemed to include leaving fifth perpend of the bottom course of the external skin open as a weep hole.			
	Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.			
	User note: The above preamble generally applies for works in ho and humid coastal areas			
	<b><u>Face Bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b>Carried Forward</b>		R	
	Section No. 4 Type SM3 + 3UR Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
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Brought Forward			R
<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>			
4	Half brickwork for face brick walls pointed both sides	m2	18
5	One brickwork for face brick walls pointed both sides	m2	54
6	Extra over brickwork for face brickwork in beamfilling	m2	6
7	Fair raking and cutting	m	10
<b><u>Brick-on-edge header course copings, sills, etc of (purchase price R 5 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces:</u></b>			
8	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 11 Omm soffit	m	6
9	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	6
10	Fair raking cutting and fitting around pipe not exceeding 100mm diameter.	No	3
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Joint forming material in movement joints:</u></b>			
11	12mm Fibre board built in vertically through brick walls	m	10
<b><u>2.5mm Brickwork reinforcement</u></b>			
12	75mm Wide reinforcement built in horizontally	m	215
13	150mm Wide reinforcement built in horizontally	m	490
Carried Forward			R
Section No. 4 Type SM3 + 3UR Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS ETC</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Klip-Lok" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:</u></b>			
1	Roof coverings with pitch not exceeding 25 degrees	m2	35	
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>"Sisalation 405" or similar approved residential grade aluminium foil based insulation:</u></b>			
2	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	21	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>Aluzink seamless metal gutters:</u></b>			
3	100 x 100 x 0.6mm standard rainwater gutters	m	7	
4	Extra over eaves gutter for closed ends	No	2	
	<b>Carried Forward</b>			
	Section No. 4 Type SM3 + 3UR Bill No. 5 Roof Coverings <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		R	

CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
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	Brought Forward			R
5	75 x 100 x 0.6mm Thick galvanised rainwater downpipes	m	5	
6	Extra over rainwater pipe for eaves offset.	No	2	
7	Ditto,for shoe.	No	2	
Carried Forward to Summary of Section No. 4				R
Section No. 4				
Type SM3 + 3UR				
Bill No. 5				
Roof Coverings				
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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>SANITARY FITTINGS</u></b>			
	<u>"Vaal" or similar approved</u>			
1	"Daisy Elite" 772403 close-coupled WC suite comprising pan with double flap heavy duty thermoset seat (Code: 8531Z0) and matching 9 litre cistern	No	3	
	<u>"Vaal"</u>			
2	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code : 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 8448Z0).	No	2	
3	Flat back urinal overall size 295 x 315 x 415mm high with 40mm chromium plated domical grating (Code 878720 ) and top inlet spreader (Code 8543) with two hanger brackets with flushmaster junior (Code 812720) hung to wall	No	3	
	<b><u>WASTE UNIONS ETC</u></b>			
	<u>"Cobra Watertech"</u>			
4	38mm "Cobra 316" unslotted waste and plug with chain	No	2	
	<b><u>TRAPS ETC</u></b>			
	<b>Carried Forward</b>		R	
	Section No. 4 Type SM3 + 3UR Bill No. 10 Plumbing and Drainage (Provisional) <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE**  
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	Brought Forward			R
	<u>"Marley"</u>			
5	40mm Flexi butyl rubber trap with reseal "P" trap	No	2	
	<b><u>TAPS, VALVES, ETC</u></b>			
	<u>"Cobra Watertech"</u>			
6	19mm chrome plated push button tap	No	4	
7	15mm Code 232/350 FCP angle regulating valve and flexible connection pip	No	5	
8	15mm 128 CP Star underwall pattern stopcock.	No	2	
	<b><u>SANITARY PLUMBING</u></b>			
	<u>uPVC pipes</u>			
9	50mm Pipe	m	7	
10	110mm Pipes	m	15	
11	50mm Pipes laid in and including trenches not exceeding 1m deep	m	6	
12	Ditto, but 110mm diameter	m	2	
	<u>Extra over uPVC pipes for fittings</u>			
13	50mm Bend	No	5	
14	50mm Junction	No	5	
15	50mm Junction with cleaning eye and lid	No	5	
16	110mm Straight pan connector	No	3	
17	50mm "GI Two-way" vent valve	No	3	
18	110mm Bend	No	3	
	<b>Carried Forward</b>			R
	Section No. 4			
	Type SM3 + 3UR			
	Bill No. 10			
	Plumbing and Drainage (Provisional)			
	<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE**  
**DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward			R
19	110mm Junction	No	3	
20	110mm Reducing Junction	No	2	
21	110mm Access bend	No	3	
22	110mm Double Junction	No	1	
23	110mm "GI Two-way" vent valve	No	3	
	<u>Sundries</u>			
24	Testing waste pipe system		Item	
	<b><u>WATER SUPPLIES</u></b>			
	<u>Class 1 copper pipes with capillary couplings:</u>			
25	15mm Pipe fixed to walls, in chases, etc	m	40	
26	Ditto, but 22mm diameter	m	20	
	<u>Extra over Class 1 copper pipes for capillary fittings:</u>			
27	15mm Fittings	No	10	
28	22mm Fittings	No	5	
	<b><u>Brass</u></b>			
29	15mm Fullway gate valve	No	1	
	<u>Sundries</u>			
30	Testing water pipe system		Item	
<b>Carried Forward to Summary of Section No. 4</b>				R
Section No. 4				
Type SM3 + 3UR				
Bill No. 10				
Plumbing and Drainage (Provisional)				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION No.4</u></b>			
	<b><u>BILL No.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>SITE CLEARANCE, ETC.</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	66	
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	66	
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep</u></b>			
3	Reduced levels under floors	m3	20	
4	Trenches	m3	13	
5	Trenches and holes for thickening under surface beds,	m3	14	
	<b><u>Extra over trench and hole excavations in earth for excavation:</u></b>			
6	Soft rock	m3	1	
7	Hard rock	m3	1	
	<b><u>Extra over all excavations for 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	m3	8	
	<b>Carried Forward</b>		R	
	Section No. 5 Type SFD4 Bill No. 1 Earthworks <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Risk of collapse of excavations</u></b>			
9	Sides of trench and hole excavations not exceeding 1,5m deep	m2	38
<b><u>Keeping excavations free of water</u></b>			
10	Keeping excavations free of all water other than subterranean water	Item	
<b><u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u></b>			
11	Backfilling to trenches, holes, etc	m3	5
<b><u>Approved G5 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density</u></b>			
12	Under floors, steps, paving etc.	m3	5
<b><u>Compaction of surfaces</u></b>			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	20
<b><u>Prescribed density tests on filling</u></b>			
14	"Modified AASHTO Density" test	No	4
<b><u>SOIL POISONING</u></b>			
<b><u>Soil insecticide in accordance with SANS 5859:</u></b>			
15	Soil insecticide (protection against termites) applied as specified under floors, etc including forming and poisoning shallow furrows against foundation walls, etc filling in furrows and ramming	m2	20
16	To bottoms and sides of trenches etc	m2	59
<b>Carried Forward to Summary of Section No. 5</b>			R
Section No. 5			
Type SFD4			
Bill No. 1			
Earthworks			
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>UNREINFORCED CONCRETE,ETC</u></b>			
	<b><u>25MPa/19mm concrete</u></b>			
1	Surface blinding under footings and bases	m3	1	
2	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavations, backfilling and etc.	m	14	
	<b><u>REINFORCED CONCRETE</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
3	Surface beds cast in panels on waterproofing.	m3	2	
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
4	Strip footings	m3	5	
	<b><u>TEST BLOCKS</u></b>			
5	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4	
	<b>Carried Forward</b>			
	Section No. 5 Type SFD4 Bill No. 2 Concrete, Formwork and Reinforcement <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		R	

