



**DEVELOPMENT BANK OF SOUTHERN AFRICA**

**RENOVATIONS AND REFURBISHMENT AT  
GOA KGANYA PRIMARY SCHOOL IN THE  
NORTH WEST PROVINCE**

**TENDER NO. RFP041/2022**

**UNPRICED BILLS OF QUANTITIES**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 1</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>PRELIMINARIES</u></b></p>			
<p><b><u>PRELIMINARIES</u></b></p>			
<p>All prices/rates to be net, excluding Value Added Tax</p>			
<p><b><u>General</u></b></p>			
<p>i) The agreement is to be the JBCC Series 2000 Principal Building Agreement (Edition 4.1) prepared by the Joint Building Contracts Committee, March 2005</p>			
<p>ii) The preliminaries are to be the JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee, March 2005 edition and shall be deemed to be incorporated herein</p>			
<p>iv) 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</p>			
<p>iii) Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary</p>			
<p>v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")</p>			
<p>v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")</p>			
<p><b>Carried to Collection</b></p>			
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- vi) 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, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time
- vii) Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"

**A1 DEFINITIONS AND INTERPRETATION**

Clause 1.0 Clause 1.1 Definition of "Commencement Date" is added:

**"Commencement date"** means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect

Clause 1.1 Definition of **"Construction Guarantee"** is amended by replacing it with the following:

**"Construction guarantee"** means guarantee at call obtained by the contractor from an institution approved by the **employer** in terms of the **employer's** construction guarantee form as selected in the schedule

Clause 1.1 Definition of "Construction Period" is amended by replacing it with the following:

**"Construction period"** means the period commencing on the commencement date and ending on the date of practical completion

Clause 1.1 Definition of **"Corrupt Practice"** is added:

**"Corrupt Practice"** means the offering , giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution

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Clause 1.1 Definition of "**Fraudulent Practice**" is added:

**"Fraudulent Practice"** means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open

Clause 1.1 Definition of "**Interest**" is amended by replacing it with the following:

**"Interest"** means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

Clause 1.1 Definition of "**Principal Agent**" is amended by replacing it with the following:

**"Principal Agent"** means the person or entity appointed by the employer and named in the schedule. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by a representative of the employer as named in the schedule.

Clause 1.1 Definition of "**Security**" is amended by replacing it with the following:

**"Security"** means the form of security provided by the employer or contractor, as stated in the schedule, from which the contractor or employer may recover expense or loss

Clause 1.6 is amended by replacing the words "prepaid registered post, telefax or e-mail" with "prepaid registered post or telefax"

Clause 1.6.4 is amended by replacing it with the following:

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1	<p>No clause</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item		
<b><u>OBJECTIVE AND PREPARATION</u></b>				
<b><u>A2 OFFER, ACCEPTANCE AND PERFORMANCE</u></b>				
<b><u>Clause 2.0</u></b>				
2	<p>Fixed:_____ Value related:_____ Time related:_____</p>	Item		
<b><u>A3 DOCUMENTS</u></b>				
<b><u>Clause 3.0</u></b>				
Clause 3.2.1 is amended by replacing "14.1" with "14.0"				
Clause 3.7 is amended by the addition of the following:				
<b>The contractor</b> shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract <b>on the site</b> , to which the <b>employer, principal agent and agents</b> shall have access at all times.				
Clause 3.10 is amended by replacing the second reference to <b>"principal agent"</b> with the word <b>"employer"</b>				
3	<p>Fixed:_____ Value related:_____ Time related:_____</p>	Item		
<b><u>A4 DESIGN RESPONSIBILITY</u></b>				
<b><u>Clause 4.0</u></b>				
Clause 4.3 is amended by replacing it with the following:				
No clause				
4	<p>Fixed:_____ Value related:_____ Time related:_____</p>	Item		
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**A5 EMPLOYERS AGENTS**

