

THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | Quantity | Rate | Amount |
|---|----------|------|--------|
| <u>SECTION 1</u> | | | |
| <u>BILL NO. 1</u> | | | |
| <u>PRELIMINARIES</u> | | | |
| <u>BUILDING AGREEMENT AND PRELIMINARIES</u> | | | |
| <p>The JBCC Series 2000 Edition 4.1 Code 2101 March 2005 2005 edition prepared by the Joint Building Contracts Committee, shall be the agreement, amended as hereinafter described</p> <p>The Preliminaries for use with the JBCC Series 2000 Principal Building Agreement (May 2005 edition) prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated in these bills of quantities</p> <p>Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof</p> <p>These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the above-mentioned documents</p> <p>Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"</p> <p>Notwithstanding anything to the contrary contained in any of the contract documents including the Principal Building Agreement and the Preliminaries, the provision of the "Preliminaries" as hereinafter set forth shall prevail and shall take precedence</p> | | | |
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| | <p style="text-align: right;">Brought Forward</p> <p><u>PREAMBLES FOR TRADES</u></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><u>GENERAL</u></p> <p>If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories "F", "T" or "V" as the case may be below such item, where "F" denotes a fixed amount (amount not to be varied), "T" denotes an amount variable in proportion to time and "V" denotes an amount variable in proportion to value</p> <p><u>SECTION A - PRINCIPAL BUILDING AGREEMENT</u></p> <p><u>Definitions (A1)</u></p> <p>1 Definitions and interpretation (clause 1)</p> <p>F:..... V:..... T:.....</p> | | R | |
| | <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 PRELIMINARIES & GENERALS KUTLO CONSULTING ENGINEERS</p> | Item | R | |

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| <u>Objective and Preparation (A2 to A14)</u> | | | |
| 2 | Offer acceptance and performance (clause 2) | | |
| | F:..... V:..... T:..... | Item | |
| 3 | Documents (clause 3) | | |
| | F:..... V:..... T:..... | Item | |
| 4 | Design responsibility (clause 4) | | |
| | F:..... V:..... T:..... | Item | |
| 5 | Employer's agents (clause 5) | | |
| | F:..... V:..... T:..... | Item | |
| The principal agent shall: | | | |
| - monitor and control progress and scheduling | | | |
| - monitor all contract conditions, and | | | |
| - coordinate the efforts of the employer's agents, the contractor and subcontractors | | | |
| The powers conferred on the principal agent in terms of this clause and/or the exercising of these powers shall not be construed as removing or diminishing any of the obligations of the Contractor in terms of the Principal Building Agreement, whether financial, contractual or otherwise, nor shall the exercising of these powers create any privity of contract as between the Employer or his agents on the one part and the Contractor or subcontractors or suppliers on the other part | | | |
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| | 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 | | |
| 6 | Site representative (clause 6) | | |
| | F:..... V:..... T:..... | Item | |
| 7 | Compliance with regulations (clause 7) | | |
| | F:..... V:..... T:..... | Item | |
| 8 | Works risk (clause 8) | | |
| | F:..... V:..... T:..... | Item | |
| 9 | Indemnities (clause 9) | | |
| | F:..... V:..... T:..... | Item | |
| 10 | Works insurances (clause 10) | | |
| | F:..... V:..... T:..... | Item | |
| 11 | Liability insurances (clause 11) | | |
| | F:..... V:..... T:..... | Item | |
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| 23 | Contractor's Domestic Sub-Contractors (Clause 23) | | |
| | F:..... V:..... T:..... | Item | |
| <u>Completion (A24-A30)</u> | | | |
| 24 | Practical completion (clause 24) | | |
| | F:..... V:..... T:..... | Item | |
| 25 | Works completion (clause 25) | | |
| | F:..... V:..... T:..... | Item | |
| 26 | Final completion (clause 26) | | |
| | F:..... V:..... T:..... | Item | |
| 27 | Latent defects liability period (clause 27) | | |
| | F:..... V:..... T:..... | Item | |
| 28 | Sectional completion (clause 28) | | |
| | F:..... V:..... T:..... | Item | |
| 29 | Revision of date of practical completion (clause 29) | | |
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| | 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) | | |
| 30 | Penalty for non-completion (clause 30) | | |
| | F:..... V:..... T:..... | Item | |
| | <u>Payment (A31 - A35)</u> | | |
| 31 | Interim payment to the contractor (clause 31) | | |
| | F:..... V:..... T:..... | Item | |
| 32 | Adjustment to the contract value (clause 32) | | |
| | F:..... V:..... T:..... | Item | |
| | 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 | | |
| 33 | Recovery of expense and loss (clause 33) | | |
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| 34 | Final account and final payment (clause 34) | | |
| | F:..... V:..... T:..... | Item | |
| | The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion | | |
| | The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account | | |
| 35 | Payment to other parties (clause 35) | | |
| | F:..... V:..... T:..... | Item | |
| | <u>Cancellation (A36-A39)</u> | | |
| 36 | Cancellation by employer - contractor's default (clause 36) | | |
| | F:..... V:..... T:..... | Item | |
| 37 | Cancellation by employer - loss and damage (clause 37) | | |
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| 38 | Cancellation by contractor - employer's default (clause 38) F:..... V:..... T:..... | Item | |
| 39 | Cancellation - cessation of the works (clause 39) F:..... V:..... T:..... | Item | |
| <u>Dispute (A40)</u> | | | |
| 40 | Dispute Settlement (clause 40) F:..... V:..... T:..... | Item | |
| <u>Substitute Provisions (A41)</u> | | | |
| 41 | State clauses (Clause 41) F:..... V:..... T:..... Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder | Item | |
| <u>THE SCHEDULE</u> Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder | | | |
| 42 | Pre-tender information (clause 42) F:..... V:..... T:..... | Item | |
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| <u>42.1 CONTRACTING AND OTHER PARTIES</u> | | | |
| 42.1.1 Employer: As per information on the tender data | | | |
| 42.1.2 Principal Agent: As per the information on the Tender data | | | |
| 42.1.3 Architect: Afro Architectural | | | |
| 42.1.4 Quantity Surveyor: | | | |
| Structural : | | | |
| 42.1.5 Civil: | | | |
| 42.1.6 Electrical Engineer: | | | |
| 42.1.6 Mechanical Engineer: | | | |
| <u>42.2 CONTRACT DETAILS</u> | | | |
| 42.2.1 Works Description: Construction of sanitation facilities | | | |
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| 42.2.2 Site Description: as per the information on the tender data | |
| 42.2.3 Work or installations by direct contractors: N/A | |
| 42.2.4 This agreement is for a government contract where there are specific options that are applicable to a State organ only Yes | |
| 42.2.5 Date on which possession of the site is intended to be given: UNKNOWN | |
| 42.2.6 Period for the commencement of the works after the contractor takes possession | |
| 42.2.7 For the works as a whole . Intended date of practical completion and the penalty per calendar day | |
| 3 months after contractual commencement date <i>Date</i> | |
| <i>Penalty Amount</i> <i>The penalty shall be 7.5c per R100 per calendar day of the tendered amount (inclusive of value added tax)</i> | |
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| <p style="text-align: right;">Brought Forward</p> <p>42.2.8 For the works in sections: Intended date of practical completion and the penalty per calender day</p> <p style="text-align: right;">Section 1 .N/A..... <i>Date</i></p> <p style="text-align: right;">R.N/A..... <i>Penalty Amount</i></p> <p>42.2.9 The law applicable to this agreement shall be that of</p> <p style="text-align: right;"><i>South Africa (country)</i></p> <p><u>42.3 INSURANCES</u></p> <p>42.3.1 Contract works insurance to be effected by:</p> <p style="text-align: right;"><i>Contractor:</i></p> <p style="text-align: right;"><i>For the Sum of R Contract Amount + 20.00 %</i></p> <p style="text-align: right;"><i>With a deductible of - to be determined by the contractor</i></p> <p>42.3.2 Supplementary insurance is required</p> <p style="text-align: right;"><i>No</i></p> <p>42.3.3 Public liability insurance to be effected by:</p> <p style="text-align: right;"><i>Contractor:</i></p> <p style="text-align: right;"><i>For the Sum of R 2 500 000-00</i></p> <p style="text-align: right;"><i>With a deductible of - to be determined by the contractor</i></p> <p><u>42.4 DOCUMENTS</u></p> <p>42.4.1 Waivers of contractors lien or right of continuing possession is required</p> <p style="text-align: right;"><i>Yes</i></p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 PRELIMINARIES & GENERALS KUTLO CONSULTING ENGINEERS</p> | <p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p> |
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| | 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 working days | | |
| | <i>The priced bills of quantities must be handed in with the tender</i> | | |
| | 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 Month N/A | | |
| | 42.4.7 Details of changes made to the provision of JBCC standard documentation: | | |
| | <u>SECTION B: PRELIMINARIES</u> | | |
| | <u>Definitions and interpretation (B1)</u> | | |
| 43 | Definition and interpretation (B1.1 - B1.4.6) | | |
| | F:..... V:..... | | |
| | T:..... | Item | |
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| <u>Documents (B2)</u> | | | |
| 44 | Checking of documents (B2.1) | | |
| | F:..... V:..... T:..... | Item | |
| 45 | Provisional bills of quantities (B2.2) | | |
| | F:..... V:..... T:..... | N/A | |
| 46 | Availability of construction documentation (B2.3) | | |
| | F:..... V:..... T:..... | Item | |
| 47 | Interests of agents (B2.4) | | |
| | F:..... V:..... T:..... | Item | |
| 48 | Priced documents (B2.5) | | |
| | F:..... V:..... T:..... | Item | |
| 49 | Tender submission (B2.6) | | |
| | F:..... V:..... T:..... | Item | |
| 50 | Defined works area (B3.1) | | |
| | F:..... V:..... T:..... | Item | |
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| | <u>The site (B3)</u> | | | |
| 51 | Geotechnical investigation (B3.2) | | | |
| | F:..... V:..... T:..... | Item | | |
| 52 | Inspection of the site (B3.3) | | | |
| | F:..... V:..... T:..... | Item | | |
| | Existing premises occupied (B3.4) | | | |
| | F:..... V:..... T:..... | | | |
| | Previous work - dimensional accuracy (B3.5) | | | |
| | F:..... V:..... T:..... | | | |
| | Previous work - defects (B3.6) | | | |
| | F:..... V:..... T:..... | | | |
| 53 | Services - known (B3.7) | | | |
| | F:..... V:..... T:..... | Item | | |
| 54 | Services - unknown (B3.8) | | | |
| | F:..... V:..... T:..... | Item | | |
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| 55 | Protection of trees etc (B3.9) | | |
| | F:..... V:..... T:..... | Item | |
| 56 | Articles of value (B3.10) | | |
| | F:..... V:..... T:..... | Item | |
| | <u>Management of contract (B4)</u> | | |
| 57 | Inspection of adjoining properties etc (B3.11) | | |
| | F:..... V:..... T:..... | Item | |
| 58 | Management of the works (B4.1) | | |
| | F:..... V:..... T:..... | Item | |
| 59 | Programme for the works (B4.2) | | |
| | F:..... V:..... T:..... | Item | |
| 60 | Progress meetings (B4.3) | | |
| | F:..... V:..... T:..... | Item | |
| 61 | Technical meetings (B4.4) | | |
| | F:..... V:..... T:..... | Item | |
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| 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 | | | |
| 12.1.12 Enclosure of the works (B6.2) | | | |
| 12.1.11 Inspection of adjoining properties (B3.11) | | | |
| 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 | | | |
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| 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 | |
| <u>Post tender information (B12.2)</u> | |
| 12.2.1 Payment of preliminaries Alternative selected: B | |
| 12.2.2 Adjustment of preliminaries Alternative selected: A | |
| 12.2.3 Additional agreed preliminaries items N/A | |
| <u>SECTION C: SPECIFIC PRELIMINARIES</u> | |
| Any special items to meet the particular circumstances of a specific project are embodied in this section. Where required for an aspect of the works to be executed according to a design by a consulting engineer, a recital of the headings to the individual clauses of the JBCC Engineering General Conditions are included | |
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| 98 | Site instructions 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 F: :..... V:..... T:..... | Item | | R | |
| 99 | Black economic empowerment and training F:..... V:..... T:..... | Item | | | |
| 100 | Proprietary branded products F:..... V:..... T:..... | Item | | | |
| 101 | Testing of flat roof waterproofing for watertightness Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least 36 hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing F:..... V:..... T:..... 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 | Item | | | |
| 102 | Contract instructions F:..... V:..... T:..... | Item | | | |
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| | <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> | | | |
| 106 | <p>Overtime</p> <p>F:..... V:..... T:.....</p> <p>Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> | Item | | |
| 107 | <p>Co-operation of contractor for cost management</p> <p>F:..... V:..... T:.....</p> | Item | | |
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| | <p>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</p> | | |
| 108 | <p>Occupational Health and Safety Specification</p> <p>F:..... V:..... T:.....</p> <p>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</p> <p><u>SUMMARY OF CATEGORIES</u></p> <p>Category : Fixed R.....</p> <p>Category : Value R.....</p> <p>Category : Time R.....</p> | Item | |
| | Carried to Final Summary | | R |
| | <p>Section No. 1 Bill No. 1 PRELIMINARIES & GENERALS KUTLO CONSULTING ENGINEERS</p> | | |