Brought Forward			R
	<u>Finishing top surfaces of concrete smooth with a steel trowel.</u>		
6	Surface beds, slabs, etc	m2	20
	<b><u>FORMWORK</u></b>		
	<u>Rough formwork to sides</u>		
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	10
	<b><u>MOVEMENT JOINTS ETC</u></b>		
	<u>Expansion joints with 10mm softboard between vertical concrete and brick surfaces:</u>		
8	Not exceeding 300mm high to edges of surface beds	m	5
	<u>Saw cut joints</u>		
9	Saw cut joints in top of concrete (Provisional)	m	5
	<b><u>REINFORCEMENT</u></b>		
	<u>Mild steel reinforcement to structural concrete work:</u>		
10	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.40
	<u>High tensile steel reinforcement to structural concrete work:</u>		
11	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.10
	<u>Fabric reinforcement:</u>		
12	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	20
Carried Forward to Summary of Section No. 5			R
Section No. 5			
Type SFD4			
Bill No. 2			
Concrete, Formwork and Reinforcement			
PREPARED BY : NYELETI CONSULTING (PTY) LTD			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BUILDER'S WORK</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Hollow walls etc</u></b>			
	Descriptions of hollow walls shall be deemed to include leaving fifth perpend of the bottom course of the external skin open as a weep hole.			
	Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.			
	User note: The above preamble generally applies for works in ho and humid coastal areas			
	<b><u>Face Bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b>Carried Forward</b>		R	
	Section No. 5 Type SFD4 Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward				R
<b><u>Pointing</u></b>				
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
<b><u>SAMPLES</u></b>				
Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site				
<b><u>FOUNDATIONS</u></b>				
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar</u></b>				
1	One brick walls	m2	20	
<b><u>FACE BRICKWORK</u></b>				
<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>				
2	Extra over brickwork for face brickwork in foundation	m2	10	
<b><u>Brickwork reinforcement</u></b>				
3	150mm Wide reinforcement built in horizontally	m	178	
<b><u>SUPERSTRUCTURE</u></b>				
<b><u>FACE BRICKWORK</u></b>				
Carried Forward				R
Section No. 5 Type SFD4 Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>			
4	Half brickwork for face brick walls pointed both sides	m2	23
5	One brickwork for face brick walls pointed both sides	m2	82
6	Extra over brickwork for face brickwork in beamfilling	m2	7
7	Fair raking and cutting	m	10
<b><u>Brick-on-edge header course copings, sills, etc of (purchase price R 5 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces:</u></b>			
8	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 11 Omm soffit	m	6
9	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	6
10	Fair raking cutting and fitting around pipe not exceeding 100mm diameter.	No	5
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Joint forming material in movement joints:</u></b>			
11	12mm Fibre board built in vertically through brick walls	m	3
<b><u>2.5mm Brickwork reinforcement</u></b>			
12	75mm Wide reinforcement built in horizontally	m	266
13	150mm Wide reinforcement built in horizontally	m	738
Carried Forward			R
Section No. 5 Type SFD4 Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS ETC</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Klip-Lok" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:</u></b>			
1	Roof coverings with pitch not exceeding 25 degrees	m2	36	
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>"Sisalation 405" or similar approved residential grade aluminium foil based insulation:</u></b>			
2	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	24	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>Aluzink seamless metal gutters:</u></b>			
3	100 x 100 x 0.6mm standard rainwater gutters	m	7	
4	Extra over eaves gutter for closed ends	No	2	
	<b>Carried Forward</b>		R	
	Section No. 5 Type SFD4 Bill No. 5 Roof Coverings <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

<b>Brought Forward</b>			R
<u>Wrought meranti doors hung to steel frames:</u>			
6	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard	No	1
7	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding including 150mm undercut.	No	4
8	44mm Framed batten door 914 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard.	No	1
<b>Carried Forward to Summary of Section No. 5</b>			R
Section No. 5			
Type SFD4			
Bill No. 6			
Carpentry and Joinery			
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 7</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>CATCHES, CABIN HOOKS, ETC</u></b>			
	<b><u>"Approved"</u></b>			
1	150mm chrome cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	2	
	<b><u>LOCKS</u></b>			
	<b><u>"Union Assa Abloy" or similar approved:</u></b>			
2	50mm Brass padlock	No	2	
3	Four lever lockset	No	2	
4	"Ref. CZ80941SC" Indicator bolt	No	4	
	<b><u>HANDLES</u></b>			
	<b><u>"Union Assa Abloy" or similar approved:</u></b>			
5	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres	Pairs	2.0	
	<b><u>BOLTS, DOOR CLOSER, FLOOR SPRING, ETC.</u></b>			
6	"Dorma" TS73N/EN3-4 parallel arm door closer delayed closing-push side fitting.	No	1	
	<b>Carried Forward</b>			
	Section No. 5 Type SFD4 Bill No. 7 Ironmongery <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		R	