**Clause 5.0**

Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8

5 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A6 SITE REPRESENTATIVE**

**Clause 6.0**

6 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A7 COMPLIANCE WITH REGULATIONS**

**Clause 7.0**

Note: A separate clause has been included in Section C: Specific Preliminaries of the **bills of quantities** for the **contractor** to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification

7 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A8 WORKS RISK**

**Clause 8.0**

8 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A9 INDEMNITIES**

**Clause 9.0**

9 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A10 WORKS INSURANCES**

**Clause 10.0**

The **contractor** shall be liable for and hereby indemnifies the employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

General insurances (clause 10

**10.5 Damage to the Works**

Clause 10.0 is amended by the addition of the following clauses

(a) Without in any way limiting the **contractor's** obligations in terms of the contract, the **contractor** shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the **works** and hereby indemnifies and holds harmless the **employer** against any such damage. The **contractor** shall take such precautions and security measures and other steps for the protection and security of the **works** as the **contractor** may deem necessary.

(b) The **contractor** shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**

(c) The employer shall carry the risk of damage to or destruction of the works and material paid for by the employer that is the result of the excepted risks as set out in 10.6

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(d) Where the **employer** bears the risk in terms of this contract, the **contractor** shall, if requested to do so, reinstate any damage or destroyed portions of the **works** and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof

**10.6 Injury to Persons or loss of or damage to Properties**

(a) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable

(b) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable

(c) The contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the employer for the purpose of executing the works until the issue of the certificate of practical completion

(d) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the contractor shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the works has been completed

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(e) The contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the works

**10.7 High risk insurance**

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

**10.7.1 Damage to the works**

The contractor shall, from the commencement date of the works until the date of the certificate of practical completion bear the full risk of and hereby indemnifies and holds harmless the employer against any damage to and/or destruction of the works consequent upon a catastrophic ground movement as mentioned above. The contractor shall take such precautions and security measures and other steps for the protection of the works as he may deem necessary.

**10.7.2 Injury to persons or loss of or damage to property**

The contractor shall be liable for and hereby indemnifies and holds harmless the employer against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above.

The contractor shall be liable for and hereby indemnifies the employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract.

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10.7.3 It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested to do so.

10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole.

10 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A11 LIABILITY INSURANCES**

**Clause 11.0**

11 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A12 EFFECTING INSURANCES**

**Clause 12.0**

12 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A13. No clause**

13 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A14 SECURITY**

**Clause 14.0**

Clauses 14.1 - 14.8 are amended by replacing them with the following:

14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)

14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor

14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5 or 14.6, as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.

14.3 Where security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:

14.3.1 The contractor shall furnish the employer with a cash deposit equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date

14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT), and refund the balance to the contractor

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14.3.3 Within twenty-one (21) calendar days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor

14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor

14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor

14.3.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party

14.4 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:

14.4.1 The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date

14.4.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender

14.4.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring

14.4.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall issue a written demand in terms of the variable construction guarantee

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14.5 Where security as a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:

14.5.1 The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT)

14.5.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion

14.5.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring

14.5.5 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or may do both

14.6 Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) has been selected:

14.6.1 The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date

14.6.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor

14.6.3 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)

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14.6.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both

14.8 Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement

14 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**EXECUTION**

**A15 PREPERATION FOR AND EXECUTION OF THE WORKS**

**Clause 15.0**

Clause 15.1.1 is amended by replacing it with:

No clause

Clause 15.1 is amended by the addition of the following clause:

15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) calendar days of commencement date

Clause 15.2.1 is amended by replacing it with the following clause:

Give the contractor possession of the site within ten (10) working days of the contractor complying with the terms of 15.1.4

15 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A16 ACCESS TO THE WORKS**

**Clause 16.0**

16 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A17 CONTRACT INSTRUCTIONS**

**Clause 17.0**

17 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A18 SETTING OUT OF THE WORKS**

**Clause 18.0**

The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachments

The contractor shall perform tolerance control checks regularly throughout the contract period and report on this at regular interval to the Principal Agent in the approved format. Should the contractor fail to comply with this requirement to the satisfaction of the Principal Agent, progressively as the structure is being constructed, the Employer will commission a Registered Land Surveyor to do so on the Contractor's behalf and at the Contractor's Expense.