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THE MVULA TRUST
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EUREKA PRIMARY SCHOOL

| Brought Forward | | | | R |
|---|---|----|-----|---|
| <u>Breaking down and removing brickwork etc</u> | | | | |
| 4 | Mass Brickwork | m3 | 1 | |
| <u>Hacking up/off and removing ceramic tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes</u> | | | | |
| 5 | 200 x 200mm Tiles to walls | m2 | 4 | |
| <u>Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screeds, plaster, etc</u> | | | | |
| 6 | 35mm Screed from floors | m2 | 105 | |
| <u>Taking out and removing glass and mirrors</u> | | | | |
| 7 | Glass from steel windows including cleaning out rebates and preparing for new glass | m2 | 2 | |
| <u>Taking out and removing piping, sanitary fittings, etc, including disconnecting piping from fittings and making good floor and wall finishes (making good paintwork elsewhere)</u> | | | | |
| 8 | Wash hand basin | No | 8 | |
| 9 | WC pan with cistern | No | 20 | |
| 10 | Stainless steel wall urinal size 2000 x 1400mm | No | 8 | |
| <u>Making good internal cement plaster</u> | | | | |
| 11 | Walls in patches | m2 | 49 | |
| <u>Take out and remove fence</u> | | | | |
| 12 | Take out and remove fence including poles | m | 150 | |
| Carried Forward to Summary of Section No. 2 | | | | R |
| Section No. 2 | | | | |
| Bill No. 1 | | | | |
| ALTERATIONS AND DEMOLITIONS | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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THE MVULA TRUST
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EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO. 3</u> | | | |
| | <u>BILL NO. 10</u> | | | |
| | <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>FITTINGS</u> | | | |
| | <u>White glazed fireclay or vitreous china coupling with SABS specification 497 in</u> | | | |
| 1 | Vaal semi close suite with 90 degree wash down pan (code VAA-772402WH) and matching vandal proof 6 litre Hibiscus cistern complete with front flush push button, lid, fitments and heavy duty solid white double flap toilet seat | No | 20 | |
| 2 | "Flatback" wall urinal with spreader and waste union including approved urinal flush valve | No | 8 | |
| 3 | Vaal "Pearl Paraplegic" semi close couple boxed suite with 90 degree washdown pan (code VAA-730103WH) and matching vandal proof 6 litre purpose made cistern complete with side-flush lever and purpose made urea seat, lid, fitments and heavy duty solid white double flap toilet seat, including F14C cranked rail and F16C cistern rail. | No | 1 | |
| 4 | "Vaal hibiscus" wash hand basin bolted to wall including all fittings and necessary pipework | No | 8 | |
| | <u>WASTE UNIONS, ETC.</u> | | | |
| 5 | 32 mm Chromium plated basin waste union | No | 8 | |
| | Carried Forward | | R | |
| | Section No. 2 Bill No. 4 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|--|----|-----|---|
| <u>TRAPS, ETC.</u> | | | | |
| 6 | 40 x 50mm Rubber butyl deep seal "P" or "S" trap | No | 8 | |
| <u>TAPS, VALVES, ETC.</u> | | | | |
| <u>"Cobra Watertech" or other equal approved</u> | | | | |
| 7 | 15mm elbow action tap plugged | No | 24 | |
| 8 | 15mm gate valve plugged | No | 28 | |
| <u>SANITARY PLUMBING</u> | | | | |
| <u>uPVC Pipes</u> | | | | |
| 9 | 50mm Pipes | m | 101 | |
| 10 | 50mm Pipes laid in and including trenches under floors | m | 48 | |
| <u>Extra over uPVC pipes for fittings</u> | | | | |
| 11 | 50mm Bend | No | 36 | |
| 12 | 50mm IE Bend | No | 28 | |
| 13 | 50mm Vent valve | No | 17 | |
| 14 | 110mm Access bend | No | 33 | |
| 15 | 110mm Junction | No | 18 | |
| 16 | 100mm Access junction | No | 17 | |
| 17 | 110mm Reducing junction | No | 18 | |
| 18 | 110mm GI two way vent valve | No | 20 | |
| 19 | 110mm IE bend | No | 4 | |
| Carried Forward | | | | R |
| Section No. 2 Bill No. 4 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | | |

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| | Brought Forward | | | R |
|--|---|----|------|---|
| 20 | 110mm Pan connector | No | 28 | |
| | <u>TESTING:</u> | | | |
| 21 | Testing waste pipe system | | Item | |
| | <u>WATER SUPPLIES</u> | | | |
| | <u>HDPE pressure pipes class 12:</u> | | | |
| 22 | 25mm Pipes laid in and including trenches not exceeding 1m deep | m | 114 | |
| 23 | 35mm Pipes laid in and including trenches not exceeding 1m deep | m | 38 | |
| | <u>Extra over HDPE pressure pipes for "plascon" fittings:</u> | | | |
| 24 | 25mm Copper elbow adaptor | No | 9 | |
| 25 | 35mm Copper elbow adaptor | No | 9 | |
| | <u>CLASS O copper pipes:</u> | | | |
| 26 | 15mm Pipes | m | 105 | |
| 27 | 22mm Pipes | m | 85 | |
| | <u>Extra over class O copper pipes for capillary fittings:</u> | | | |
| 28 | 15mm Fittings | No | 22 | |
| 29 | 22mm Fittings | No | 22 | |
| | <u>TESTING:</u> | | | |
| 30 | Testing water pipe system | | Item | |
| Carried Forward to Summary of Section No. 2 | | | | R |
| Section No. 2 | | | | |
| Bill No. 4 | | | | |
| PLUMBING AND DRAINAGE | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.2</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 65 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 65 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 7 | |
| 4 | Pit | m3 | 14 | |
| 5 | For aprons thickening | m3 | 2 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 6 | Soft rock | m3 | 1 | |
| 7 | Hard rock | m3 | 1 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 18 | |
| | Carried Forward | | R | |
| | Section No. 3 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|--|--|----|------|
| | <u>Risk of collapse of excavations</u> | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 36 |
| | <u>Keeping excavations free of water.</u> | | |
| 10 | Keeping excavations free of water other than subterranean water | | Item |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 8 |
| 12 | Backfilling to trenches, holes, etc. | m3 | 7 |
| | <u>Compaction of surfaces</u> | | |
| 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 | 25 |
| 14 | 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 | 4 |
| 15 | 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 | 23 |
| | <u>Prescribed density tests on filling</u> | | |
| 16 | Modified AASHTO Density tests | No | 4 |
| Carried Forward | | | R |
| Section No. 3 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|--|--|----|----------|
| <u>SOIL POISONING</u> | | | |
| <u>Soil insecticide</u> | | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 25 |
| 18 | To bottom of concrete aprons | m2 | 13 |
| 19 | To bottoms and sides of trenches, etc. | m2 | 20 |
| Carried Forward to Summary of Section No. 3 | | | R |
| Section No. 3 | | | |
| Bill No. 1 | | | |
| EARTHWORKS | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|----|
| <u>TEST CUBES</u> | | | |
| 8 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 3 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 9 | Surface beds, slabs, etc. | m2 | 23 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 10 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 19 |
| | <u>Permanent formwork to soffits:</u> | | |
| 11 | Slabs propped up not exceeding 1.5m high | m2 | 6 |
| 12 | Leave or form 500mm diameter opening in top of floor slab | No | 2 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 13 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 23 |
| Carried Forward to Summary of Section No. 3 | | | R |
| Section No. 3 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.4</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 3 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 7 |
| 2 | One brick walls in pit | m2 | 10 |
| 3 | Half brick corbelling in pit | m | 5 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 3 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 7 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 19 |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 3 |
| 8 | Fair raking and cutting | m | 11 |
| Carried Forward | | | R |
| Section No. 3 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|-----|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 5 |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 4 |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 4 |
| <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 66 |
| 13 | 150mm Wide reinforcement built in horizontally | m | 275 |
| | <u>Turning pieces</u> | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 2 |
| | <u>Galvanised wire ties etc</u> | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 12 |
| | <u>Prestressed fabricated lintels</u> | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 9 |
| | <u>Ventillation bricks</u> | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 4 |
| Carried Forward to Summary of Section No. 3 | | | R |
| Section No. 3 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.6</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 22 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 22 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 7 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 2 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 2 | |
| 7 | Ditto ,for shoe | No | 2 | |
| | Carried Forward to Summary of Section No. 3 | | | |
| | Section No. 3 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1883mm 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 (door raised by 120mm from bottom) (D2) | No | 1 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 3 | | | | R |
| Section No. 3 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO. 11</u> | | | |
| | <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ENVIRO-LOO TOILET SYSTEMS</u> | | | |
| 1 | Supply and Install "Enviro-Loo" Industrial 1040 Model complete, installed strictly in accordance with manufacturers instructions, unit comprising of top unit and two x louvred inlets , drying plate , two x air inlets, standard toilet pan, seat and lid, 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 inter connector piping between multiple tanks, emergency outlet piping,etc | No | 2 | |
| 2 | Supply and Erect "Enviro-loo" "Industrial 1040 Model,2-bowl Urinal Evaporative Tank system fixed complete as per manufacturers specification unit, comprising of urinal evaporative tank , urinal 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 | 1 | |
| | <u>SOIL DRAINAGE</u> | | | |
| | <u>Normal duty (Class 51) uPVC sewer and drain pipes</u> | | | |
| 3 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 10 | |
| | Carried Forward | | R | |
| | Section No. 3 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|---|
| <u>Extra over normal duty (Class 51) uPVC sewer and drain pipes for fittings</u> | | | |
| 4 | 110mm Bend | No | 2 |
| 5 | 110mm Junction | No | 2 |
| <u>uPVC gulleys</u> | | | |
| 6 | 110mm Dished gully trap assembly with head, grid and concrete surround not exceeding 750mm deep | No | 3 |
| <u>SANITARY FITTINGS</u> | | | |
| 7 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 1 |
| 8 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 |
| <u>TRAPS, ETC.</u> | | | |
| <u>uPVC</u> | | | |
| 9 | 32 x 50mm Deep seal "P" or "S" trap | No | 2 |
| <u>TAPS, VALVES, ETC.</u> | | | |
| <u>"Cobra Watertech" or other equal approved</u> | | | |
| 10 | 19mm chrome plated push button taps to wash troughs | No | 2 |
| 11 | 15mm Elbow action pillar tap | No | 1 |
| 12 | 15mm gate valve plugged | No | 2 |
| <u>WATER SUPPLIES</u> | | | |
| Carried Forward | | | R |
| Section No. 3 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.2</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 65 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 65 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 7 | |
| 4 | Pit | m3 | 14 | |
| 5 | For aprons thickening | m3 | 2 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 6 | Soft rock | m3 | 1 | |
| 7 | Hard rock | m3 | 1 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 18 | |
| | Carried Forward | | R | |
| | Section No. 4 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|--|----|------|
| | <u>Risk of collapse of excavations</u> | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 36 |
| | <u>Keeping excavations free of water.</u> | | |
| 10 | Keeping excavations free of water other than subterranean water | | Item |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 8 |
| 12 | Backfilling to trenches, holes, etc. | m3 | 7 |
| | <u>Compaction of surfaces</u> | | |
| 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 | 25 |
| 14 | 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 | 4 |
| 15 | 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 | 23 |
| | <u>Prescribed density tests on filling</u> | | |
| 16 | Modified AASHTO Density tests | No | 4 |
| Carried Forward | | | R |
| Section No. 4 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|--|----|----------|
| <u>SOIL POISONING</u> | | | |
| <u>Soil insecticide</u> | | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 25 |
| 18 | To bottom of concrete aprons | m2 | 13 |
| 19 | To bottoms and sides of trenches, etc. | m2 | 20 |
| Carried Forward to Summary of Section No. 4 | | | R |
| Section No. 4 | | | |
| Bill No. 1 | | | |
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| Brought Forward | | | R |
|--|---|----|----|
| <u>TEST CUBES</u> | | | |
| 8 | 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 | 3 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 9 | Surface beds, slabs, etc. | m2 | 23 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 10 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 19 |
| | <u>Permanent formwork to soffits:</u> | | |
| 11 | Slabs propped up not exceeding 1.5m high | m2 | 6 |
| 12 | Leave or form 500mm diameter opening in top of floor slab | No | 2 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 13 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 23 |
| Carried Forward to Summary of Section No. 4 | | | R |
| Section No. 4 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.4</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 4 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 7 |
| 2 | One brick walls in pit | m2 | 10 |
| 3 | 4Half brick corbelling in pit | m | 5 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 3 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 7 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 19 |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 3 |
| 8 | Fair raking and cutting | m | 11 |
| Carried Forward | | | R |
| Section No. 4 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|-----|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 5 |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 4 |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 4 |
| <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 66 |
| 13 | 150mm Wide reinforcement built in horizontally | m | 275 |
| | <u>Turning pieces</u> | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 2 |
| | <u>Galvanised wire ties etc</u> | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 12 |
| | <u>Prestressed fabricated lintels</u> | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 9 |
| | <u>Ventillation bricks</u> | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 4 |
| Carried Forward to Summary of Section No. 4 | | | R |
| Section No. 4 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.6</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 22 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 22 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 7 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 2 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 2 | |
| 7 | Ditto ,for shoe | No | 2 | |
| | Carried Forward to Summary of Section No. 4 | | | |
| | Section No. 4 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 1 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 4 | | | | R |
| Section No. 4 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO. 11</u> | | | |
| | <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ENVIRO-LOO TOILET SYSTEMS</u> | | | |
| 1 | Supply and Install "Enviro-Loo" Industrial 1040 Model complete, installed strictly in accordance with manufacturers instructions, unit comprising of top unit and two x louvred inlets , drying plate , two x air inlets, standard toilet pan, seat and lid, 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 inter connector piping between multiple tanks, emergency outlet piping,etc | No | 2 | |
| | <u>SOIL DRAINAGE</u> | | | |
| | <u>Normal duty (Class 51) uPVC sewer and drain pipes</u> | | | |
| 2 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 10 | |
| | <u>Extra over normal duty (Class 51) uPVC sewer and drain pipes for fittings</u> | | | |
| 3 | 110mm Bend | No | 2 | |
| 4 | 110mm Junction | No | 2 | |
| | <u>uPVC gulleys</u> | | | |
| 5 | 110mm Dished gulley trap assembly with head, grid and concrete surround not exceeding 750mm deep | No | 3 | |
| | Carried Forward | | | |
| | Section No. 4 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | R | |