Brought Forward			R
<b><u>PUSH PLATES AND KICK PLATES</u></b>			
<b><u>"Union Assa Abloy" or similar approved</u></b>			
<b><u>1.2mm Thick satin finished "Union" stainless steel plates countersunk screwed along edges at not exceeding 200mm centre</u></b>			
7	200 x 914mm Type "SS5089-200W" kicking plate	No	1
<b><u>LETTERS, NAMEPLATES, ETC</u></b>			
<b><u>"Dorma" or similar approved</u></b>			
8	DSS-130 Engraved "Female" information sign	No	1
9	DSS-131 Engraved "Disabled" information sign	No	1
<b><u>SUNDRIES</u></b>			
10	25mm Diameter wall mounted door stop plugged	No	6
<b><u>BATHROOM FITTINGS</u></b>			
<b><u>"Vaal Paragon" or similar approved</u></b>			
11	32mm Type 9 back grab rail 800mm long plugged around toilet cistern and 740mm high above floor level and in accordance with SANS 10400-S.	No	1
12	32mm Type 8 side grab rail 900mm girth plugged 380mm away from the wall (toilet pan and cistern position) and 740mm high above floor level and in accordance with SANS 10400-S.	No	1
<b><u>Kimberley-Clark or Similar:</u></b>			
13	Kimberly-Clark SQ2 code 405607B white lockable toilet roll holder	No	5
Carried Forward			R
Section No. 5 Type SFD4 Bill No. 7 Ironmongery <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE**  
**DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION. 4</u></b>			
	<b><u>BILL NO. 8</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>STEEL GATES, SCREENS, ETC</u></b>			
	<b><u>Welded screens and gates, to brickwalls:</u></b>			
1	Single gate and frame size to fit standard door, size 813 x 2032mm high	No	1	
2	Single gate and frame size to fit standard door, size 914 x 2032mm high	No	1	
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<b><u>1,6mm Double rebated frames suitable for half brick walls:</u></b>			
3	Frame for door 813 x 2032mm high	No	4	
	<b><u>1,6mm Double rebated frames suitable for one brick walls:</u></b>			
4	Frame for door 813 x 2032mm high	No	1	
5	Frame for door 914 x 2032mm high	No	1	
	<b><u>STEEL WINDOWS, DOORS, ETC</u></b>			
	<b><u>Standard windows</u></b>			
6	Window type NE1, 533 x 654mm high with burglar bars	No	5	
	<b>Carried Forward</b>		R	
	Section No. 5 Type SFD4 Bill No. 8 Metalwork <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>SANITARY FITTINGS</u></b>			
	<u>"Vaal" or similar approved</u>			
1	"Daisy Elite" 772403 close-coupled WC suite comprising pan with double flap heavy duty thermoset seat (Code: 8531Z0) and matching 9 litre cistern	No	4	
	<u>"Vaal"</u>			
2	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code : 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two (product code 8448Z0) 10mm bolts. Disabled wash hand basin's position to be 250mm away from toilet pan and 650mm high above floor level in accordance with SANS-10400-S.	No	4	
3	Vaal Protea Paraplegic floor mounted washdown suite ( <b>Code 750200</b> ) comprising 90 degree outlet pan and matching 9 litre cistern ( <b>Code 710631</b> ) complete with purpose made chromium plated side flushing lever mounted on wall adjacent to cistern including lid, fittings and heavy duty toilet seat. System to be fixed 450mm from the corner to the centre of cistern, flushing lever and toilet pan to be 600mm high and 480mm high above floor level respectively in accordance with SANS 10400-S.	No	1	
	<b>Carried Forward</b>		R	
	Section No. 5 Type SFD4 Bill No. 10 Plumbing and Drainage (Provisional) <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward			R
	<b><u>WASTE UNIONS ETC</u></b>			
	<u>"Cobra Watertech"</u>			
4	38mm "Cobra 316" unslotted waste and plug with chain	No	4	
	<b><u>TRAPS ETC</u></b>			
	<u>"Marley"</u>			
5	40mm Flexi butyl rubber trap with reseal "P" trap	No	4	
	<b><u>TAPS, VALVES, ETC</u></b>			
	<u>"Cobra Watertech"</u>			
6	19mm chrome plated push button tap	No	6	
7	15mm Code 232/350 FCP angle regulating valve and flexible connection pip	No	9	
8	Cobra Watertech 15mm chrome plated hi-waste elbow action pillartap with blue indicator for cold water (Code: 504-21B), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No	1	
9	15mm 128 CP Star underwall pattern stopcock.	No	2	
	<b><u>SANITARY PLUMBING</u></b>			
	<u>uPVC pipes</u>			
10	50mm Pipe	m	18	
11	110mm Pipes	m	22	
12	50mm Pipes laid in and including trenches not exceeding 1m deep	m	5	
13	Ditto, but 110mm diameter	m	3	
	<b>Carried Forward</b>			R
	Section No. 5 Type SFD4 Bill No. 10 Plumbing and Drainage (Provisional) <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward		R
	<u>Extra over uPVC pipes for fittings</u>		
14	50mm Bend	No	9
15	50mm Junction	No	9
16	50mm Junction with cleaning eye and lid	No	5
17	110mm Straight pan connector	No	5
18	50mm "GI Two-way" vent valve	No	5
19	110mm Bend	No	9
20	110mm Junction	No	9
21	110mm Reducing Junction	No	1
22	110mm Access bend	No	5
23	110mm Double Junction	No	13
24	110mm "GI Two-way" vent valve	No	5
	<u>Sundries</u>		
25	Testing waste pipe system	Item	
	<b><u>WATER SUPPLIES</u></b>		
	<u>Class 1 copper pipes with capillary couplings:</u>		
26	15mm Pipe fixed to walls, in chases, etc	m	45
27	Ditto, but 22mm diameter	m	20
	<u>Extra over Class 1 copper pipes for capillary fittings:</u>		
28	15mm Fittings	No	10
29	22mm Fittings	No	12
	<b>Carried Forward</b>		R
	Section No. 5 Type SFD4 Bill No. 10 Plumbing and Drainage (Provisional) <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION No.5</u></b>			
	<b><u>BILL No.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>SITE CLEARANCE, ETC.</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	60	
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	60	
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep</u></b>			
3	Reduced levels under floors	m3	18	
4	Reduced levels under aprons	m3	12	
5	Trenches	m3	6	
6	Holes	m3	15	
7	Trenches and holes for thickening under surface beds,	m3	11	
	<b><u>Extra over trench and hole excavations in earth for excavation:</u></b>			
8	Soft rock	m3	2	
9	Hard rock	m3	2	
	<b>Carried Forward</b>		R	
	Section No. 6 Type M4+8UR Bill No. 1 Earthworks <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>			<b>R</b>	
	<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	m3	25		
	<b><u>Risk of collapse of excavations</u></b>				
11	Sides of trench and hole excavations not exceeding 1,5m deep	m2	41		
	<b><u>Keeping excavations free of water</u></b>				
12	Keeping excavations free of all water other than subterranean water		Item		
	<b><u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u></b>				
13	Backfilling to trenches, holes, etc	m3	2		
	<b><u>Approved G5 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density</u></b>				
14	Under floors, steps, paving etc.	m3	4		
	<b><u>Compaction of surfaces</u></b>				
15	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	13		
16	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	6		
	<b>Carried Forward</b>			<b>R</b>	
	Section No. 6 Type M4+8UR Bill No. 1 Earthworks <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward			R
17	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	31	
	<b><u>Prescribed density tests on filling</u></b>			
18	"Modified AASHTO Density" test	No	3	
	<b><u>SOIL POISONING</u></b>			
	<b><u>Soil insecticide in accordance with SANS 5859:</u></b>			
19	Soil insecticide (protection against termites) applied as specified under floors, etc including forming and poisoning shallow furrows against foundation walls, etc filling in furrows and ramming	m2	13	
20	To bottom of concrete aprons	m2	31	
21	To bottoms and sides of trenches etc	m2	27	
22	To bottoms and sides of pit etc	m2	35	
<b>Carried Forward to Summary of Section No. 6</b>				R
Section No. 6				
Type M4+8UR				
Bill No. 1				
Earthworks				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.5</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>UNREINFORCED CONCRETE,ETC</u></b>			
	<b><u>25MPa/19mm concrete</u></b>			
1	Surface blinding under footings and bases	m3	2	
2	Aprons cast in panels	m3	3	
3	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavations, backfilling and etc.	m	11	
4	Thickening down apron on edge 110mm deep x 200mm wide.	m	26	
	<b><u>REINFORCED CONCRETE</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
5	Surface beds cast in panels on waterproofing.	m3	2	
6	Ditto, but surface bed in pit	m3	3	
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
7	Strip footings	m3	2	
	<b>Carried Forward</b>		R	
	Section No. 6 Type M4+8UR Bill No. 2 Concrete, Formwork and Reinforcement <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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Brought Forward			R
<b><u>Mild steel reinforcement to structural concrete work:</u></b>			
15	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.19
<b><u>High tensile steel reinforcement to structural concrete work:</u></b>			
16	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.05
<b><u>Fabric reinforcement:</u></b>			
17	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	13
18	Mesh ref type 193 fabric reinforcement fixed horizontal in surface beds pits.	m2	6
<b>Carried Forward to Summary of Section No. 6</b>			R
Section No. 6			
Type M4+8UR			
Bill No. 2			
Concrete, Formwork and Reinforcement			
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 5</u></b>			
	<b><u>BUILDER'S WORK</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Hollow walls etc</u></b>			
	Descriptions of hollow walls shall be deemed to include leaving fifth perpend of the bottom course of the external skin open as a weep hole.			
	Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.			
	User note: The above preamble generally applies for works in ho and humid coastal areas			
	<b><u>Face Bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b>Carried Forward</b>		R	
	Section No. 6 Type M4+8UR Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