18 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A19 ASSIGNMENT**

**Clause 19.0**

19 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A20 NOMINATED SUB-CONTRACTORS**

**Clause 20.0**

Clause 20.1.3 is amended by replacing it with the following:

No Clause

Note: See item B9.1 hereinafter for adjustment of attendance on nominated subcontractors executing work allowed for under provisional sums

20 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A21 SELECTED SUBCONTRACTORS**

**Clause 21.0**

21 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A22 EMPLOYER'S DIRECT CONTRACTORS**

**Clause 22.0**

The Contractor shall allow the direct contractors and employers agents access to the work, allocate reasonable space in the building for storage of their materials, tools and equipment, all to the satisfaction of the Principal Agent. The contractor shall also allow the direct contractors, etc. free of charge, use of their ablution facilities and water and power supply to the and shall in no way hinder or prevent the execution of their works. Attendance may be priced against the relevant specified items in the bills of quantities.

22 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A23 CONTRACTOR'S DOMESTIC SUBCONTRACTORS**

**Clause 23.0**

23 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**COMPLETION**

**A24 PRACTICAL COMPLETION**

**Clause 24.0**

24 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A25 WORK'S COMPLETION**

**Clause 25.0**

25 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A26 FINAL COMPLETION**

**Clause 26.0**

Clause 26.1.2 is amended by inserting # next to 26.1.2

26 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A27 LATENT DEFECTS LIABILITY PERIOD**

**Clause 27.0**

27 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A28 SECTIONAL COMPLETION**

**Clause 28.0**

28 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**A29 REVISION OF DATE FOR PRACTICAL COMPLETION**

**Clause 29.0**

Clause 29.1.1 shall be deemed to be omitted and replaced by the following:

Inclement weather shall be defined as weather in excess of the average rainfall (volume and period) for each calender month over the past ten (10) years as recorded by the nearest commonly recognised weather bureau in the region of the project

It shall be deemed that the contractor has adequately allowed in his programme and tendered rates for expenses which might result from delays due to average or below rainfall as described above

29 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**A30 PENALTY FOR NON-COMPLETION**

**Clause 30.0**

30 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**PAYMENT**

**A31 INTERIM PAYMENT TO THE CONTRACTOR**

**Clause 31.0**

Interim payment to the contractor (clause 31)

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Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"

Clause 31.8 is amended by replacing it with the following two alternative clauses:

**Alternative A**

31.8(A) Where a security is selected in terms of 14.1; 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(A).1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion

31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

31.8(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6

31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate

**Alternative B**

31.8(B) Where security is a payment reduction in terms of 14.7 has been selected, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion.

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31.8(B).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion.

31.8(B).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6

31.8(B).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate.

Clause 31.9 is amended by replacing "seven (7) calender days" with "thirty (30) calender days" and by deleting the words "subject to the contractor giving the employer a tax invoice for the amount due

Clause 31.12 is amended by deleting the following:

Payment shall be subject to the employer giving the contractor a tax invoice for the amount due

**A32 ADJUSTMENT TO THE CONTRACT VALUE**

**Clause 32.0**

Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence: "due to no fault of the contractor"

31 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A33 RECOVERY OF EXPENSE AND LOSS**

**Clause 33.0**

32 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**A34 FINAL ACCOUNT AND FINAL PAYMENT**

**Clause 34.0**

Clause 34.1 is amended by removing # next to 34.1

Clause 34.2 is amended by inserting # next to 34.2

Clause 34.8 is amended by deleting the words "where security as a fixed construction guarantee in terms of 14.4 has been selected or where payment reductions has been applied in terms of 14.7.1"