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| Brought Forward | | | R |
|--|---|----|----|
| <u>SANITARY FITTINGS</u> | | | |
| 6 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 1 |
| 7 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 |
| <u>TRAPS, ETC.</u> | | | |
| <u>uPVC</u> | | | |
| 8 | 32 x 50mm Deep seal "P" or "S" trap | No | 2 |
| <u>TAPS, VALVES, ETC.</u> | | | |
| <u>"Cobra Watertech" or other equal approved</u> | | | |
| 9 | 19mm chrome plated push button taps to wash troughs | No | 2 |
| 10 | 15mm Elbow action pillar tap | No | 1 |
| 11 | 15mm gate valve plugged | No | 2 |
| <u>WATER SUPPLIES</u> | | | |
| <u>Class 0 copper pipes</u> | | | |
| 12 | 15mm Pipes | m | 3 |
| 13 | 15mm Pipes chased in walls | m | 10 |
| <u>Extra over class 0 copper pipes for capillary fittings</u> | | | |
| 14 | 15mm Fittings | No | 5 |
| Carried Forward | | | R |
| Section No. 4 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Bill No | SECTION SUMMARY - BUILDING WORKS - F2 | Page No | Amount |
|----------------------------|---------------------------------------|---------|--------|
| 1 | EARTHWORKS | 64 | |
| 2 | CONCRETE, FORMWORK AND REINFORCEMENT | 66 | |
| 3 | MASONRY | 69 | |
| 4 | WATERPROOFING | 70 | |
| 5 | ROOF COVERINGS | 71 | |
| 6 | CARPENTRY AND JOINERY | 73 | |
| 7 | IRONMONGERY | 75 | |
| 8 | METALWORK | 77 | |
| 9 | IN SITU FINISHES | 78 | |
| 10 | PLUMBING AND DRAINAGE | 81 | |
| 11 | GLAZING | 82 | |
| 12 | PAINTWORK | 83 | |
| Carried to Final Summary | | | R |
| Section No. 4 | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION 4</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 67 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 67 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 7 | |
| 4 | Pit | m3 | 15 | |
| 5 | For aprons thickening | m3 | 1 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 6 | Soft rock | m3 | 1 | |
| 7 | Hard rock | m3 | 2 | |
| | Carried Forward | | R | |
| | Section No. 5 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|--|------|----|
| <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 16 |
| <u>Risk of collapse of excavations</u> | | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 49 |
| <u>Keeping excavations free of water.</u> | | | |
| 10 | Keeping excavations free of water other than subterranean water | Item | |
| <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 4 |
| 12 | Backfilling to trenches, holes, etc. | m3 | 4 |
| <u>Compaction of surfaces</u> | | | |
| 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 | 16 |
| 14 | 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 | 9 |
| Carried Forward | | | R |
| Section No. 5 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|----|
| 15 | 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 | 15 |
| | <u>Prescribed density tests on filling</u> | | |
| 16 | Modified AASHTO Density tests | No | 4 |
| | <u>SOIL POISONING</u> | | |
| | <u>Soil insecticide</u> | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 16 |
| 18 | To bottom of concrete aprons | m2 | 9 |
| 19 | To bottoms and sides of trenches, etc. | m2 | 66 |
| Carried Forward to Summary of Section No. 5 | | | R |
| Section No. 5 | | | |
| Bill No. 1 | | | |
| EARTHWORKS | | | |
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| Brought Forward | | | R |
|--|---|----|----|
| <u>TEST CUBES</u> | | | |
| 8 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 4 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 9 | Surface beds, slabs, etc. | m2 | 21 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 10 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 10 |
| | <u>Permanent formwork to soffits:</u> | | |
| 11 | Slabs propped up not exceeding 1.5m high | m2 | 6 |
| 12 | Leave or form 500mm diameter opening in top of floor slab | No | 7 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 13 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 21 |
| Carried Forward to Summary of Section No. 5 | | | R |
| Section No. 5 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.3</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 5 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 8 |
| 2 | One brick walls in pit | m2 | 12 |
| 3 | Half brick corbelling in pit | m | 9 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 3 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 16 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 43 |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 3 |
| Carried Forward | | | R |
| Section No. 5 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| | Brought Forward | | | R |
|----|--|----|-----|---|
| 8 | Fair raking and cutting | m | 3 | |
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 6 | |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 6 | |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 6 | |
| | <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 64 | |
| 13 | 150mm Wide reinforcement built in horizontally | m | 114 | |
| | <u>Turning pieces</u> | | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 5 | |
| | <u>Galvanised wire ties etc</u> | | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 12 | |
| | <u>Prestressed fabricated lintels</u> | | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 6 | |
| | <u>Ventillation bricks</u> | | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 3 | |
| | Carried Forward to Summary of Section No. 5 | | | R |
| | Section No. 5 | | | |
| | Bill No. 3 | | | |
| | MASONRY | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 24 | |
| | <u>ROOF AND WALL INSULATION</u> | | | |
| | <u>Sundries</u> | | | |
| | <u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u> | | | |
| 2 | Insulation laid taut over purlins (at approximately 1 000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires | m2 | 24 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 5 | |
| 4 | Extra over for closed ends | No | 1 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 4 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 1 | |
| | Carried Forward | | R | |
| | Section No. 5 Bill No. 5 ROOF COVERINGS KUTLO CONSULTING ENGINEERS | | | |

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EUREKA PRIMARY SCHOOL

| | | | | | |
|---|-----------------|-----------------|---|--|---|
| | | Brought Forward | | | R |
| 7 | Ditto ,for shoe | No | 1 | | |
| Carried Forward to Summary of Section No. 5 | | | | | R |
| Section No. 5 | | | | | |
| Bill No. 5 | | | | | |
| ROOF COVERINGS | | | | | |
| KUTLO CONSULTING ENGINEERS | | | | | |

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EUREKA PRIMARY SCHOOL

| Brought Forward | | | | R |
|--|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 44mm Framed batten door 813 x 2 032mm 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 (D1) | No | 2 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 4 | |
| Carried Forward to Summary of Section No. 5 | | | | |
| Section No. 5 | | | | R |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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THE MVULA TRUST

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EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|--|---|----|---|
| <u>"Kimberley-Clark" or Similar</u> | | | |
| 6 | "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder | No | 4 |
| <u>Sundries</u> | | | |
| 7 | Brushed stainless steel She bin approximately 330 x 280 x 180mm plugged | No | 2 |
| Carried Forward to Summary of Section No. 5 | | | R |
| Section No. 5 | | | |
| Bill No. 7 | | | |
| IRONMONGERY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|---|---|----|---|
| | <u>Cage,etc</u> | | |
| 6 | She bin cages ,to fit 330 x 280 x180mm width ,she bin to be able to open ,including pad locking mechanism, complete,etc | No | 2 |
| Carried Forward to Summary of Section No. 5 | | | R |
| Section No. 5 | | | |
| Bill No. 8 | | | |
| METALWORK | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| | Brought Forward | | | R |
|----|---|----|----|----------|
| | <u>"Vaal" or equal approved</u> | | | |
| 7 | "Daisy" code 774010 vitreous china semi-close coupled 90° outlet open rim washdown pan with "Walcro 107C HP" or equal approved flushing valve complete with lid, fitments and heavy duty seat | No | 4 | |
| 8 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 | |
| | <u>PCC Wash Trough</u> | | | |
| 9 | Supply and install pre-cast concrete double wash-trough, complete with all necessary fittings and pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 1 | |
| | <u>WASTE UNIONS, ETC</u> | | | |
| 10 | 32mm "301CP" Basin waste union | No | 1 | |
| | <u>TRAPS, ETC</u> | | | |
| | <u>"Marley"</u> | | | |
| 11 | 32 x 50mm Deep seal "P" or "S" trap | No | 1 | |
| | <u>SANITARY PLUMBING</u> | | | |
| | <u>uPVC pipes</u> | | | |
| 12 | 50mm Pipes | m | 20 | |
| | <u>Extra over uPVC pipes for fittings</u> | | | |
| 13 | 50mm Bend | No | 10 | |
| 14 | 50 mm Junction | No | 10 | |
| 15 | 50mm Access junction | No | 10 | |
| | Carried Forward | | | R |
| | Section No. 5 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.2</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 102 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 102 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 9 | |
| 4 | Pit | m3 | 30 | |
| 5 | For aprons thickening | m3 | 2 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 6 | Soft rock | m3 | 4 | |
| 7 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 32 | |
| | Carried Forward | | R | |
| | Section No. 6 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|--|--|------|----|
| | <u>Risk of collapse of excavations</u> | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 56 |
| | <u>Keeping excavations free of water.</u> | | |
| 10 | Keeping excavations free of water other than subterranean water | Item | |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 3 |
| 12 | Backfilling to trenches, holes, etc. | m3 | 5 |
| | <u>Compaction of surfaces</u> | | |
| 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 | 31 |
| 14 | Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 10 |
| 15 | 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 | 33 |
| | <u>Prescribed density tests on filling</u> | | |
| 16 | Modified AASHTO Density tests | No | 4 |
| Carried Forward | | | R |
| Section No. 6 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
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| Brought Forward | | | R |
|--|--|----|----------|
| <u>SOIL POISONING</u> | | | |
| <u>Soil insecticide</u> | | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 33 |
| 18 | To bottom of concrete aprons | m2 | 23 |
| 19 | To bottoms and sides of trenches, etc. | m2 | 22 |
| Carried Forward to Summary of Section No. 6 | | | R |
| Section No. 6 | | | |
| Bill No. 1 | | | |
| EARTHWORKS | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.3</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 5 | |
| 2 | Ditto, but surface bed | m3 | 8 | |
| 3 | 2Aprons cast in panels | m3 | 4 | |
| 4 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 15 | |
| 5 | Thickening down apron on edge 110mm deep x 200mm wide | m | 15 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 6 | Slabs | m3 | 3 | |
| | <u>CONCRETE SUNDRIES</u> | | | |
| | <u>Finishing top surfaces of concrete smooth with a wood float</u> | | | |
| 7 | Aprons and pavings to falls | m2 | 22 | |
| | Carried Forward | | R | |
| | Section No. 6 | | | |
| | Bill No. 2 | | | |
| | CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|----|
| <u>TEST CUBES</u> | | | |
| 8 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 4 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 9 | Surface beds, slabs, etc. | m2 | 33 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 10 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 37 |
| | <u>Permanent formwork to soffits:</u> | | |
| 11 | Slabs propped up not exceeding 1.5m high | m2 | 16 |
| 12 | Leave or form 500mm diameter opening in top of floor slab | No | 6 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 13 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 33 |
| Carried Forward to Summary of Section No. 6 | | | R |
| Section No. 6 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.4</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 6 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 10 |
| 2 | One brick walls in pit | m2 | 19 |
| 3 | Half brick corbelling in pit | m | 8 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 4 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 32 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 68 |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 5 |
| 8 | Fair raking and cutting | m | 11 |
| Carried Forward | | | R |
| Section No. 6 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|-----|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 16 |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 13 |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 6 |
| <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 181 |
| 13 | 150mm Wide reinforcement built in horizontally | m | 433 |
| | <u>Turning pieces</u> | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 7 |
| | <u>Galvanised wire ties etc</u> | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 20 |
| | <u>Prestressed fabricated lintels</u> | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 10 |
| | <u>Ventillation bricks</u> | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 12 |
| Carried Forward to Summary of Section No. 6 | | | R |
| Section No. 6 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.6</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 35 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 35 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 10 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 6 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 2 | |
| 7 | Ditto ,for shoe | No | 2 | |
| | Carried Forward to Summary of Section No. 6 | | | |
| | Section No. 6 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 6 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 6 | | | | R |
| Section No. 6 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| Brought Forward | | | R |
|--|--|----|---|
| | <u>"Dorma" or equal approved</u> | | |
| 6 | Dormakaba EN 2-4 Parallel Arm DELAYED ACTION Door Closer. Push Side Fixing (Parallel Arm Bracket Included) EN2 750-850, EN3 850-950, EN4 950-1100. Code TS73V PA DC - PAB - SL | No | 1 |
| | <u>LETTERS, NAMEPLATES, ETC.</u> | | |
| | <u>"Union" or similar approved</u> | | |
| 7 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 2 |
| | <u>BATHROOM FITTINGS</u> | | |
| | <u>"Kimberley-Clark" or Similar</u> | | |
| 8 | "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder | No | 7 |
| | <u>Sundries</u> | | |
| 9 | Brushed stainless steel She bin approximately 330 x 280 x 180mm plugged | No | 3 |
| Carried Forward to Summary of Section No. 6 | | | R |
| Section No. 6 | | | |
| Bill No. 7 | | | |
| IRONMONGERY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|---|
| <u>Cage,etc</u> | | | |
| 8 | She bin cages ,to fit 330 x 280 x180mm width, she bin to be able to open including pad locking mechanism, complete, etc | No | 3 |
| Carried Forward to Summary of Section No. 6 | | | R |
| Section No. 6 | | | |
| Bill No. 8 | | | |
| METALWORK | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO. 11</u> | | | |
| | <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SOIL DRAINAGE</u> | | | |
| | <u>Normal duty (Class 51) uPVC sewer and drain pipes</u> | | | |
| 1 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 10 | |
| | <u>Extra over normal duty (Class 51) uPVC sewer and drain pipes for fittings</u> | | | |
| 2 | 110mm Bend | No | 2 | |
| 3 | 110mm Junction | No | 2 | |
| | <u>uPVC gulleys</u> | | | |
| 4 | 110mm Dished gulley trap assembly with head, grid and concrete surround not exceeding 750mm deep | No | 2 | |
| | <u>FITTINGS</u> | | | |
| 5 | "Daisy" code 774010 vitreous china semi-close coupled 90° outlet open rim washdown pan with "Walcro 107C HP" or equal approved flushing valve complete with lid, fitments and heavy duty seat | No | 6 | |
| 6 | "Protea Paraplegic" code 7502 vitreous china pan with "Walcro 103 (LHS) HT" or equal approved flushing valve with elbow lever complete with lid, fitments and heavy duty seat | No | 1 | |
| | Carried Forward | | | |
| | Section No. 6 | | | |
| | Bill No. 10 | | | |
| | PLUMBING AND DRAINAGE | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
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| Brought Forward | | | R |
|--|---|----|----|
| 7 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 |
| | <u>PCC Wash Trough</u> | | |
| 8 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 2 |
| | <u>TRAPS, ETC.</u> | | |
| | <u>uPVC</u> | | |
| 9 | 32 x 50mm Deep seal "P" or "S" trap | No | 2 |
| | <u>TAPS, VALVES, ETC.</u> | | |
| | <u>"Cobra Watertech" or other equal approved</u> | | |
| 10 | 19mm chrome plated push button taps to wash troughs | No | 4 |
| 11 | 15mm gate valve plugged | No | 4 |
| | <u>SANITARY PLUMBING</u> | | |
| | <u>uPVC pipes</u> | | |
| 12 | 50mm Pipes | m | 60 |
| | <u>Extra over uPVC pipes for fittings</u> | | |
| 13 | 50mm Bend | No | 8 |
| 14 | 50 mm Junction | No | 8 |
| 15 | 50mm Access junction | No | 8 |
| 16 | 50mm Access bend | No | 8 |
| Carried Forward | | | R |
| Section No. 6 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| | Brought Forward | | | R |
|--|--|----|------|---|
| 17 | 50mm Access reducing junction | m | 8 | |
| 18 | 50mm "GI Two-way" vent valve | No | 8 | |
| | <u>WATER SUPPLIES</u> | | | |
| | <u>Class 0 copper pipes</u> | | | |
| 19 | 15 mm Pipes | m | 83 | |
| 20 | 15mm Pipes chased in walls | m | 50 | |
| | <u>Extra over class 0 copper pipes for capillary fittings</u> | | | |
| 21 | 15mm Fittings | No | 20 | |
| | <u>Sundries</u> | | | |
| 22 | Testing water pipe system | | Item | |
| Carried Forward to Summary of Section No. 6 | | | | R |
| Section No. 6 | | | | |
| Bill No. 10 | | | | |
| PLUMBING AND DRAINAGE | | | | |
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| Brought Forward | | | R |
|---|--|------|----|
| <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 10 |
| <u>Risk of collapse of excavations</u> | | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 49 |
| <u>Keeping excavations free of water.</u> | | | |
| 10 | Keeping excavations free of water other than subterranean water | Item | |
| <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod</u> | | | |
| <u>AASHTO density</u> | | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 5 |
| 12 | Backfilling to trenches, holes, etc. | m3 | 39 |
| <u>Compaction of surfaces</u> | | | |
| 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 | 38 |
| 14 | 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 | 22 |
| Carried Forward | | | R |
| Section No. 7 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|----|
| 15 | 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 | 27 |
| | <u>Prescribed density tests on filling</u> | | |
| 16 | Modified AASHTO Density tests | No | 4 |
| | <u>SOIL POISONING</u> | | |
| | <u>Soil insecticide</u> | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 33 |
| 18 | To bottom of concrete aprons | m2 | 25 |
| 19 | To bottoms and sides of trenches, etc. | m2 | 55 |
| Carried Forward to Summary of Section No. 7 | | | R |
| Section No. 7 | | | |
| Bill No. 1 | | | |
| EARTHWORKS | | | |
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| Brought Forward | | | R |
|--|---|----|----|
| | <u>Finishing top surfaces of concrete smooth with a wood float</u> | | |
| 8 | Aprons and pavings to falls | m2 | 25 |
| | <u>TEST CUBES</u> | | |
| 9 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 4 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 10 | Surface beds, slabs, etc. | m2 | 33 |
| | <u>FORMWORK</u> | | |
| | <u>Rough formwork to sides:</u> | | |
| 11 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 28 |
| | <u>Permanent formwork to soffits:</u> | | |
| 12 | Slabs propped up not exceeding 1.5m high | m2 | 3 |
| 13 | Leave or form 500mm diameter opening in top of floor slab | No | 5 |
| | <u>REINFORCEMENT</u> | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 14 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 33 |
| Carried Forward to Summary of Section No. 7 | | | R |
| Section No. 7 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.3</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 7 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| | | | | |
|---|---|----|----|---|
| | Brought Forward | | | R |
| | <u>SAMPLES</u> | | | |
| | Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| | <u>FOUNDATIONS</u> | | | |
| | <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 15 | |
| 2 | One brick walls in pit | m2 | 18 | |
| 3 | Half brick corbelling in pit | m | 25 | |
| | <u>FACE BRICKWORK</u> | | | |
| | <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 4 | |
| | <u>SUPERSTRUCTURE</u> | | | |
| | <u>FACE BRICKWORK</u> | | | |
| | <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 23 | |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 62 | |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 6 | |
| | Carried Forward | | | R |
| | Section No. 7 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| | Brought Forward | | | R |
|----|---|----|-----|---|
| 8 | Fair raking and cutting | m | 11 | |
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 9 | |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 11 | |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 2 | |
| | <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 76 | |
| 13 | 150mm Wide reinforcement built in horizontally | m | 260 | |
| | <u>Turning pieces</u> | | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 6 | |
| | <u>Galvanised wire ties etc</u> | | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 27 | |
| | <u>Prestressed fabricated lintels</u> | | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 8 | |
| | <u>Ventillation bricks</u> | | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 8 | |
| | Carried Forward to Summary of Section No. 7 | | | R |
| | Section No. 7 | | | |
| | Bill No. 3 | | | |
| | MASONRY | | | |
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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 36 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 37 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 8 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 6 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 2 | |
| 7 | Ditto ,for shoe | No | 2 | |
| | Carried Forward to Summary of Section No. 7 | | | |
| | Section No. 7 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
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| Brought Forward | | | | R |
|--|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 3 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 7 | | | | R |
| Section No. 7 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| | Brought Forward | | | R |
|--|--|----|---|---|
| | <u>"Dorma" or equal approved</u> | | | |
| 6 | Dormakaba EN 2-4 Parallel Arm DELAYED ACTION Door Closer. Push Side Fixing (Parallel Arm Bracket Included) EN2 750-850, EN3 850-950, EN4 950-1100. Code TS73V PA DC - PAB - SL | No | 1 | |
| | <u>LETTERS, NAMEPLATES, ETC.</u> | | | |
| | <u>"Union" or similar approved</u> | | | |
| 7 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 3 | |
| | <u>"Vaal Paragon" or similar approved</u> | | | |
| 8 | 32mm Type 9 back grab rail 800mm long plugged | No | 1 | |
| 9 | 32mm Type 8 side grab rail 900mm girth plugged | No | 1 | |
| | <u>BATHROOM FITTINGS</u> | | | |
| | <u>"Kimberley-Clark" or Similar</u> | | | |
| 10 | "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder | No | 4 | |
| | <u>Sundries</u> | | | |
| 11 | Brushed stainless steel She bin approximately 330 x 280 x 180mm plugged | No | 1 | |
| Carried Forward to Summary of Section No. 7 | | | | R |
| Section No. 7 | | | | |
| Bill No. 7 | | | | |
| IRONMONGERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| Brought Forward | | | R |
|---|---|----|---|
| <u>Cage,etc</u> | | | |
| 8 | She bin cages ,to fit 330 x 280 x180mm width, she bin to be able to open including pad locking mechanism, complete, etc | No | 1 |
| Carried Forward to Summary of Section No. 7 | | | R |
| Section No. 7 | | | |
| Bill No. 8 | | | |
| METALWORK | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO. 10</u> | | | |
| | <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ENVIRO-LOO TOILET SYSTEMS</u> | | | |
| 1 | Supply and Install "Enviro-Loo" Industrial 1040 Model complete, installed strictly in accordance with manufacturers instructions, unit comprising of top unit and two x louvred inlets , drying plate , two x air inlets,standard toilet pan, seat and lid, 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 inter connector piping between multiple tanks, emergency outlet piping,etc | No | 4 | |
| 2 | Supply and Erect "Enviro-loo" "Industrial 1040 Model,2-bowl Urinal Evaporative Tank system fixed complete as per manufacturers specification unit, comprising of urinal evaporative tank , urinal 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 | 1 | |
| | <u>SOIL DRAINAGE</u> | | | |
| | <u>Normal duty (Class 51) uPVC sewer and drain pipes</u> | | | |
| 3 | 110mm Pipes vertically or ramped to cleaning eyes, etc. | m | 30 | |
| 4 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 30 | |
| | Carried Forward | | R | |
| | Section No. 7 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|---|----|------|---|
| <u>Extra over normal duty (Class 51) uPVC sewer and drain pipes for fittings</u> | | | | |
| 5 | 110mm Bend | No | 5 | |
| 6 | 110mm Junction | No | 5 | |
| 7 | 110mm Rodding eye | No | 3 | |
| 8 | 110mm Inspection eye | No | 3 | |
| <u>uPVC gulleys</u> | | | | |
| 9 | 110mm Dished gully trap assembly with head, grid and concrete surround not exceeding 750mm deep | No | 2 | |
| <u>Testing :</u> | | | | |
| 10 | Testing soil drainage system | | Item | |
| <u>SANITARY FITTINGS</u> | | | | |
| <u>Vaal or equal approved</u> | | | | |
| 11 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 | |
| <u>PCC WASH TROUGH</u> | | | | |
| 12 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 2 | |
| <u>WASTE UNIONS, ETC</u> | | | | |
| 13 | 32mm "301CP" Basin waste union | No | 1 | |
| <u>TRAPS, ETC.</u> | | | | |
| Carried Forward | | | | R |
| Section No. 7 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | | |

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| | Brought Forward | | | R |
|----|---|----|----|---|
| | <u>"Marley"</u> | | | |
| 14 | 32 x 50mm Deep seal "P" or "S" trap | No | 4 | |
| | <u>TAPS, VALVES, ETC.</u> | | | |
| | <u>"Cobra Watertech" or other equal approved</u> | | | |
| 15 | 15mm gate valve plugged | No | 4 | |
| 16 | 15mm Elbow action pillar tap | No | 1 | |
| 17 | 19mm Chrome plated push button taps to WHB | No | 4 | |
| | <u>SANITARY PLUMBING</u> | | | |
| | <u>uPVC pipes</u> | | | |
| 18 | 50mm Pipes | m | 30 | |
| | <u>Extra over uPVC pipes for fittings</u> | | | |
| 19 | 50mm Bend | No | 2 | |
| 20 | 50 mm Junction | No | 2 | |
| 21 | 50mm Access junction | No | 2 | |
| 22 | 50mm Access bend | No | 2 | |
| 23 | 50mm Access reducing junction | m | 2 | |
| 24 | 50mm "GI Two-way" vent valve | No | 2 | |
| | <u>WATER SUPPLIES</u> | | | |
| | <u>Class 0 copper pipes</u> | | | |
| 25 | 15 mm Pipes | m | 3 | |
| 26 | 15mm Pipes chased in walls | m | 10 | |
| | Carried Forward | | | R |
| | Section No. 7 | | | |
| | Bill No. 10 | | | |
| | PLUMBING AND DRAINAGE | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.2</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 113 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 113 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 15 | |
| 4 | Pit | m3 | 34 | |
| 5 | For aprons thickening | m3 | 2 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 6 | Soft rock | m3 | 5 | |
| 7 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 11 | |
| | Carried Forward | | R | |
| | Section No. 8 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|--|----|------|---|
| | <u>Risk of collapse of excavations</u> | | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 50 | |
| | <u>Keeping excavations free of water.</u> | | | |
| 10 | Keeping excavations free of water other than subterranean water | | Item | |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 5 | |
| 12 | Backfilling to trenches, holes, etc. | m3 | 40 | |
| | <u>Compaction of surfaces</u> | | | |
| 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 | 38 | |
| 14 | 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 | 22 | |
| 15 | 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 | 27 | |
| | <u>Prescribed density tests on filling</u> | | | |
| 16 | Modified AASHTO Density tests | No | 4 | |
| Carried Forward | | | | R |
| Section No. 8 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | | |

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| Brought Forward | | | R |
|--|--|----|----|
| <u>SOIL POISONING</u> | | | |
| <u>Soil insecticide</u> | | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 38 |
| 18 | To bottom of concrete aprons | m2 | 27 |
| 19 | To bottoms and sides of trenches, etc. | m2 | 65 |
| Carried Forward to Summary of Section No. 8 | | | R |
| Section No. 8 | | | |
| Bill No. 1 | | | |
| EARTHWORKS | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|----|
| | <u>Finishing top surfaces of concrete smooth with a wood float</u> | | |
| 8 | Aprons and pavings to falls | m2 | 27 |
| | <u>TEST CUBES</u> | | |
| 9 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 4 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 10 | Surface beds, slabs, etc. | m2 | 38 |
| | <u>FORMWORK</u> | | |
| | <u>Rough formwork to sides:</u> | | |
| 11 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 29 |
| | <u>Permanent formwork to soffits:</u> | | |
| 12 | Slabs propped up not exceeding 1.5m high | m2 | 3 |
| 13 | Leave or form 500mm diameter opening in top of floor slab | No | 6 |
| | <u>REINFORCEMENT</u> | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 14 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 38 |
| Carried Forward to Summary of Section No. 8 | | | R |
| Section No. 8 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | Quantity | Rate | Amount |
|---|----------|------|--------|
| <u>BILL NO.4</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 8 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 18 |
| 2 | One brick walls in pit | m2 | 20 |
| 3 | 4Half brick corbelling in pit | m | 28 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 5 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 15 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 68 |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 16 |
| 8 | Fair raking and cutting | m | 13 |
| Carried Forward | | | R |
| Section No. 8 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|-----|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 11 |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 11 |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 2 |
| <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 88 |
| 13 | 150mm Wide reinforcement built in horizontally | m | 274 |
| | <u>Turning pieces</u> | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 6 |
| | <u>Galvanised wire ties etc</u> | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 27 |
| | <u>Prestressed fabricated lintels</u> | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 10 |
| | <u>Ventillation bricks</u> | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 9 |
| Carried Forward to Summary of Section No. 8 | | | R |
| Section No. 8 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.6</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 38 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 38 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 10 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 6 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 2 | |
| 7 | Ditto ,for shoe | No | 2 | |
| | Carried Forward to Summary of Section No. 8 | | | |
| | Section No. 8 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 2 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 5 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 8 | | | | R |
| Section No. 8 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| | Brought Forward | | | R |
|--|--|----|---|---|
| | <u>"Dorma" or equal approved</u> | | | |
| 6 | Dormakaba EN 2-4 Parallel Arm DELAYED ACTION Door Closer. Push Side Fixing (Parallel Arm Bracket Included) EN2 750-850, EN3 850-950, EN4 950-1100. Code TS73V PA DC - PAB - SL | No | 1 | |
| | <u>LETTERS, NAMEPLATES, ETC.</u> | | | |
| | <u>"Union" or similar approved</u> | | | |
| 7 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 3 | |
| | <u>"Vaal Paragon" or similar approved</u> | | | |
| 8 | 32mm Type 9 back grab rail 800mm long plugged | No | 1 | |
| 9 | 32mm Type 8 side grab rail 900mm girth plugged | No | 1 | |
| | <u>BATHROOM FITTINGS</u> | | | |
| | <u>"Kimberley-Clark" or Similar</u> | | | |
| 10 | "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder | No | 6 | |
| | <u>Sundries</u> | | | |
| 11 | Brushed stainless steel She bin approximately 330 x 280 x 180mm plugged | No | 2 | |
| Carried Forward to Summary of Section No. 8 | | | | R |
| Section No. 8 | | | | |
| Bill No. 7 | | | | |
| IRONMONGERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| Brought Forward | | | R |
|---|---|----|---|
| <u>Cage,etc</u> | | | |
| 8 | She bin cages ,to fit 330 x 280 x180mm width, she bin to be able to open including pad locking mechanism, complete, etc | No | 2 |
| Carried Forward to Summary of Section No. 8 | | | R |
| Section No. 8 | | | |
| Bill No. 8 | | | |
| METALWORK | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|----------|
| 10 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock | m3 | 1 |
| <u>FITTINGS</u> | | | |
| <u>White glazed fireclay or vitreous china coupling with SABS specification 497 in</u> | | | |
| <u>"Vaal" or equal approved</u> | | | |
| 11 | "Daisy" code 774010 vitreous china semi-close coupled 90° outlet open rim washdown pan with "Walcro 107C HP" or equal approved flushing valve complete with lid, fitments and heavy duty seat | No | 5 |
| 12 | "Protea Paraplegic" code 7502 vitreous china pan with "Walcro 103 (LHS) HT" or equal approved flushing valve with elbow lever complete with lid, fitments and heavy duty seat | No | 1 |
| 13 | 600 x 385 x 380mm "Lavatera" code 705426 white vitreous china urinal with code FJ6000 "Flushmaster" flush valve or equal approved, Code 8543Z0 chromium plated spreader, 38mm code 8787Z0 chromium plated domical grating, fixed on and including two No. 8127Z0 wall hangers | No | 2 |
| 14 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 |
| Carried Forward | | | R |
| Section No. 8 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|----|
| | <u>PCC Wash Trough</u> | | |
| 15 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 3 |
| | <u>WASTE UNIONS, ETC.</u> | | |
| 16 | 32 mm Chromium plated basin waste union | No | 1 |
| | <u>TRAPS, ETC.</u> | | |
| 17 | 40 x 50mm Rubber butyl deep seal "P" or "S" trap | No | 3 |
| | <u>TAPS, VALVES, ETC.</u> | | |
| | <u>"Cobra Watertech" or other equal approved</u> | | |
| 18 | 15mm elbow action tap plugged | No | 1 |
| 19 | 15mm gate valve plugged | No | 1 |
| 20 | 19mm chrome plated push button taps to wash troughs | No | 4 |
| | <u>Sundires</u> | | |
| 21 | Stainless-steel SHE-BIN plugged to walls | No | 2 |
| | <u>SANITARY PLUMBING</u> | | |
| | <u>uPVC Pipes</u> | | |
| 22 | 50mm Pipes | m | 49 |
| 23 | 50mm Pipes laid in and including trenches under floors | m | 63 |
| Carried Forward | | | R |
| Section No. 8 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|------|---|
| <u>Extra over uPVC pipes for fittings</u> | | | |
| 24 | 50mm Bend | No 3 | |
| 25 | 50mm IE Bend | No 4 | |
| 26 | 50mm Vent valve | No 2 | |
| 27 | 110mm Access bend | No 2 | |
| 28 | 110mm Junction | No 3 | |
| 29 | 100mm Access junction | No 2 | |
| 30 | 110mm Reducing junction | No 3 | |
| 31 | 110mm GI two way vent valve | No 6 | |
| 32 | 110mm IE bend | No 6 | |
| 33 | 110mm Pan connector | No 6 | |
| <u>TESTING:</u> | | | |
| 34 | Testing waste pipe system | Item | |
| <u>WATER SUPPLIES</u> | | | |
| <u>HDPE pressure pipes class 12:</u> | | | |
| 35 | 32mm Pipes laid in and including trenches not exceeding 1m deep | m 86 | |
| 36 | 50mm Pipes laid in and including trenches not exceeding 1m deep | m 53 | |
| <u>Extra over HDPE pressure pipes for "plascon" fittings:</u> | | | |
| 37 | 32mm Fittings | No 5 | |
| 38 | 50mm Fittings | No 5 | |
| Carried Forward | | | R |
| Section No. 8 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Bill No | SECTION SUMMARY - BUILDING WORKS - SD6 WATERBORNE | Page No | Amount |
|---|---|------------|--------|
| 1 | EARTHWORKS | 158 | |
| 2 | CONCRETE, FORMWORK AND REINFORCEMENT | 160 | |
| 3 | MASONRY | 163 | |
| 4 | WATERPROOFING | 164 | |
| 5 | ROOF COVERINGS | 165 | |
| 6 | CARPENTRY AND JOINERY | 167 | |
| 7 | IRONMONGERY | 169 | |
| 8 | METALWORK | 171 | |
| 9 | IN SITU FINISHES | 172 | |
| 10 | PLUMBING AND DRAINAGE | 177 | |
| 11 | GLAZING | 178 | |
| 12 | PAINTWORK | 179 | |
| <p style="text-align: right;">Carried to Final Summary</p> <p>Section No. 8 KUTLO CONSULTING ENGINEERS</p> | | | R |
| | | | |
| | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION 7</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 65 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 65 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 16 | |
| 4 | For aprons thickening | m3 | 4 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 5 | Soft rock | m3 | 20 | |
| 6 | Hard rock | m3 | 20 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 7 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 8 | |
| | Carried Forward | | R | |
| | Section No. 9 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|--|----|------|
| <u>Risk of collapse of excavations</u> | | | |
| 8 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 46 |
| <u>Keeping excavations free of water.</u> | | | |
| 9 | Keeping excavations free of water other than subterranean water | | Item |
| <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | |
| 10 | Under floors, steps, pavings, etc. | m3 | 6 |
| 11 | Backfilling to trenches, holes, etc. | m3 | 9 |
| <u>Compaction of surfaces</u> | | | |
| 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 |
| 13 | 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 | 15 |
| 14 | 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 | 37 |
| <u>Prescribed density tests on filling</u> | | | |
| 15 | Modified AASHTO Density tests | No | 5 |
| Carried Forward | | | R |
| Section No. 9 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|----|
| <u>TEST CUBES</u> | | | |
| 7 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 24 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 8 | Surface beds, slabs, etc. | m2 | 21 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 9 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 34 |
| | <u>Permanent formwork to soffits:</u> | | |
| 10 | Slabs propped up not exceeding 1.5m high | m2 | 15 |
| 11 | Leave or form 500mm diameter opening in top of floor slab | No | 3 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 12 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 21 |
| Carried Forward to Summary of Section No. 9 | | | R |
| Section No. 9 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.3</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 9 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 18 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 2 | Extra over brickwork for face brickwork in foundation | m2 | 3 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 3 | Half brickwork for face brick walls pointed both sides | m2 | 14 |
| 4 | One brickwork for face brick walls pointed both sides | m2 | 70 |
| 5 | Extra over brickwork for face brickwork in beamfilling | m2 | 4 |
| 6 | Fair raking and cutting | m | 7 |
| Carried Forward | | | R |
| Section No. 9 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|-----|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 7 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 8 |
| 8 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 5 |
| 9 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 6 |
| 10 | Fair cutting and fitting around pipe exceeding 100mm diameter and not exceeding 100mm diameter. | No | 3 |
| <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | |
| 11 | 75mm Wide reinforcement built in horizontally | m | 41 |
| 12 | 150mm Wide reinforcement built in horizontally | m | 279 |
| | <u>Turning pieces</u> | | |
| 13 | 220mm Wide turning piece to lintel etc | m | 8 |
| | <u>Galvanised wire ties etc</u> | | |
| 14 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 16 |
| | <u>Ventillation bricks</u> | | |
| 15 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 9 |
| Carried Forward to Summary of Section No. 9 | | | R |
| Section No. 9 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 32 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 32 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 7 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 3 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 1 | |
| 7 | Ditto ,for shoe | No | 1 | |
| | Carried Forward to Summary of Section No. 9 | | | |
| | Section No. 9 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Brought Forward | | | | R |
|--|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1883mm 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 (door raised by 120mm from bottom) (D2) | No | 2 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 9 | | | | R |
| Section No. 9 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.8</u> | | | |
| | <u>METALWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>WELDED SCREENS, GATES, ETC</u> | | | |
| | <u>Steel gates and frames</u> | | | |
| 1 | Purpose made square hallow section mild steel security gate, size 813 x 2032mm High | No | 1 | |
| 2 | Purpose made square hallow section mild steel security gate, size 914 x 2032mm High | No | 1 | |
| | <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| | <u>1,6mm Double rebated frames suitable for half brickwalls</u> | | | |
| 3 | Frame for door 813 x 2032mm high | No | 2 | |
| | <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 4 | Frame for door 813 x 2032mm high | No | 1 | |
| 5 | Frame for door 914 x 2032mm high | No | 1 | |
| | <u>STEEL WINDOWS, DOORS, ETC</u> | | | |
| 6 | Window type NE1, 533 x 654mm high including burglar bars | No | 4 | |
| 7 | Window type NE 7,1022 x 654mm high including burglar bars | No | 2 | |
| | Carried Forward to Summary of Section No. 9 | | R | |
| | Section No. 9 | | | |
| | Bill No. 8 | | | |
| | METALWORK | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|---|---|----|---|
| 10 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock | m3 | 1 |
| <u>FITTINGS</u> | | | |
| <u>White glazed fireclay or vitreous china coupling with SABS specification 497 in</u> | | | |
| <u>"Vaal" or equal approved</u> | | | |
| 11 | Vitreous china "Junior" 104° outlet washdown pan (code 751300), matching Junior Elite 6 litre cistern (code 7116LL) complete with lid and fitments, and Junior Jazz seat (code 8532Z000) or equal approved | No | 2 |
| 12 | 600 x 385 x 380mm "Lavatera" code 705426 white vitreous china urinal with code FJ6000 "Flushmaster" flush valve or equal approved, Code 8543Z0 chromium plated spreader, 38mm code 8787Z0 chromium plated domical grating, fixed on and including two No. 8127Z0 wall hangers | No | 2 |
| Carried Forward | | | R |
| Section No. 9 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| | Brought Forward | | | R |
|----|---|----|----|---|
| | <u>PCC Wash Trough</u> | | | |
| 13 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 2 | |
| | <u>TRAPS, ETC.</u> | | | |
| 14 | 40 x 50mm Rubber butyl deep seal "P" or "S" trap | No | 2 | |
| | <u>TAPS, VALVES, ETC.</u> | | | |
| | <u>"Cobra Watertech" or other equal approved</u> | | | |
| 15 | 15mm gate valve plugged | No | 12 | |
| 16 | 19mm chrome plated push button taps to wash troughs | No | 2 | |
| | <u>SANITARY PLUMBING</u> | | | |
| | <u>uPVC Pipes</u> | | | |
| 17 | 50mm Pipes | m | 39 | |
| 18 | 50mm Pipes laid in and including trenches under floors | m | 23 | |
| | <u>Extra over uPVC pipes for fittings</u> | | | |
| 19 | 50mm Bend | No | 9 | |
| 20 | 50mm IE Bend | No | 8 | |
| 21 | 50mm Vent valve | No | 6 | |
| 22 | 110mm Access bend | No | 6 | |
| 23 | 110mm Junction | No | 7 | |
| 24 | 100mm Access junction | No | 6 | |
| | Carried Forward | | | R |
| | Section No. 9 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| | | Brought Forward | | R |
|----|---|------------------------|------|---|
| 25 | 110mm Reducing junction | No | 7 | |
| 26 | 110mm GI two way vent valve | No | 6 | |
| 27 | 110mm IE bend | No | 6 | |
| 28 | 110mm Pan connector | No | 6 | |
| | <u>TESTING:</u> | | | |
| 29 | Testing waste pipe system | | Item | |
| | <u>WATER SUPPLIES</u> | | | |
| | <u>HDPE pressure pipes class 12:</u> | | | |
| 30 | 32mm Pipes laid in and including trenches not exceeding 1m deep | m | 76 | |
| 31 | 50mm Pipes laid in and including trenches not exceeding 1m deep | m | 38 | |
| | <u>Extra over HDPE pressure pipes for "plascon" fittings:</u> | | | |
| 32 | 32mm Fittings | No | 12 | |
| 33 | 50mm Fittings | No | 12 | |
| 34 | 32mm Reducer | No | 12 | |
| 35 | 50mm Reducer | No | 12 | |
| 36 | 32mm Bend | No | 12 | |
| 37 | 50mm Bend | No | 12 | |
| 38 | 50mm Threaded adaptor | No | 8 | |
| | <u>CLASS O copper pipes:</u> | | | |
| 39 | 15mm Pipes | m | 50 | |
| | | | | |
| | | Carried Forward | | R |
| | Section No. 9 | | | |
| | Bill No. 10 | | | |
| | PLUMBING AND DRAINAGE | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|--|--|----|------|
| <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 8 |
| <u>Risk of collapse of excavations</u> | | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 46 |
| <u>Keeping excavations free of water.</u> | | | |
| 10 | Keeping excavations free of water other than subterranean water | | Item |
| <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 6 |
| 12 | Backfilling to trenches, holes, etc. | m3 | 9 |
| <u>Compaction of surfaces</u> | | | |
| 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 | 21 |
| 14 | 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 | 15 |
| 15 | 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 | 37 |
| Carried Forward | | | R |
| Section No. 10 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| | Brought Forward | | | R |
|---|--|----|----|---|
| | <u>Prescribed density tests on filling</u> | | | |
| 16 | Modified AASHTO Density tests | No | 5 | |
| | <u>SOIL POISONING</u> | | | |
| | <u>Soil insecticide</u> | | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 21 | |
| 18 | To bottom of concrete aprons | m2 | 37 | |
| 19 | To bottoms and sides of trenches, etc. | m2 | 63 | |
| Carried Forward to Summary of Section No. 10 | | | | R |
| Section No. 10 | | | | |
| Bill No. 1 | | | | |
| EARTHWORKS | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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EUREKA PRIMARY SCHOOL

| Brought Forward | | | R |
|---|---|----|----|
| <u>TEST CUBES</u> | | | |
| 8 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 24 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 9 | Surface beds, slabs, etc. | m2 | 21 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 10 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 34 |
| | <u>Permanent formwork to soffits:</u> | | |
| 11 | Slabs propped up not exceeding 1.5m high | m2 | 15 |
| 12 | Leave or form 500mm diameter opening in top of floor slab | No | 3 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 13 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 21 |
| Carried Forward to Summary of Section No. 10 | | | R |
| Section No. 10 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| KUTLO CONSULTING ENGINEERS | | | |