Brought Forward			R
<b><u>Pointing</u></b>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<b><u>SAMPLES</u></b>			
Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site			
<b><u>FOUNDATIONS</u></b>			
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar</u></b>			
1	One brick walls	m2	8
2	One brick walls in pit.	m2	25
3	Half brick corbelling in pit.	m	21
<b><u>FACE BRICKWORK</u></b>			
<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>			
4	Extra over brickwork for face brickwork in foundation	m2	10
<b><u>Brickwork reinforcement</u></b>			
5	150mm Wide reinforcement built in horizontally	m	402
<b><u>SUPERSTRUCTURE</u></b>			
<b><u>FACE BRICKWORK</u></b>			
Carried Forward			R
Section No. 6 Type M4+8UR Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>			
6	Half brickwork for face brick walls pointed both sides	m2	18
7	One brickwork for face brick walls pointed both sides	m2	54
8	Extra over brickwork for face brickwork in beamfilling	m2	6
9	Fair raking and cutting	m	10
<b><u>Brick-on-edge header course copings, sills, etc of (purchase price R 5 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces:</u></b>			
10	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 11 Omm soffit	m	6
11	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	6
12	Fair raking cutting and fitting around pipe not exceeding 100mm diameter.	No	4
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Joint forming material in movement joints:</u></b>			
13	12mm Fibre board built in vertically through brick walls	m	5
<b><u>2.5mm Brickwork reinforcement</u></b>			
14	75mm Wide reinforcement built in horizontally	m	221
15	150mm Wide reinforcement built in horizontally	m	490
Carried Forward			R
Section No. 6 Type M4+8UR Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>			<b>R</b>
	<b><u>Galvanised wire ties etc</u></b>			
16	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	18	
	<b><u>Prestressed fabricated concrete lintels, including necessary temporary supports:</u></b>			
17	110 x 75mm Double Lintels in lengths exceeding 3m but not exceeding 4.5m long	m	3	
	<b><u>Ventilation bricks</u></b>			
18	Set of two 22 x 155mm high terra cotta clay vermin proof air bric	No	6	
<b>Carried Forward to Summary of Section No. 6</b>				<b>R</b>
Section No. 6				
Type M4+8UR				
Bill No. 3				
Masonry				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 5</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS ETC</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Klip-Tite" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:</u></b>			
1	Roof coverings with pitch not exceeding 25 degrees	m2	35	
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>0,58mm "Klip-Lok" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:</u></b>			
2	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	21	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>Aluzink seamless metal gutters:</u></b>			
3	100 x 100 x 0.6mm standard rainwater gutters	m	7	
	<b>Carried Forward</b>		R	
	Section No. 6 Type M4+8UR Bill No. 5 Roof Coverings <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

<b>Brought Forward</b>				R
<u>Wrought meranti doors hung to steel frames:</u>				
6	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard.	No	1	
7	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding including 150mm undercut.	No	4	
<b>Carried Forward to Summary of Section No. 6</b>				R
Section No. 6				
Type M4+8UR				
Bill No. 6				
Carpentry and Joinery				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 5</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>SANITARY FITTINGS</u></b>			
	<u>Supply and Install "Enviroloo systems" or similar approved</u>			
1	"Enviro Loo System 1040 Standard" installed strictly in accordance with manufacturers instructions, unit comprising of top unit and two x louvered inlets (PL.1), drying plate (PL.2), two x air inlets (PL.3), toilet pan, seat and lid (PL.4), 3500mm long outlet vent pipe (PL.5), ventilation extraction unit (PL.6) fixed to wall with vent wall bracket (PL.7), 1 bag mounting screws and organic starter, enzyme and toilet cleaner (PL.8) including all necessary inter connector piping between multiple tanks, emergency outlet piping,etc.	No	4	
2	"Enviro Loo 4- Bowl Urinal Evaporative Tank System " installed strictly in accordance with manufacturers instructions, unit comprising of urinal evaporative tank, urinal bowl (4 Bowls), including brackets, 3500mm long outlet vent pipe, ventilation extraction unit fixed to wall with vent wall bracket, 1 bag mounting screws and organic starter, enzyme and toilet cleaner including all necessary piping, traps, etc.	No	2	
	<b>Carried Forward</b>		R	
	Section No. 6 Type M4+8UR Bill No. 10 Plumbing and Drainage (Provisional) <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

<b>Brought Forward</b>				R
<u>Supply and Install Precast concrete wash trough:</u>				
3	Standard SABS approved Pre-Cast Concrete Double Wash Trough, 1080 x 650 x 850mm high with support legs fitted, including all necessary pipework including soak away approximately 10 meters away from the wash trough, sized at 1000 x 1000 x 1000mm covered with "bidim" complete etc.	No	1	
<b><u>BUDGETARY ALLOWANCES</u></b>				
<u>INSPECTION BY "ENVIRO LOO"/SUPPLIER:</u>				
4	Allow an amount of R 8000.00 ( Eight Thousand Rand Only) for the two site visits to be made by the "enviroo loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed correctly at which time a Certificate of Compliance should be issued between Mvula Trust/Limpopo Department of Education and Enviro Loo Options Limpopo.		Item	
5	Profit and attendance for the above		Item	
<b><u>TAPS, VALVES, ETC</u></b>				
<u>"Cobra Watertech"</u>				
6	19mm chrome plated push button taps to wash trough	No	2	
<b>Carried Forward to Summary of Section No. 6</b>				R
Section No. 6				
Type M4+8UR				
Bill No. 10				
Plumbing and Drainage (Provisional)				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				



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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION No.6</u></b>			
	<b><u>BILL No.1</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>SITE CLEARANCE, ETC.</u></b>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	172	
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	172	
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep</u></b>			
3	Reduced levels under floors	m3	52	
4	Reduced levels under aprons	m3	23	
5	Trenches	m3	16	
6	Holes	m3	75	
7	Trenches and holes for thickening under surface beds,	m3	30	
	<b><u>Extra over trench and hole excavations in earth for excavation:</u></b>			
8	Soft rock	m3	9	
9	Hard rock	m3	4	
	<b>Carried Forward</b>		R	
	Section No. 7 Type F8 and FD4 Bill No. 1 Earthworks <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<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	m3	71
<b><u>Risk of collapse of excavations</u></b>			
11	Sides of trench and hole excavations not exceeding 1,5m deep	m2	111
<b><u>Keeping excavations free of water</u></b>			
12	Keeping excavations free of all water other than subterranean water	Item	
<b><u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u></b>			
13	Backfilling to trenches, holes, etc	m3	24
<b><u>Approved G5 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density</u></b>			
14	Under floors, steps, paving etc.	m3	8
<b><u>Compaction of surfaces</u></b>			
15	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	39
16	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	45
Carried Forward			R
Section No. 7 Type F8 and FD4 Bill No. 1 Earthworks <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>			<b>R</b>
17	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	64	
	<b><u>Prescribed density tests on filling</u></b>			
18	"Modified AASHTO Density" test	No	8	
	<b><u>SOIL POISONING</u></b>			
	<b><u>Soil insecticide in accordance with SANS 5859:</u></b>			
19	Soil insecticide (protection against termites) applied as specified under floors, etc including forming and poisoning shallow furrows against foundation walls, etc filling in furrows and ramming	m2	39	
20	To bottom of concrete aprons	m2	64	
21	To bottoms and sides of trenches etc	m2	59	
22	To bottoms and sides of pit etc	m2	118	
<b>Carried Forward to Summary of Section No. 7</b>				<b>R</b>
Section No. 7				
Type F8 and FD4				
Bill No. 1				
Earthworks				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.6</u></b>			
	<b><u>BILL NO.2</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>UNREINFORCED CONCRETE,ETC</u></b>			
	<b><u>25MPa/19mm concrete</u></b>			
1	Surface blinding under footings and bases	m3	4	
2	Aprons cast in panels	m3	7	
3	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavations, backfilling and etc.	m	30	
4	Thickening down apron on edge 110mm deep x 200mm wide.	m	58	
	<b><u>REINFORCED CONCRETE</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
5	Surface beds cast in panels on waterproofing.	m3	7	
6	Ditto, but surface bed in pit	m3	9	
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<b><u>30MPa/19mm concrete</u></b>			
7	Strip footings	m3	7	
	<b>Carried Forward</b>			
	Section No. 7 Type F8 and FD4 Bill No. 2 Concrete, Formwork and Reinforcement <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		R	



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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE**  
**DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Mild steel reinforcement to structural concrete work:</u></b>			
15	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.10
<b><u>High tensile steel reinforcement to structural concrete work:</u></b>			
16	Mild steel bar reinforcement (8 to 40mm diameter bars)	t	0.39
<b><u>Fabric reinforcement:</u></b>			
17	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	70
18	Mesh ref type 193 fabric reinforcement fixed horizontal in surface beds pits.	m2	30
<b>Carried Forward to Summary of Section No. 7</b>			R
Section No. 7			
Type F8 and FD4			
Bill No. 2			
Concrete, Formwork and Reinforcement			
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 6</u></b>			
	<b><u>BUILDER'S WORK</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Hollow walls etc</u></b>			
	Descriptions of hollow walls shall be deemed to include leaving fifth perpend of the bottom course of the external skin open as a weep hole.			
	Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.			
	User note: The above preamble generally applies for works in ho and humid coastal areas			
	<b><u>Face Bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b>Carried Forward</b>		R	
	Section No. 7 Type F8 and FD4 Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Pointing</u></b>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<b><u>SAMPLES</u></b>			
Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site			
<b><u>FOUNDATIONS</u></b>			
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar</u></b>			
1	One brick walls	m2	20
2	One brick walls in pit.	m2	90
3	Half brick corbelling in pit.	m	73
<b><u>FACE BRICKWORK</u></b>			
<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>			
4	Extra over brickwork for face brickwork in foundation	m2	22
<b><u>Brickwork reinforcement</u></b>			
5	150mm Wide reinforcement built in horizontally	m	1 154
<b><u>SUPERSTRUCTURE</u></b>			
<b><u>FACE BRICKWORK</u></b>			
Carried Forward			R
Section No. 7 Type F8 and FD4 Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>			
6	Half brickwork for face brick walls pointed both sides	m2	45
7	One brickwork for face brick walls pointed both sides	m2	127
8	Extra over brickwork for face brickwork in beamfilling	m2	13
9	Fair raking and cutting	m	20
<b><u>Brick-on-edge header course copings, sills, etc of (purchase price R 5 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces:</u></b>			
10	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 11 Omm soffit	m	14
11	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	14
12	Fair raking cutting and fitting around pipe not exceeding 100mm diameter.	No	13
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Joint forming material in movement joints:</u></b>			
13	12mm Fibre board built in vertically through brick walls	m	12
<b><u>2.5mm Brickwork reinforcement</u></b>			
14	75mm Wide reinforcement built in horizontally	m	598
15	150mm Wide reinforcement built in horizontally	m	1 143
Carried Forward			R
Section No. 7 Type F8 and FD4 Bill No. 3 Masonry <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>			<b>R</b>
	<b><u>Galvanised wire ties etc</u></b>			
16	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	34	
	<b><u>Prestressed fabricated concrete lintels, including necessary temporary supports:</u></b>			
17	110 x 75mm Double Lintels in lengths exceeding 3m but not exceeding 4.5m long	m	4	
18	110 x 75mm Double Lintels in lengths exceeding 7.5m but not exceeding 9m long	m	8	
19	110 x 75mm Double Lintels in lengths exceeding 10.5m but not exceeding 12m long	m	12	
	<b><u>Ventilation bricks</u></b>			
20	Set of two 22 x 155mm high terra cotta clay vermin proof air bric	No	13	
<b>Carried Forward to Summary of Section No. 7</b>				<b>R</b>
Section No. 7				
Type F8 and FD4				
Bill No. 3				
Masonry				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 6</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS ETC</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,58mm "Klip-Lok" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:</u></b>			
1	Roof coverings with pitch not exceeding 25 degrees	m2	73	
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>"Sisalation 405" or similar approved residential grade aluminium foil based insulation:</u></b>			
2	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	56	
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>Aluzink seamless metal gutters:</u></b>			
3	100 x 100 x 0.6mm standard rainwater gutters	m	15	
4	Extra over eaves gutter for closed ends	No	4	
	<b>Carried Forward</b>		R	
	Section No. 7 Type F8 and FD4 Bill No. 5 Roof Coverings <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			



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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