THE MVULA TRUST
LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.3</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 10 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 18 |
| 2 | One brick walls in pit | m2 | 31 |
| 3 | 4Half brick corbelling in pit | m | 13 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 3 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 14 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 70 |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 4 |
| Carried Forward | | | R |
| Section No. 10 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|-----|
| 8 | Fair raking and cutting | m | 7 |
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 8 |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 5 |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 6 |
| 12 | Fair cutting and fitting around pipe exceeding 100mm diameter and not exceeding 100mm diameter. | No | 3 |
| | <u>BRICKWORK SUNDRIES</u> | | |
| | <u>Brick reinforcement</u> | | |
| 13 | 75mm Wide reinforcement built in horizontally | m | 41 |
| 14 | 150mm Wide reinforcement built in horizontally | m | 279 |
| | <u>Turning pieces</u> | | |
| 15 | 220mm Wide turning piece to lintel etc | m | 8 |
| | <u>Galvanised wire ties etc</u> | | |
| 16 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 16 |
| | <u>Ventillation bricks</u> | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 9 |
| Carried Forward to Summary of Section No. 10 | | | R |
| Section No. 10 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 32 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 32 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 7 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 3 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 1 | |
| 7 | Ditto ,for shoe | No | 1 | |
| | Carried Forward to Summary of Section No. 10 | | | |
| | Section No. 10 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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THE MVULA TRUST
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| Brought Forward | | | | R |
|---|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 1 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 10 | | | | R |
| Section No. 10 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.8</u> | | | |
| | <u>METALWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>WELDED SCREENS, GATES, ETC</u> | | | |
| | <u>Steel gates and frames</u> | | | |
| 1 | Purpose made square hallow section mild steel security gate, size 813 x 2032mm High | No | 1 | |
| 2 | Purpose made square hallow section mild steel security gate, size 914 x 2032mm High | No | 1 | |
| | <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| | <u>1,6mm Double rebated frames suitable for half brickwalls</u> | | | |
| 3 | Frame for door 813 x 2032mm high | No | 1 | |
| | <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 4 | Frame for door 813 x 2032mm high | No | 1 | |
| 5 | Frame for door 914 x 2032mm high | No | 1 | |
| | <u>STEEL WINDOWS, DOORS, ETC</u> | | | |
| 6 | Window type NE1, 533 x 654mm high including burglar bars | No | 4 | |
| 7 | Window type NE 7,1022 x 654mm high including burglar bars | No | 2 | |
| | Carried Forward to Summary of Section No. 10 | | R | |
| | Section No. 10 | | | |
| | Bill No. 8 | | | |
| | METALWORK | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|----------|
| 10 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock | m3 | 1 |
| <u>FITTINGS</u> | | | |
| <u>White glazed fireclay or vitreous china coupling with SABS specification 497 in</u> | | | |
| 11 | Vitreous china "Junior" 104° outlet washdown pan (code 751300), matching Junior Elite 6 litre cistern (code 7116LL) complete with lid and fitments, and Junior Jazz seat (code 8532Z000) or equal approved | No | 1 |
| 12 | "Protea Junior Paraplegic" code 7502 vitreous china pan with "Walcro 103 (LHS) HT" or equal approved flushing valve with elbow lever complete with lid, fitments and heavy duty seat | No | 1 |
| 13 | 600 x 385 x 380mm "Lavatera" code 705426 white vitreous china urinal with code FJ6000 "Flushmaster" flush valve or equal approved, Code 8543Z0 chromium plated spreader, 38mm code 8787Z0 chromium plated domical grating, fixed on and including two No. 8127Z0 wall hangers | No | 2 |
| Carried Forward | | | R |
| Section No. 10 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|----|
| | <u>PCC Wash Trough</u> | | |
| 14 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 3 |
| | <u>WASTE UNIONS, ETC.</u> | | |
| 15 | 32 mm Chromium plated basin waste union | No | 1 |
| | <u>TRAPS, ETC.</u> | | |
| 16 | 40 x 50mm Rubber butyl deep seal "P" or "S" trap | No | 1 |
| | <u>TAPS, VALVES, ETC.</u> | | |
| | <u>"Cobra Watertech" or other equal approved</u> | | |
| 17 | 15mm elbow action tap plugged | No | 1 |
| 18 | 15mm gate valve plugged | No | 12 |
| 19 | 19mm chrome plated push button taps to wash troughs | No | 6 |
| | <u>Sundires</u> | | |
| 20 | Stainless-steel SHE-BIN plugged to walls | No | 3 |
| | <u>SANITARY PLUMBING</u> | | |
| | <u>uPVC Pipes</u> | | |
| 21 | 50mm Pipes | m | 39 |
| 22 | 50mm Pipes laid in and including trenches under floors | m | 28 |
| Carried Forward | | | R |
| Section No. 10 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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EUREKA PRIMARY SCHOOL

| | Brought Forward | | | R |
|---|--|----|------|---|
| 38 | 32mm Reducer | No | 4 | |
| 39 | 50mm Reducer | No | 3 | |
| 40 | 32mm Bend | No | 4 | |
| 41 | 50mm Bend | No | 4 | |
| 42 | 50mm Threaded adaptor | No | 4 | |
| | <u>CLASS O copper pipes:</u> | | | |
| 43 | 15mm Pipes | m | 45 | |
| 44 | 22mm Pipes | m | 45 | |
| | <u>Extra over class O copper pipes for capillary fittings:</u> | | | |
| 45 | 15mm Fittings | No | 13 | |
| 46 | 22mm Fittings | No | 13 | |
| | <u>TESTING:</u> | | | |
| 47 | Testing water pipe system | | Item | |
| Carried Forward to Summary of Section No. 10 | | | | R |
| Section No. 10 | | | | |
| Bill No. 10 | | | | |
| PLUMBING AND DRAINAGE | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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LPDE 2022/2023 WATER, SANITATION AND FENCING PROGRAMME
EUREKA PRIMARY SCHOOL

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.2</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 95 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 52 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 5 | |
| 4 | For aprons thickening | m3 | 1 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 5 | Soft rock | m3 | 1 | |
| 6 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 7 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 30 | |
| | Carried Forward | | R | |
| | Section No. 11 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|------|
| | <u>Risk of collapse of excavations</u> | | |
| 8 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 20 |
| | <u>Keeping excavations free of water.</u> | | |
| 9 | Keeping excavations free of water other than subterranean water | | Item |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod</u> | | |
| | <u>AASHTO density</u> | | |
| 10 | Under floors, steps, pavings, etc. | m3 | 4 |
| 11 | Backfilling to trenches, holes, etc. | m3 | 7 |
| | <u>Compaction of surfaces</u> | | |
| 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 | 12 |
| 13 | Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 10 |
| 14 | 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 | 15 |
| | <u>Prescribed density tests on filling</u> | | |
| 15 | Modified AASHTO Density tests | No | 4 |
| Carried Forward | | | R |
| Section No. 11 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SOIL POISONING</u> | | | |
| <u>Soil insecticide</u> | | | |
| 16 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 14 |
| 17 | To bottom of concrete aprons | m2 | 15 |
| 18 | To bottoms and sides of trenches, etc. | m2 | 22 |
| Carried Forward to Summary of Section No. 11 | | | R |
| Section No. 11 | | | |
| Bill No. 1 | | | |
| EARTHWORKS | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.3</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 2 | |
| 2 | Ditto, but surface bed in pit | m3 | 1 | |
| 3 | 2Aprons cast in panels | m3 | 1 | |
| 4 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 1 | |
| 5 | Thickening down apron on edge 110mm deep x 200mm wide | m | 1 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 6 | Slabs | m3 | 2 | |
| | <u>CONCRETE SUNDRIES</u> | | | |
| | <u>Finishing top surfaces of concrete smooth with a wood float</u> | | | |
| 7 | Aprons and pavings to falls | m2 | 20 | |
| | Carried Forward | | R | |
| | Section No. 11 | | | |
| | Bill No. 2 | | | |
| | CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|----|
| <u>TEST CUBES</u> | | | |
| 8 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 4 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 9 | Surface beds, slabs, etc. | m2 | 24 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 10 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 23 |
| | <u>Permanent formwork to soffits:</u> | | |
| 11 | Slabs propped up not exceeding 1.5m high | m2 | 3 |
| 12 | Leave or form 500mm diameter opening in top of floor slab | No | 4 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 13 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 24 |
| Carried Forward to Summary of Section No. 11 | | | R |
| Section No. 11 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.4</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 11 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 5 |
| 2 | One brick walls in pit | m2 | 26 |
| 3 | Half brick corbelling in pit | m | 19 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 4 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 3 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 47 |
| 7 | Half brickwork for face brickwork in beamfilling | m2 | 2 |
| 8 | Fair raking and cutting | m | 11 |
| Carried Forward | | | R |
| Section No. 11 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|-----|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 5 |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 4 |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 4 |
| <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 58 |
| 13 | 150mm Wide reinforcement built in horizontally | m | 130 |
| | <u>Turning pieces</u> | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 5 |
| | <u>Galvanised wire ties etc</u> | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 14 |
| | <u>Prestressed fabricated lintels</u> | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 9 |
| | <u>Ventillation bricks</u> | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 6 |
| Carried Forward to Summary of Section No. 11 | | | R |
| Section No. 11 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.6</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 27 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 14 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 5 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 3 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 2 | |
| 7 | Ditto ,for shoe | No | 1 | |
| | Carried Forward to Summary of Section No. 11 | | | |
| | Section No. 11 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|---|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 3 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 11 | | | | R |
| Section No. 11 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| Brought Forward | | | R |
|---|---|----|---|
| | <u>"Union" or similar approved</u> | | |
| 6 | 75 x 150mm Natural anodised aluminium plate with Grade R ymbol | No | 1 |
| | <u>"Vaal Paragon" or other approved</u> | | |
| 7 | 32mm Type 9 back stainless steel side grab rail 800mm long plugged | No | 1 |
| 8 | 32mm Type 8 back stainless steel side grab rail 900mm long plugged | No | 1 |
| <u>BATHROOM FITTINGS</u> | | | |
| | <u>"Kimberley-Clark" or Simlilar</u> | | |
| 9 | "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder | No | 4 |
| | <u>Sundries</u> | | |
| 10 | Brushed stainless steel She bin approximately 330 x 280 x 180mm plugged | No | 2 |
| Carried Forward to Summary of Section No. 11 | | | R |
| Section No. 11 | | | |
| Bill No. 7 | | | |
| IRONMONGERY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|---|
| <u>Cage,etc</u> | | | |
| 8 | She bin cages ,to fit 330 x 280 x180mm width, she bin to be able to open including pad locking mechanism, complete, etc | No | 2 |
| Carried Forward to Summary of Section No. 11 | | | R |
| Section No. 11 | | | |
| Bill No. 8 | | | |
| METALWORK | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----|
| | <u>"Vaal" or equal approved</u> | | |
| 8 | Vitreous china "Junior" 104° outlet washdown pan (code 751300), matching Junior Elite 6 litre cistern (code 7116LL) complete with lid and fitments, and Junior Jazz seat (code 8532Z000) or equal approved | No | 3 |
| 9 | "Protea Junior Paraplegic" code 7502 vitreous china pan with "Walcro 103 (LHS) HT" or equal approved flushing valve with elbow lever complete with lid, fitments and heavy duty seat | No | 2 |
| 10 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 |
| <u>TAPS, VALVES ETC</u> | | | |
| | <u>"Cobra watertech" or equal approved</u> | | |
| 11 | 15mm 503-21 CP elbow action pillar tap | No | 1 |
| 12 | 15mm gate valve | No | 6 |
| <u>WASTE UNIONS, ETC</u> | | | |
| 13 | 32mm "301CP" Basin waste union | No | 1 |
| <u>TRAPS, ETC</u> | | | |
| | <u>"Marley"</u> | | |
| 14 | 32 x 50mm Deep seal "P" or "S" trap | No | 2 |
| <u>SANITARY PLUMBING</u> | | | |
| | <u>uPVC pipes</u> | | |
| 15 | 50mm Pipes | m | 40 |
| Carried Forward | | | R |
| Section No. 11 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|--|-------------------------------|----|------|---|
| <u>Extra over uPVC pipes for fittings</u> | | | | |
| 16 | 50mm Bend | No | 10 | |
| 17 | 50 mm Junction | No | 10 | |
| 18 | 50mm Access junction | No | 8 | |
| 19 | 50mm Access bend | No | 8 | |
| 20 | 50mm Access reducing junction | m | 8 | |
| 21 | 50mm "GI Two-way" vent valve | No | 8 | |
| <u>WATER SUPPLY</u> | | | | |
| <u>Class 0 copper pipes</u> | | | | |
| 22 | 15 mm Pipes | m | 51 | |
| 23 | 15mm Pipes chased in walls | m | 35 | |
| <u>Extra over class 0 copper pipes for capillary fittings</u> | | | | |
| 24 | 15mm Fittings | No | 20 | |
| <u>Copper overflow and service pipes</u> | | | | |
| 25 | 15mm Service pipe 350mm girth | No | 1 | |
| <u>Sundries</u> | | | | |
| 26 | Testing water pipe system | | Item | |
| Carried Forward to Summary of Section No. 11 | | | | R |
| Section No. 11 | | | | |
| Bill No. 10 | | | | |
| PLUMBING AND DRAINAGE | | | | |
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| Bill No | SECTION SUMMARY - BUILDING WORKS - GRDF4 WATERBORNE 4 SEATS | | Page No | Amount |
|--|---|--|------------|--------|
| | | | | |
| 1 | EARTHWORKS | | 231 | |
| 2 | CONCRETE, FORMWORK AND REINFORCEMENT | | 233 | |
| 3 | MASONRY | | 236 | |
| 4 | WATERPROOFING | | 237 | |
| 5 | ROOF COVERINGS | | 238 | |
| 6 | CARPENTRY AND JOINERY | | 240 | |
| 7 | IRONMONGERY | | 242 | |
| 8 | METALWORK | | 244 | |
| 9 | IN SITU FINISHES | | 245 | |
| 10 | PLUMBING AND DRAINAGE | | 248 | |
| 11 | GLAZING | | 249 | |
| 12 | PAINTWORK | | 250 | |
| Carried to Final Summary | | | | R |
| Section No. 11 KUTLO CONSULTING ENGINEERS | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>BILL NO.2</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc. | m2 | 95 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 52 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 5 | |
| 4 | Pit | m3 | 15 | |
| 5 | For aprons thickening | m3 | 1 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 6 | Soft rock | m3 | 1 | |
| 7 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 8 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 30 | |
| | Carried Forward | | R | |
| | Section No. 12 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|------|
| | <u>Risk of collapse of excavations</u> | | |
| 9 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 20 |
| | <u>Keeping excavations free of water.</u> | | |
| 10 | Keeping excavations free of water other than subterranean water | | Item |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | |
| 11 | Under floors, steps, pavings, etc. | m3 | 4 |
| 12 | Backfilling to trenches, holes, etc. | m3 | 7 |
| | <u>Compaction of surfaces</u> | | |
| 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 | 12 |
| 14 | Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 10 |
| 15 | 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 | 15 |
| | <u>Prescribed density tests on filling</u> | | |
| 16 | Modified AASHTO Density tests | No | 4 |
| Carried Forward | | | R |
| Section No. 12 Bill No. 1 EARTHWORKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SOIL POISONING</u> | | | |
| <u>Soil insecticide</u> | | | |
| 17 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 14 |
| 18 | To bottom of concrete aprons | m2 | 15 |
| 19 | To bottoms and sides of trenches, etc. | m2 | 22 |
| Carried Forward to Summary of Section No. 12 | | | R |
| Section No. 12 | | | |
| Bill No. 1 | | | |
| EARTHWORKS | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.3</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 2 | |
| 2 | Ditto, but surface bed in pit | m3 | 1 | |
| 3 | 2Aprons cast in panels | m3 | 1 | |
| 4 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 1 | |
| 5 | Thickening down apron on edge 110mm deep x 200mm wide | m | 1 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 6 | Slabs | m3 | 2 | |
| | <u>CONCRETE SUNDRIES</u> | | | |
| | <u>Finishing top surfaces of concrete smooth with a wood float</u> | | | |
| 7 | Aprons and pavings to falls | m2 | 20 | |
| | Carried Forward | | | |
| | Section No. 12 | | | |
| | Bill No. 2 | | | |
| | CONCRETE, FORMWORK AND REINFORCEMENT | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|----------|
| <u>TEST CUBES</u> | | | |
| 8 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 4 |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | |
| 9 | Surface beds, slabs, etc. | m2 | 24 |
| <u>FORMWORK</u> | | | |
| | <u>Rough formwork to sides:</u> | | |
| 10 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 23 |
| | <u>Permanent formwork to soffits:</u> | | |
| 11 | Slabs propped up not exceeding 1.5m high | m2 | 3 |
| 12 | Leave or form 500mm diameter opening in top of floor slab | No | 4 |
| <u>REINFORCEMENT</u> | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | |
| 13 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 24 |
| Carried Forward to Summary of Section No. 12 | | | R |
| Section No. 12 | | | |
| Bill No. 2 | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | |
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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <u>BILL NO.4</u> | | | |
| <u>BRICKWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>BRICKWORK</u> | | | |
| Sizes in descriptions | | | |
| Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick | | | |
| Hollow walls etc | | | |
| Descriptions of hollow walls shall be deemed to include leaving every 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 "Brixéal" bitumen emulsion waterproofing coating. | | | |
| User note: The above preamble generally applies for works in hot and humid coastal areas | | | |
| Face bricks | | | |
| Bricks shall be ordered timeously to obtain uniformity in size and colour | | | |
| <u>Pointing</u> | | | |
| Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc | | | |
| Carried Forward | | | R |
| Section No. 12 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>SAMPLES</u> | | | |
| Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6 | | | |
| <u>FOUNDATIONS</u> | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | |
| 1 | One brick walls | m2 | 5 |
| 2 | One brick walls in pit | m2 | 26 |
| 3 | 4Half brick corbelling in pit | m | 19 |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 4 |
| <u>SUPERSTRUCTURE</u> | | | |
| <u>FACE BRICKWORK</u> | | | |
| <u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | |
| 5 | Half brickwork for face brick walls pointed both sides | m2 | 3 |
| 6 | One brickwork for face brick walls pointed both sides | m2 | 47 |
| 7 | Half brickwork for face brickwork in beamfilling | m2 | 2 |
| 8 | Fair raking and cutting | m | 11 |
| Carried Forward | | | R |
| Section No. 12 Bill No. 3 MASONRY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|----|-----|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 5 |
| 10 | Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 4 |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 4 |
| <u>BRICKWORK SUNDRIES</u> | | | |
| | <u>Brick reinforcement</u> | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 58 |
| 13 | 150mm Wide reinforcement built in horizontally | m | 130 |
| | <u>Turning pieces</u> | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 5 |
| | <u>Galvanised wire ties etc</u> | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 14 |
| | <u>Prestressed fabricated lintels</u> | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 9 |
| | <u>Ventillation bricks</u> | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 6 |
| Carried Forward to Summary of Section No. 12 | | | R |
| Section No. 12 | | | |
| Bill No. 3 | | | |
| MASONRY | | | |
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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>BILL NO.6</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 27 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 14 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>Aluzink seamless metal gutters:</u> | | | |
| 3 | 100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets | m | 5 | |
| 4 | Extra over for closed ends | No | 2 | |
| 5 | 75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall | m | 3 | |
| 6 | Extra over rainwater pipe for eaves offset | No | 2 | |
| 7 | Ditto ,for shoe | No | 1 | |
| | Carried Forward to Summary of Section No. 12 | | | |
| | Section No. 12 | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|---|--|----|---|---|
| <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 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 (D1) | No | 1 | |
| 9 | 44mm Purpose made Framed batten door 813 x 1 883mm 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 (door raised by 120mm from bottom) (D2) | No | 4 | |
| 10 | 44mm Framed ledged and braced batten door 900 x 2032mm high of 44 x 100mm top rail and stiles, 20 x 100mm bottom rail and 20 x 100mm middle ledge and braces, filled in with 20 x 76mm tongued and grooved V-jointed one side boarding and covered on other side with 4mm plywood with hardwood veneer to match door let into and including rebates all round and splayed 50 x 76mm weather bar (D3) | No | 1 | |
| Carried Forward to Summary of Section No. 12 | | | | R |
| Section No. 12 | | | | |
| Bill No. 6 | | | | |
| CARPENTRY AND JOINERY | | | | |
| KUTLO CONSULTING ENGINEERS | | | | |