<b>Brought Forward</b>				R
<u>Wrought meranti doors hung to steel frames:</u>				
6	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard.	No	3	
7	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding including 150mm undercut.	No	12	
8	44mm Framed batten door 914 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard.	No	1	
<b>Carried Forward to Summary of Section No. 7</b>				R
Section No. 7				
Type F8 and FD4				
Bill No. 6				
Carpentry and Joinery				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE**  
**DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 6</u></b>			
	<b><u>BILL NO. 7</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Specifications of materials and methods to used - PW 371"			
	<b><u>CATCHES, CABIN HOOKS, ETC</u></b>			
	<b><u>"Approved"</u></b>			
1	150mm chrome cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	4	
	<b><u>LOCKS</u></b>			
	<b><u>"Union Assa Abloy" or similar approved:</u></b>			
2	50mm Brass padlock	No	4	
3	Four lever lockset	No	4	
4	"Ref. CZ80941SC" Indicator bolt	No	12	
	<b><u>HANDLES</u></b>			
	<b><u>"Union Assa Abloy" or similar approved:</u></b>			
5	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres	Pairs	4.0	
	<b><u>BOLTS, DOOR CLOSER, FLOOR SPRING, ETC.</u></b>			
6	"Dorma" TS73N/EN3-4 parallel arm door closer delayed closing-push side fitting.	No	1	
	<b>Carried Forward</b>		R	
	Section No. 7 Type F8 and FD4 Bill No. 7 Ironmongery <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>PUSH PLATES AND KICK PLATES</u></b>			
<b><u>"Union Assa Abloy" or similar approved</u></b>			
<b><u>1.2mm Thick satin finished "Union" stainless steel plates countersunk screwed along edges at not exceeding 200mm centre</u></b>			
7	200 x 900mm Type "SS5089-200W" kicking plate	No	1
<b><u>LETTERS, NAMEPLATES, ETC</u></b>			
<b><u>"Dorma" or similar approved</u></b>			
8	DSS-130 Engraved "Female" information sign	No	2
9	DSS-131 Engraved "Disabled" information sign	No	1
<b><u>SUNDRIES</u></b>			
10	25mm Diameter wall mounted door stop plugged	No	17
<b><u>BATHROOM FITTINGS</u></b>			
<b><u>"Vaal Paragon" or similar approved</u></b>			
11	32mm Type 9 back grab rail 800mm long plugged around toilet cistern and 740mm high above floor level and in accordance with SANS 10400-S.	No	1
12	32mm Type 8 side grab rail 900mm girth plugged 380mm away from the wall (toilet pan and cistern position) and 740mm high above floor level and in accordance with SANS 10400-S.	No	1
<b><u>Kimberley-Clark or Similar:</u></b>			
13	Kimberly-Clark SQ2 code 405607B white lockable toilet roll holder	No	13
Carried Forward			R
Section No. 7 Type F8 and FD4 Bill No. 7 Ironmongery <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL

	Brought Forward			R
14	Brushed stainless steel body, rust resistant, she bin, approximately 330 x 280 x 180mm et	No	13	
Carried Forward to Summary of Section No. 7				R
Section No. 7				
Type F8 and FD4				
Bill No. 7				
Ironmongery				
PREPARED BY : NYELETI CONSULTING (PTY) LTD				

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE**  
**DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No			Quantity	Rate	Amount
	<b><u>SECTION. 6</u></b>				
	<b><u>BILL NO. 8</u></b>				
	<b><u>METALWORK</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	For preambles see "Specifications of materials and methods to used - PW 371"				
	<b><u>STEEL GATES, SCREENS, ETC</u></b>				
	<b><u>Welded screens and gates, to brickwalls:</u></b>				
1	Single gate and frame size to fit standard door, size 813 x 2032mm high	No	3		
2	Single gate and frame size to fit standard door, size 914 x 2032mm high	No	1		
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>				
	<b><u>1,6mm Double rebated frames suitable for half brick walls:</u></b>				
3	Frame for door 813 x 2032mm high	No	12		
	<b><u>1,6mm Double rebated frames suitable for one brick walls:</u></b>				
4	Frame for door 813 x 2032mm high	No	3		
5	Frame for door 914 x 2032mm high	No	1		
	<b><u>STEEL WINDOWS, DOORS, ETC</u></b>				
	<b><u>Standard windows</u></b>				
6	Window type NE1, 533 x 654mm high with burglar bars	No	13		
	<b>Carried Forward</b>			R	
	Section No. 7 Type F8 and FD4 Bill No. 8 Metalwork <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<u>INSPECTION BY "ENVIRO LOO"/SUPPLIER:</u>			
3	Allow an amount of R 8000.00 ( Eight Thousand Rand Only) for the two site visits to be made by the "enviroo loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed correctly at which time a Certificate of Compliance should be issued between Mvula Trust/Limpopo Department of Education and Enviro Loo Options Limpopo.	Item	
4	Profit and attendance for the above	Item	
<u>"Vaal"</u>			
5	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code : 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 8448Z0).	No	1
<b><u>TAPS, VALVES, ETC</u></b>			
<u>"Cobra Watertech"</u>			
6	Cobra Watertech 15mm chrome plated hi-waste elbow action pillartap with blue indicator for cold water (Code: 504-21B), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No	1
7	15mm 128 CP Star underwall pattern stopcock.	No	1
<b><u>SANITARY PLUMBING</u></b>			
<u>uPVC pipes</u>			
8	50mm Pipe	m	8
9	110mm Pipes	m	5
<u>Extra over uPVC pipes for fittings</u>			
10	50mm Bend	No	2
Carried Forward			R
Section No. 7 Type F8 and FD4 Bill No. 10 Plumbing and Drainage (Provisional) <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE**  
**DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward			R
11	50mm Junction	No	2	
12	50mm Junction with cleaning eye and lid	No	2	
13	50mm "GI Two-way" vent valve	No	1	
	<u>Sundries</u>			
14	Testing waste pipe system		Item	
	<b><u>WATER SUPPLIES</u></b>			
	<u>Class 1 copper pipes with capillary couplings:</u>			
15	15mm Pipe fixed to walls, in chases, etc	m	15	
16	Ditto, but 22mm diameter	m	10	
	<u>Extra over Class 1 copper pipes for capillary fittings:</u>			
17	15mm Fittings	No	5	
18	22mm Fittings	No	8	
	<b><u>Brass</u></b>			
19	15mm Fullway gate valve	No	1	
	<u>Sundries</u>			
20	Testing water pipe system		Item	
	<b><u>FITTINGS</u></b>			
21	19mm chrome plated push button taps to wash trough	No	8	
<b>Carried Forward to Summary of Section No. 7</b>				R
Section No. 7				
Type F8 and FD4				
Bill No. 10				
Plumbing and Drainage (Provisional)				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Compaction of surfaces</u></b>			
4	Rip and re-compact in-situ materials to a depth of 150mm, breaking down over size material and reconsolidate to 93% modified AASHTO density	m2	330
<b><u>Extra over all excavations for carting away</u></b>			
5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	125
<b><u>Keeping excavations free of water</u></b>			
6	Keeping excavations free of all water other than subterranean water	Item	
<b><u>C4 filling supplied and carted on by the Contractor, stabilised with 2.5% OPC cement compacted in layers not exceeding 150mm to 97% Mod. AASHTO density</u></b>			
7	Subbase under roads	m3	50
<b><u>Earth filling from imported sources supplied by the Contractor under parking areas, roadways, etc:</u></b>			
8	Sub-base course of G7 material compacted to 93% Mod AASHTO density	m3	50
9	Base course stabilised G7 material with CEM II 32.5 BV compacted to 97% Mod AASHTO density	m3	51
<b><u>Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l and atrisien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m2:</u></b>			
10	Under paving, etc	m2	330
<b><u>Pavers</u></b>			
<b><u>INTERLOCKING CONCRETE PAVING</u></b>			
Carried Forward			R
Section No. 8 Externalworks Bill No. 1 Walkway <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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		Brought Forward			R
		<u>25MPa/19mm reinforced concrete:</u>			
7	Ramps	m3	1		
		<u>CONCRETE SUNDRIES</u>			
		<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
8	Surface beds, slabs, etc to falls	m2	10		
		<u>TEST BLOCKS</u>			
9	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	2		
		<u>FORMWORK</u>			
		<u>Rough formwork to sides</u>			
10	Sloping outer edges of ramps approximately 450mm high extreme	m	7		
		<u>REINFORCEMENT</u>			
		<u>Mild steel reinforcement to structural concrete work:</u>			
		<u>Fabric reinforcement:</u>			
11	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	10		
		<u>BRICKWORK</u>			
		<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar</u>			
12	One brick walls	m2	12		
		<u>FACE BRICKWORK</u>			
		Carried Forward			R
	Section No. 8				
	Externalworks				
	Bill No. 2				
	Ramps				
	PREPARED BY : NYELETI CONSULTING (PTY) LTD				

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Item No		Quantity	Rate	Amount
	<b><u>SECTION No.7</u></b>			
	<b><u>BILL No.4</u></b>			
	<b><u>WATER RETICULATION</u></b>			
	<b><u>PIPES</u></b>			
	<b><u>Supply, lay, bed, test, disinfect flanged pipes complete with couplings for Class 16 mild steel pipes of the following diameter: (All material including fittings to be SABS approved)</u></b>			
1	65 mm diameter	m	180	
2	80 mm diameter	m	82	
	<b><u>Supply, handle, lay, disinfect, bed in flexible pipe bedding and test uPVC class 16 pipes complete with spigot and socket joints.(All material including fittings to be SABS approved)</u></b>			
3	75 mm diamete	m	12	
4	90 mm diameter	m	12	
	<b><u>PREFABRICATED STEEL TANK:</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SITE CLEARANCE, ETC.</u></b>			
5	Remove topsoil to nominal depth 150mm, stockpile and maintain	m2	25	
	<b><u>BULK EXCAVATION - TANK BASE</u></b>			
	<b><u>b) Extra-over for</u></b>			
6	Intermediate excavation	m3	3	
7	Hard rock excavation	m3	5	
	<b>Carried Forward</b>			
	Section No. 8			
	Externalworks			
	Bill No. 4			
	Water Reticulation			
	<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			
			R	



**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>			<b>R</b>
	<b><u>RESTRICTED EXCAVATIONS</u></b>			
8	Excavate for restricted foundations, footings and trenches in all materials and use for backfill or embankment or dispose.	m3	25	
	<b><u>G7 filling material supplied by the contractor, compacted to 95% Mod AASHTO density:</u></b>			
	<b><u>EARTHWORKS (ROADS, SUBGRADE)</u></b>			
9	Rip and re-compact insitu to 90% MOD AASHTO	m3	1	
10	Geotechnical grid (Traix TX170)	m2	1	
11	Backfill 500mm with course insitu material in 150mm layers	m3	5	
	<b><u>TANK</u></b>			
12	Supply, handle, install, erect hot dipped galvanised Prefabricated steel tank. 4,88m length x 3.66m width x 3.66m deep (65KL). Including lockable access manhole with built-in screened vent. Internal and external ladder, a level indicator, as well as all fittings required for installation. And the supply, handling, installation, and erection of hot dipped galvanised steel support structures 6m high, including an access ladder with safety cage. As well as all standard fittings required for installation and walkway around tank base with rails	No	1	
	<b><u>CONCRETE</u></b>			
	<b><u>Finishing top surfaces of concrete smooth with a steel trowel</u></b>			
13	Binding layer in 15MPa concrete (50mm thick)	m3	1	
14	Strength of concrete grade 30/19	m3	23	
15	Shutter rough	m2	25	
	<b>Carried Forward</b>			<b>R</b>
	Section No. 8 Externalworks Bill No. 4 Water Reticulation <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward				R
<b><u>22.5 degree Bends</u></b>				
26	75mm	No	1	
27	90mm	No	1	
<b><u>45 degree Bends</u></b>				
28	75mm	No	1	
29	90mm	No	1	
<b><u>Flange adaptors</u></b>				
30	110mm	No	4	
<b><u>Extra over Item 8.2.1 for supplying, fixing and bedding of valves; Class 16:</u></b>				
<b><u>Viking Johnson/Klamflex flanged adaptors PN 16</u></b>				
31	100mm	No	2	
32	ND100 AVK Dismantling joint PN16 or similar approved	No	4	
33	ND100 flanged cosmos Meinecke WPD bulk meter with digital output or similar approved; Class 16	No	1	
34	ND100 flanged Bermad 70F Y-Pattern strainer or similar approved; Class 16	No	2	
35	ND100 flanged ball valve; Class 16	No	1	
36	Steel Plinths	No	4	
37	DN25 automatic air release valve, Vent O Mat or similar approved brand as per inlet chamber detail; Class 25	No	2	
38	ND25 brass fullway gate valve to sabs 776 Class 10	No	2	
39	ND25 galvanised barrel nipple PN16	No	2	
<b>Carried Forward</b>				R
Section No. 8 Externalworks Bill No. 4 Water Reticulation <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>			<b>R</b>	
40	ND100 In line tee with outlet diameter as specified in the nodal descriptions and reduced to 25bsp female end connection PN16	No	2		
41	ND100 mm, 150mm long double flanged pipe, PN 16 to SANS standard	No	2		
42	ND100 mm, 600mm long double flanged pipe, PN 16 to SANS standard	No	2		
43	ND100 flanged Vosa Series 7354 Equilibrium float valve or similar approved; Class 16	No	1		
44	DN100 flanged mild steel flanged sweep tee; flanges drilled according to SANS 1123 table 16	No	1		
45	DN100 Blank flange with 20 mm hole drilled onto it and 25 mm nipple welded onto it; nipple to be male threaded on one end.	No	1		
46	DN25 Female threaded ball valve, PN16	No	1		
47	DN25 Nipple, one end male and one end female threaded	No	1		
48	DN25 automatic air release valve, Vent O Mat or similar approved brand as per tank inlet detail; Class 25	No	1		
49	ND100 mm, 240mm long double flanged pipe, PN 16 to SANS standard	No	1		
50	ND150 mild steel pipe, PN 16, 6m long, one end flanged as per detail drawing 14491-D-C-WAT-D05, actual length of pipe to be confirmed on site confirmed on site	No	1		
	<b><u>Isolating valves</u></b>				
	<b><u>Extra-over item 6.13 for the supplying, installing cutting in and testing flanged Class 16 anti-clockwise closing non rising spindle resilient seal gate valves for steel pipes as shown on detailed drawings for pipe diameters</u></b>				
51	100 mm diameter	No	5		
	<b>Carried Forward</b>			<b>R</b>	
	Section No. 8 Externalworks Bill No. 4 Water Reticulation <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION No.7</u></b>			
	<b><u>BILL No.5</u></b>			
	<b><u>RAIN WATER HAVERST</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep:</u></b>			
1	Trenches	m3	11	
	<b><u>Extra over all excavations for carting away</u></b>			
2	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	6	
	<b><u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u></b>			
3	Backfilling to trenches, holes, etc	m3	3	
4	Under floors, steps, pavings, et	m3	2	
	<b><u>Compaction of surfaces</u></b>			
5	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 91% Mod AASHTO density	m2	11	
	<b><u>Prescribed density tests on filling</u></b>			
6	"Modified AASHTO Density" test	No	2	
	<b><u>Soil insecticide in accordance with SANS 5859:</u></b>			
7	Soil insecticide (protection against termites) applied as specified to bottoms and sides of trenches, etc including forming and poisoning shallow furrows against foundation walls, etc filling in furrows and ramming	m2	11	
	<b>Carried Forward</b>			
	Section No. 8			
	Externalworks			
	Bill No. 5			
	Rainwater Harvest			
	<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward			R
	<b><u>Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:</u></b>			
14	Extra over brickwork for face brickwork in ramps	m2	23	
	<b><u>BRICKWORK SUNDRIES</u></b>			
	<b><u>2,5mm Brickwork reinforcement</u></b>			
15	150mm Wide reinforcement built in horizontally	m	207	
	<b><u>RAIN WATER TANK</u></b>			
16	5000 Litre plastic JoJo tank complete with fixing lugs and lid, fitted with and including 15mm brass bibtap with handle suitable for padlocking and setting in position on concrete plinth (elsewhere measured) and tying down with 4mm diameter wire wapped twice around centre of tank and secured to each corner of tank with double strand of 4mm diameter galvanised wire embedded into concrete.	No	5.00	
<b>Carried Forward to Summary of Section No. 8</b>				R
Section No. 8				
Externalworks				
Bill No. 5				
Rainwater Harvest				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				