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| Brought Forward | | | R |
|---|---|----|---|
| <u>"Kimberley-Clark" or Similar</u> | | | |
| 6 | "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder | No | 4 |
| <u>Sundries</u> | | | |
| 7 | Brushed stainless steel She bin approximately 330 x 280 x 180mm plugged | No | 1 |
| Carried Forward to Summary of Section No. 12 | | | R |
| Section No. 12 | | | |
| Bill No. 7 | | | |
| IRONMONGERY | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--|---|----|---|
| <u>Cage,etc</u> | | | |
| 8 | She bin cages ,to fit 330 x 280 x180mm width, she bin to be able to open including pad locking mechanism, complete, etc | No | 2 |
| Carried Forward to Summary of Section No. 12 | | | R |
| Section No. 12 | | | |
| Bill No. 8 | | | |
| METALWORK | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|---|
| | <u>"Vaal" or equal approved</u> | | |
| 8 | Vitreous china "Junior" 104° outlet washdown pan (code 751300), matching Junior Elite 6 litre cistern (code 7116LL) complete with lid and fitments, and Junior Jazz seat (code 8532Z000) or equal approved | No | 4 |
| 9 | 450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts | No | 1 |
| <u>PCC WASH TROUGH</u> | | | |
| 10 | Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 2 |
| <u>TAPS, VALVES ETC</u> | | | |
| | <u>"Cobra watertech" or equal approved</u> | | |
| 11 | 15mm 3314ST CP basin swivel pillar tap | No | 1 |
| 12 | 15mm 503-21 CP elbow action pillar tap | No | 1 |
| 13 | 15mm push button | No | 4 |
| 14 | 15mm gate valve | No | 5 |
| <u>WASTE UNIONS, ETC</u> | | | |
| 15 | 32mm "301CP" Basin waste union | No | 1 |
| <u>TRAPS, ETC</u> | | | |
| | <u>"Marley"</u> | | |
| 16 | 32 x 50mm Deep seal "P" or "S" trap | No | 2 |
| <u>SANITARY PLUMBING</u> | | | |
| Carried Forward | | | R |
| Section No. 12 Bill No. 10 PLUMBING AND DRAINAGE KUTLO CONSULTING ENGINEERS | | | |

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| | Brought Forward | | | R |
|----|--|----|------|---|
| | <u>uPVC pipes</u> | | | |
| 17 | 50mm Pipes | m | 40 | |
| | <u>Extra over uPVC pipes for fittings</u> | | | |
| 18 | 50mm Bend | No | 7 | |
| 19 | 50 mm Junction | No | 8 | |
| 20 | 50mm Access junction | No | 8 | |
| 21 | 50mm Access bend | No | 8 | |
| 22 | 50mm Access reducing junction | m | 7 | |
| 23 | 50mm "GI Two-way" vent valve | No | 7 | |
| | <u>WATER SUPPLY</u> | | | |
| | <u>Class 0 copper pipes</u> | | | |
| 24 | 15 mm Pipes | m | 66 | |
| 25 | 15mm Pipes chased in walls | m | 45 | |
| | <u>Extra over class 0 copper pipes for capillary fittings</u> | | | |
| 26 | 15mm Fittings | No | 20 | |
| | <u>Copper overflow and service pipes</u> | | | |
| 27 | 15mm Service pipe 350mm girth | No | 1 | |
| | <u>Sundries</u> | | | |
| 28 | Testing water pipe system | | Item | |
| | Carried Forward to Summary of Section No. 12 | | | R |
| | Section No. 12 | | | |
| | Bill No. 10 | | | |
| | PLUMBING AND DRAINAGE | | | |
| | KUTLO CONSULTING ENGINEERS | | | |

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| Bill No | SECTION SUMMARY - BUILDING WORKS - GRDF4 WATERBORNE 4 SEATS | | | Amount |
|--|---|------------|--|--------|
| | | Page No | | |
| 1 | EARTHWORKS | 254 | | |
| 2 | CONCRETE, FORMWORK AND REINFORCEMENT | 256 | | |
| 3 | MASONRY | 259 | | |
| 4 | WATERPROOFING | 260 | | |
| 5 | ROOF COVERINGS | 261 | | |
| 6 | CARPENTRY AND JOINERY | 263 | | |
| 7 | IRONMONGERY | 265 | | |
| 8 | METALWORK | 267 | | |
| 9 | IN SITU FINISHES | 268 | | |
| 10 | PLUMBING AND DRAINAGE | 271 | | |
| 11 | GLAZING | 272 | | |
| 12 | PAINTWORK | 273 | | |
| Carried to Final Summary | | | | R |
| Section No. 12 KUTLO CONSULTING ENGINEERS | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SEWER DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>Class 400 uPVC pipes for underground installations</u> | | | |
| 1 | 160mm Pipes in and including trenches not exceeding 1m deep | m | 20 | |
| 2 | 160mm Pipes in and including trenches exceeding 1m and not exceeding 2m deep | m | 160 | |
| | <u>Extra over 160mm uPVC pipes for fittings</u> | | | |
| 3 | Bend | No | 12 | |
| 4 | Access bend | No | 8 | |
| 5 | Access junction | No | 8 | |
| 6 | Rodding eye | No | 8 | |
| | <u>uPVC channels</u> | | | |
| 7 | 160mm Half-round channels in bottoms of inspection chambers | m | 6 | |
| 8 | 160mm Half round channel junctions in bottoms of inspection chambers | No | 9 | |
| 9 | 160mm Half round channel bends in bottoms of inspection chambers | No | 12 | |
| | <u>Precast concrete circular inspection chambers (covers elsewhere)</u> | | | |
| 10 | Inspection chamber 1500mm diameter exceeding 1500mm and not exceeding 1750mm deep internally (covers elsewhere measured) | No | 1 | |
| 11 | Inspection chamber 1800mm diameter exceeding 1750mm and not exceeding 2000mm deep internally (covers elsewhere measured) | No | 2 | |
| | Carried Forward | | R | |
| | Section No. 13 Bill No. 1 SEWER SYSTEM KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|------|----------|
| 12 | Inspection chamber 1950mm diameter exceeding 1750mm and not exceeding 2000mm deep internally (covers elsewhere measured) | No | 1 |
| | <u>Covers etc</u> | | |
| 13 | 300 x 300 x 50mm Precast concrete inspection eye marker slab set in ground | No | 4 |
| 14 | Type 4 cast iron manhole cover and frame | No | 4 |
| 15 | Lifting key for manhole cover | No | 4 |
| | <u>Sundries</u> | | |
| 16 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock | m3 | 14 |
| 17 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock | m3 | 8 |
| 18 | Selected sand filling from the excavations in bedding under and filling around pipes | m3 | 3 |
| 19 | Testing sewer pipe system | Item | |
| Carried Forward to Summary of Section No. 13 | | | R |
| Section No. 13 | | | |
| Bill No. 1 | | | |
| SEWER SYSTEM | | | |
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| | | | | | |
|--|------------|-----------------|---|--|---|
| | | Brought Forward | | | R |
| 12 | 50mm Bush | No | 4 | | |
| 13 | 50mm Elbow | No | 4 | | |
| Carried Forward to Summary of Section No. 13 | | | | | R |
| Section No. 13 | | | | | |
| Bill No. 2 | | | | | |
| WATER SUPPLY | | | | | |
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| Brought Forward | | | R |
|---|---|----|-----|
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted as specified</u> | | |
| 7 | Subbase course of G5 material in 150mm layer, compacted to 93% Mod AASHTO density "Labour Intensive" | m3 | 152 |
| | <u>Compaction of surfaces</u> | | |
| 8 | Compaction of ground surface under pavings, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density | m2 | 505 |
| | <u>Additional tests required by the engineer (Refer to Supplementary Preambles for contractor's tests: SABS 1200)</u> | | |
| 9 | "Modified AASHTO Density" test | No | 5 |
| | <u>Paving of type 60mm interlocking precast concrete paving blocks with butt joints including 50mm thick river sand bed with sand swept into joints, including preparation of ground or filling</u> | | |
| 10 | Paving to parking areas etc to falls, including necessary straight edge blocks | m2 | 505 |
| | <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> | | |
| 11 | Under paving etc | m2 | 505 |
| | <u>Kerbs, etc</u> | | |
| Carried Forward | | | R |
| Section No. 13 Bill No. 3 PAVED WALKWAY KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | |
|---|---|--------|
| | <u>Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing</u> | |
| 12 | Fig 12 kerb with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc | m 450 |
| <u>STEEL HANDRAILS, BALUSTRADES, ETC</u> | | |
| | <u>Welded handrails to walkways and ramps</u> | |
| 13 | Horizontal welded balustrading 1 000mm high formed of 50 x 50 x 3mm thick square hollow section top and bottom rails, with uprights formed of 50 x 50 x 3mm thick square hollow section steel at 986mm centres, the balustrading with two cross members formed of 50 x 25 x 3mm thick hollow section and welded to 75 x 75 x 3mm thick columns at 1 500mm centres | m 40 |
| 14 | Raking welded balustrading 1 000mm high formed of 50 x 50 x 3mm thick square hollow section top and bottom rails, with uprights formed of 50 x 50 x 3mm thick square hollow section steel at 986mm centres, the balustrading with two cross members formed of 50 x 25 x 3mm thick hollow section and welded to 75 x 75 x 3mm thick columns at 1 500mm centres | m 50 |
| 15 | 100 x 100 x 5mm Thick base plate, four times holed and welded to bottom of posts (e/m) | No 50 |
| 16 | Extra over last for closed end to 50 x 50mm rails | No 10 |
| 17 | M16 x 100mm expansion bolt | No 100 |
| 18 | Painting to steel handrails and balustrades (both sides measured) | m2 90 |

Carried Forward to Summary of Section No. 13

Section No. 13
 Bill No. 3
 PAVED WALKWAY
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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO. 6</u> | | | |
| | <u>BILL NO. 1</u> | | | |
| | <u>STORMWATER CONTROL</u> | | | |
| | <u>SITE CLEARANCE ETC</u> | | | |
| | <u>Site clearance</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc | m2 | 200 | |
| | <u>BULK EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth</u> | | | |
| 2 | Excavate in earth below natural, reduced or made up ground level , not exceeding 2m deep, to reduced levels under aprons, etc | m3 | 30 | |
| | <u>Extra over bulk excavation in earth for excavation in</u> | | | |
| 3 | Soft rock | m3 | 5 | |
| 4 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away</u> | | | |
| 5 | Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor | m3 | 15 | |
| | <u>Keeping excavations free of water</u> | | | |
| 6 | Keeping excavations free of all water other than subterranean water | Item | | |
| | Carried Forward | | R | |
| | Section No. 13 Bill No. 4 STORMWATER CONTROL KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|----------|
| <u>Compaction of surfaces</u> | | | |
| 7 | Re-compaction of disturbed formation levels, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 200 |
| <u>Soil poisoning</u> | | | |
| 8 | Treat soil under concrete rain water channels, etc. with an approved insecticide solution at the rate not less than 2 litre per 1 m2 | m2 | 200 |
| <u>Unreinforced Concrete</u> | | | |
| <u>25Mpa/19mm concrete</u> | | | |
| 9 | 25Mpa/19mm Mass concrete in V-shaped channel 2000mm wide x 75mm thick with rounded salient edges and finished on exposed surfaces with 2: 1 cement mortar, with and including one layer of ref.193 mesh reinforcement, laid to falls in panels not exceeding 2,0m long with 12mm bitumen impregnated sailboard movement joints with exposed edges raked out for a depth of 10mm and filled with bituminous compound including all necessary excavations and formwork | m | 200 |
| 10 | Extra for fair open end | No | 10 |
| 11 | Extra for fair stopped end | No | 10 |
| 12 | Extra for angle intersection | No | 7 |
| 13 | Extra over for forming 100mm thick spreader fanning out to 1200mm width at furthest end with seven (7No) concrete bricks cast in as brick-on-end diffusers in three rows including working off concrete to a smooth finish | No | 1 |
| Carried Forward to Summary of Section No. 13 | | | R |
| Section No. 13 | | | |
| Bill No. 4 | | | |
| STORMWATER CONTROL | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|---|------|-----|
| | <u>Keeping excavations free of water</u> | | |
| 7 | Keeping excavations free of all water other than subterranean water | Item | |
| | <u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u> | | |
| 8 | Backfilling to trenches, holes, etc | m3 | 20 |
| <u>SOIL POISONING</u> | | | |
| | <u>Soil poisoning mixed in accordance to supplier's specifications</u> | | |
| 9 | To bottoms and sides of trenches, etc. | m2 | 162 |
| <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| <u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u> | | | |
| | <u>25MPa/19mm concrete</u> | | |
| 10 | Strip footings | m3 | 8 |
| 11 | Platform surface beds cast in panels | m3 | 3 |
| <u>FINISHING TOP SURFACE OF CONCRETE</u> | | | |
| | <u>Finishing top surfaces of concrete smooth with a wood float/steel trowel</u> | | |
| 12 | Surface beds, slabs, etc (rainwater tanks) | m2 | 33 |
| <u>REINFORCEMENT</u> | | | |
| Carried Forward | | | R |
| Section No. 13 Bill No. 5 RAINWATER WATER TANKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|------------------------|--|------|-----|
| | <u>Fabric reinforcement</u> | | |
| 13 | Type 295 fabric reinforcement in concrete surface beds, slabs, etc | m2 | 33 |
| | <u>TEST CUBES</u> | | |
| 14 | Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith. | Sets | 16 |
| | <u>BRICKWORK</u> | | |
| | <u>Brickwork of NFP bricks in class II mortar</u> | | |
| 15 | One brick walls | m2 | 43 |
| | <u>BRICKWORK SUNDRIES</u> | | |
| | <u>Brickwork reinforcement</u> | | |
| 16 | 150mm Wide reinforcement built in horizontally | m | 216 |
| | <u>FACE BRICKWORK</u> | | |
| | <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | |
| 17 | Extra over brickwork for face brickwork | m2 | 17 |
| | <u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R3 500.00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u> | | |
| 18 | Coping on top of one brick wall | m | 65 |
| | <u>WATERPROOFING</u> | | |
| | Carried Forward | | R |
| | Section No. 13 | | |
| | Bill No. 5 | | |
| | RAINWATER WATER TANKS | | |
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| Brought Forward | | | R |
|--|---|----|----|
| | <u>One layer of 375 micron Consol Plastic Brikgrip DPC"</u> <u>embossed damp proof course</u> | | |
| 19 | In walls | m2 | 15 |
| | <u>One layer of 250 micron "Consol Plastic USB Green"</u> <u>waterproof sheeting sealed at laps with "Gunplas</u> <u>Pressure Sensitive Tape"</u> | | |
| 20 | Under surface beds | m2 | 33 |
| <u>WATER SUPPLIES</u> | | | |
| | <u>Galvanized medium normalized mild steel piping</u> | | |
| 21 | 25mm Pipes laid in and including trenches not exceeding 1m deep | m | 40 |
| 22 | 50mm Pipes laid in and including trenches not exceeding 1m deep | m | 60 |
| | <u>Extra over galvanised mild steel water supply pipes for fittings:</u> | | |
| 23 | 25mm Fittings. | No | 20 |
| 24 | 50mm Elbows. | No | 20 |
| 25 | 50mm Union. | No | 20 |
| 26 | 50mm Reducing bush. | No | 20 |
| 27 | 15mm "Cobra Ref. 108LK" brass hose biptap. | No | 10 |
| Carried Forward | | | R |
| Section No. 13 Bill No. 5 RAINWATER WATER TANKS KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | | R |
|---|---|----|------|---|
| <u>25Mpa/19mm Concrete</u> | | | | |
| 9 | Blinding | m3 | 4 | |
| 10 | Bases | m3 | 8 | |
| <u>Finishing top surfaces of concrete smooth with a wood float</u> | | | | |
| 11 | On top of bases | m2 | 10 | |
| <u>"Jojo" or equal approved SANS PVC water tanks</u> | | | | |
| 12 | 10 000 Litre plastic water tank fitted onto and secured to tank platforms | No | 4 | |
| <u>Structural Steel</u> | | | | |
| <u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u> | | | | |
| 13 | 80 x 80mm x 6mm Angle-section | t | 2.74 | |
| <u>Welded beams in single lengths with flat bearer and connection plates, bolted to steel</u> | | | | |
| 14 | 30 x 30mm x 6mm Flat-section | t | 1.47 | |
| 15 | 40 x 40mm x 5mm Angle -section | t | 1.86 | |
| 16 | 125 x 50 x 20 x 2mm Lipped channel-section | t | 1.85 | |
| 17 | 125 x 75 x 8mm Flat-section | t | 0.97 | |
| <u>Bolts to columns, beams, etc</u> | | | | |
| 18 | High tensile bolts | t | 0.36 | |
| Carried Forward | | | | R |
| Section No. 13 Bill No. 6 WATER TANK STANDS KUTLO CONSULTING ENGINEERS | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO. 6</u> | | | |
| | <u>BILL NO. 3</u> | | | |
| | <u>UPGRADING AND EQUIPPING OF EXISTING BOREHOLE</u> | | | |
| | <u>Upgrading of existing borehole</u> | | | |
| 1 | Check, inspect, upgrading, servicing of existing borehole and leave in good working order. | No | 2 | |
| | <u>PUMPS AND PIPING</u> | | | |
| | <u>Submersible pumpset and appurtenant fittings as mar specification</u> | | | |
| 2 | Submersible pump with a duty of: Total head of 40m and flow of 1.6l/s complete with integral non-return valve, flow inducer (cooling) sleeve, complete with a suitable electric motor and automatic control box | No | 2 | |
| | <u>Class 10 HDPe type IV pipes</u> | | | |
| 3 | 40mm Pipes laid in and including trenches not exceeding 1m deep | m | 240 | |
| | <u>Extra over Class 10 HDPe type IV pipes for fittings</u> | | | |
| 4 | 40mm pressed steel base plate with 26mm diameter hole drilled for dipper tube | No | 2 | |
| 5 | 40mm DN MGI barrel nipple | No | 16 | |
| 6 | 40mm DN x 90° MGI female elbow | No | 2 | |
| 7 | 40 x 25 DN MGI reducing socket | No | 2 | |
| | Carried Forward | | R | |
| | Section No. 13 Bill No. 8 UPGRADING OF EXISTING BOREHOLE KUTLO CONSULTING ENGINEERS | | | |

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| | Brought Forward | | | R |
|----|---|----|----|---|
| 8 | 25mm DN 'Invensys' / 'Kent' domestic water meter (refer to plan HSD1001) | No | 2 | |
| 9 | 40 x 25 DN MGI reducing bush | No | 2 | |
| 10 | 40mm cobra brass Ball valve | No | 24 | |
| | <u>Booster pump and appurtenant items</u> | | | |
| 11 | Supply and install a booster pump complete with control box and lockable steel pump cage with the followings specifications: Flow (Q)=2.3l/s ; Total dynamic head=45m | No | 2 | |
| | <u>Submersible pumpset</u> | | | |
| 12 | Submersible pumpset and appurtenant fittings as per manufacturer specifications | No | 2 | |
| | <u>Lockable steel cage</u> | | | |
| 13 | Lockable steel cage for booster borehole | No | 2 | |
| | <u>ELECTRICAL PUMP CONTROL PANEL (AUTOMATIC)</u> | | | |
| | <u>Single Phase Control Panel : 0 - 5.6kw</u> | | | |
| | <u>Switch Gear</u> | | | |
| 14 | 60 Amp T/Pole Isolator ABB 5Ka | No | 2 | |
| 15 | 60 Amp S/Pole Earth Leakage ABB 5Ka | No | 2 | |
| 16 | 20 Amp T/Pole Circuit Breaker ABB 3Ka | No | 2 | |
| 17 | 25 Amp S/Pole C/B ABB 5Ka | No | 2 | |
| 18 | Surge arrestor ABB | No | 2 | |
| | Carried Forward | | | R |
| | Section No. 13 Bill No. 8 UPGRADING OF EXISTING BOREHOLE KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|--------------------------------|---|------|------------|
| <u>Wires and accessories</u> | | | |
| 19 | Wires and accessories | Item | |
| 20 | Pin Lugs 4mm ² Yellow | m | 24 |
| 21 | Self Trapping Screws | Item | |
| <u>Control gear</u> | | | |
| 22 | 1 x Float switch | No | 2 |
| 23 | 1000mm long x 22mm dia galvanised pipes | No | 8 |
| 24 | Capture | No | 2 |
| 25 | 20mm Ø CCG Box | No | 2 |
| 26 | Bends Bosal | No | 8 |
| 27 | Coupling Bosal 20mm | No | 10 |
| 28 | Bolts M 8 x 25mm nut & washer | No | 2 |
| 29 | Connector strip 5 Amp | No | 2 |
| 30 | Connector strip 30 Amp | No | 2 |
| <u>Reverse Osmosis System</u> | | | |
| 31 | Allow R350 000.00 (Three hundred and fifty thousand rands) for reverse osmosis system including shelter, testing, etc by specialist | Item | 350 000.00 |
| 32 | Allow for profit on above | Item | |
| 33 | Allow for attendance on the above | Item | |
| Carried Forward | | | R |
| Section No. 13 | | | |
| Bill No. 8 | | | |
| UPGRADING OF EXISTING BOREHOLE | | | |
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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO. 6</u> | | | |
| | <u>BILL NO. 8</u> | | | |
| | <u>FENCING</u> | | | |
| | <u>FENCING</u> | | | |
| | <u>Welded Mesh Fencing</u> | | | |
| | <u>The following in welded mesh fencing</u> | | | |
| 1 | 1800mm High welded mesh fencing formed of 2.5 x 50mm galvanized welded mesh in long lengths, with three strands of 1.6mm galvanized steel wire at 150mm centres to and including four strings of 2.5mm galvanized steel binding wire stringed through holes and secured to straining bolls or posts, 10mm diameter galvanized straining eye boll 300mm long with nut and washer sawn off and bent after straining, 3 150mm high, 50mm diameter x 2.8mm round mild steel intermediates posts with cover cap. Corner post formed of 100mm diameter x 3mm thick x 3150mm overall length steel post and 50mm diameter x 2.6mm steel stays and including planting post into 300 x 300 x 300mm deep 20MPa concrete complete with all earthworks, trimmings and fixing | m | 150 | |
| 2 | 1800mm High and 900mm wide swing gate from 32mm diameter framework, all tube hot dipped galvanised after fabrication, with 50 x 50 x 2.5mm hot dipped galvanised welded mesh infill, fixed with heavy duty hinges to 100mm diameter x 3.5mm HDG corner posts, 2400mm long with standard type cap, 150 x 150 x 3mm base plate and casting into and including 500 x 500 x 600mm deep 20MPa concrete in ground, each corner post with off 32mm diameter x 2.5mm HDG stays at 45 degree angle, 50 x 50 x 2mm baseplate and casting into and including 300 x 300 x 300mm deep 20MPa concrete complete with all earthworks, trimmings and fixing | No | 1 | |
| | Carried Forward | | R | |
| | Section No. 13 Bill No. 9 FENCING KUTLO CONSULTING ENGINEERS | | | |

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| Brought Forward | | | R |
|---|--|----|-------|
| <u>The following in steel palisade fencing</u> | | | |
| 3 | 1800mm High palisade fencing comprising 40 x 40 x 2mm x 1750mm angle pales bolted at 175mm centres using M8 anti vandal nuts and round headed bolts onto 50 x 50 x 3mm angle iron crossbars bolted onto 76 x 76 x 2mm square tube posts 2400mm long by means of 40 x 5.00mm flat bar fish plate and M12 anti-vandal nuts and bolts and including planting posts into 600 x 600 x 600mm deep 25MPa concrete complete with all earthworks, trimmings and fixing. | m | 200 |
| 4 | Pedestrian gate 1 500mm x 1 800mm High formed from 40 x 40 x 2mm welded angle iron paling; 50 x 25 x 1.6mm rectangular tubing frame; gate posts formed of 75 x 75 x 2mm steel square tubing 2400mm overall length planted into 450 x 450 x 600mm concrete base (all concrete work to engineer's specification). | No | 2 |
| 5 | Sliding gate 5 000mm x 1 800mm High formed from 40 x 40 x 2mm welded angle iron paling; 76 x 38 x 2mm rectangular tubing frame; two 80mm roller coaster wheels fitted with ball bearing; track formed of 12mm steel rod welded to 40 x 40 x 5mm angle iron fixed into a 300 x 400 x 5000mm concrete base; gate posts formed of 75 x 75 x 2mm steel square tubing 2400mm overall length planted into 450 x 450 x 600mm concrete base (all concrete work to engineer's specification). | No | 1 |
| <u>PAINTWORK</u> | | | |
| <u>On metal</u> | | | |
| <u>Undercoat and minimum 2 coats gloss enamel</u> | | | |
| 6 | Prime, apply one coat undercoat and two coats of high gloss enamel paint on steel (measured over the full flat area of both sides according specification) | m2 | 1 008 |
| Carried Forward to Summary of Section No. 13 | | | R |
| Section No. 13 | | | |
| Bill No. 9 | | | |
| FENCING | | | |
| KUTLO CONSULTING ENGINEERS | | | |

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