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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Item No		Quantity	Rate	Amount
	<b><u>SECTION No.7</u></b>			
	<b><u>BILL No.8</u></b>			
	<b><u>SEWER RETICULATION</u></b>			
	<b><u>PIPES</u></b>			
1	110mm uPVC Pipes laid in and including trenches not exceeding 1m deep	m	35	
2	110mm uPVC Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	25	
3	160mm uPVC Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	201	
4	Extra over uPVC piping for 110mm bend	No	5	
5	Extra over uPVC piping for 110mm junction	No	20	
6	Extra over uPVC piping for 110mm stop end	No	10	
7	110mm uPVC cleaning eye fixed to 110mm uPVC drain pipe, including 350 x 350 x 75mm thick in-situ 15 MPa/19mm mass concrete surround, the whole finished smooth on all exposed faces with exposed angles rounded, including all necessary excavations, formwork, backfilling, etc	No	2	
	<b><u>SEPTIC TANK:</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>Excavation in earth not exceeding 4m deep:</u></b>			
8	Septic Tank	m3	140	
	<b><u>Extra over trench and hole excavations in earth for excavation:</u></b>			
9	Soft rock	m3	14	
	<b>Carried Forward</b>			
	Section No. 8 Externalworks Bill No. 8 Sewer Reticulation <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>		R	

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**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	Brought Forward			R
	<b><u>15MPa/19mm concrete</u></b>			
18	Surface blinding under footings and bases	m3	15	
	<b><u>25MPa/19mm reinforced concrete:</u></b>			
19	Mass concrete to bottoms	m3	20	
20	Slabs	m3	15	
	<b><u>TEST BLOCKS</u></b>			
21	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4	
	<b><u>FORMWORK</u></b>			
	<b><u>Rough formwork to sides</u></b>			
22	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	25	
	<b><u>REINFORCEMENT</u></b>			
	<b><u>Mild and High Tensile steel reinforcement to structural concrete work:</u></b>			
23	All Diameter bar	t	3.00	
	<b><u>BRICKWORK</u></b>			
	<b><u>Brickwork of NFP bricks in class II mortar</u></b>			
24	One brick walls	m2	70	
25	Half brick walls	m2	17	
	<b><u>BRICKWORK SUNDRIES:</u></b>			
	<b><u>2.5mm Brickwork reinforcement</u></b>			
26	75mm Wide reinforcement built in horizontally	m	44	
	Carried Forward			R
	Section No. 8 Externalworks Bill No. 8 Sewer Reticulation <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			

**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

	<b>Brought Forward</b>			<b>R</b>
27	150mm Wide reinforcement built in horizontally	m	206	
	<u>Bagging of 1:3 cement and sand mixture</u>			
28	Outer face of external brick wall	m2	350	
	<u>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u>			
29	Under surface beds	m2	50	
	<b><u>INTERNAL PLASTER</u></b>			
	<u>Cement plaster on brickwork:</u>			
30	On walls	m2	88	
	<b><u>SPECIAL FLOOR COATING</u></b>			
	<u>Minimum two coats approved epoxy coat</u>			
31	On screed	m2	50	
32	On walls in pit	m2	88	
<b>Carried Forward to Summary of Section No. 8</b>				<b>R</b>
Section No. 8				
Externalworks				
Bill No. 8				
Sewer Reticulation				
<b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>				

Item No		Quantity	Rate	Amount
	<b><u>SECTION No.7</u></b>			
	<b><u>BILL No.9</u></b>			
	<b><u>STORMWATER MANAGEMENT</u></b>			
	<b><u>For preambles see "Specifications of materials and methods to be used - PW 371"</u></b>			
	<b><u>Earthworks</u></b>			
	<b><u>EARTHWORKS</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep:</u></b>			
1	Stormwater	m3	35	
	<b><u>Extra over trench and hole excavations in earth for excavation:</u></b>			
2	Soft rock	m3	4	
3	Hard rock	m3	2	
	<b><u>Extra over all excavations for carting away</u></b>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	35	
	<b><u>Keeping excavations free of water</u></b>			
5	Keeping excavations free of all water other than subterranean water		Item	
	<b><u>Compaction of surfaces</u></b>			
6	Compaction of ground surface under stormwater, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO densit	m2	116	
	<b>Carried Forward</b>		R	
	Section No. 8 Externalworks Bill No. 9 Stormwater Management <b>PREPARED BY : NYELETI CONSULTING (PTY) LTD</b>			



**CONSTRUCTION OF WATER AND SANITATION INFRASTRUCTURE  
DAVID MUTSHINYALO SECONDARY SCHOOL**

Brought Forward			R
<b><u>Prescribed density tests on filling</u></b>			
7	"Modified AASHTO Density" test	No	1
<b><u>SOIL POISONING</u></b>			
<b><u>Soil insecticide in accordance with SANS 5859:</u></b>			
8	Soil insecticide (protection against termites) applied as specified under floors, etc including forming and poisoning shallow furrows against foundation walls, etc filling in furrows and ramming	m2	248
<b><u>CONCRETE WORKS ,ETC</u></b>			
9	25Mpa/19mm Mass concrete in V-shaped channel 700mm wide x 75mm thick cast in 2 000mm intervals with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, with and including one layer of ref.193 mesh reinforcement, laid to falls in panels not exceeding 2,0m long with 12mm bitumen impregnated soft board movement joints with exposed edges raked out for a depth of 10mm and filled with bituminous compound including all necessary excavations, form work, backfilling, clearing, levelling and etc.	m	165
10	Extra for fair open end	No	5
11	Extra for fair stopped end	No	5
12	Extra for angle intersection	No	5
<b><u>TEST BLOCKS</u></b>			
13	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	8
<b><u>CONCRETE SUNDRIES</u></b>			
Carried Forward			R
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