Clause 34.13 is amended by replacing "seven (7) calendar days" with "thirty (30) calendar days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"

33 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A35 PAYMENT TO OTHER PARTIES**

**Clause 35.0**

34 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**CANCELLATION**

**A36 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT**

**Clause 36.0**

Clause 36.1 is amended by the addition of the following :

36.1.3 refuses or neglects to comply strictly with any of the conditions of contract

36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

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36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract

Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"

Clause 36.0 is amended by the addition of the following clause:

36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

35 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A37 TERMINATION BY EMPLOYER - LOSS AND DAMAGE**

**Clause 37.0**

36 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A37 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE**

**Clause 37.0**

Clause 37.3.5 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)".

Clause 37.0 is amended by the addition of the following clause:

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37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever.

37 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A38 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT**

**Clause 38.0**

Clause 38.5.4 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"  
 Clause 38.0 is amended by the addition of the following clause:

38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever.

38 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**A39 CANCELLATION - CESSATION OF THE WORKS**

**Clause 39.0**

Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one  hundred and twenty (120) working days of completion of such report"

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39 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**DISPUTE**

**A40 DISPUTE SETTLEMENT**

**Clause 40.0**

Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"

Clause 40.6 is amended by removing the reference to: No clause

Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:

Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs

40 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**SUBSTITUTE PROVISIONS**

**A41 STATE CLAUSES**

**Clause 41.0**

41 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**CONTRACT VARIABLES**

**THE SCHEDULE (C1.2 CONTRACT DATA)**

**A42 PRE-TENDER INFORMATION**

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**Clause 42.0**

Tenderers are referred to the notes to tenderers for variables pertaining to this contract.

42 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**A42 POST-TENDER INFORMATION**

**Clause 42.0**

The required post-tender information shall be inserted in the agreement after consultation with the contractor

43 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**SECTION B: JBCC PRELIMINARIES**

**B1.0 DEFINITIONS AND INTERPRETATION**

**B1.1 Definitions and interpretation**

See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section.

44 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B2.0 DOCUMENTS**

**B2.1 Checking of documents**

45 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B2.2 Provisional bills of quantities**

46 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

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**B2.3 Availability of construction documentation**

47 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B2.4 Interests of agents**

48 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B2.5 Priced documents**

49 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B2.6 Tender submission**

Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance (C1.1)".

50 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B3.0 THE SITE**

**B3.1 Defined works area**

The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the Principal Agent on handing over of the site

51 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B3.2 Geotechnical investigation**

52 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B3.3 Inspection of the site**

Tenderers shall complete the Site Inspection Certificate included in the tender documents and return the same with the tender submission

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53 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.4 Existing premises occupied**

54 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.5 Previous work - dimensional accuracy**

55 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.6 Previous work - defects**

56 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.7 Services - known**

57 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.8 Services - unknown**

58 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.9 Protection of trees**

59 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.10 Articles of value**

60 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**B3.11 Inspection of adjoining properties**

61 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

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**B4.0 MANAGEMENT OF CONTRACT**

**B4.1 Management of the works**

62 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B4.2 Programme for the works**

63 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B4.3 Progress meetings**

64 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B4.4 Technical meetings**

65 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B4.5 Labour and plant records**

66 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS**

**B5.1 Samples of materials**

67 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B5.2 Workmanship samples**

68 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B5.3 Shop drawings**

69 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

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**B5.4 Compliance with manufacturers instructions**

70 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B6.0 TEMPORARY WORKS AND PLANT**

**B6.1 Deposits and fees**

71 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B6.2 Enclosure of the works**

72 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B6.3 Advertising**

73 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B6.4 Plant, equipment, sheds and offices**

74 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B6.5 Main notice board**

75 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B6.6 Subcontractors notice board**

76 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B7.0 TEMPORARY SERVICES**

**B7.1 Location**

77 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

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**B7.2 Water**

78 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B7.3 Electricity**

79 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B7.4 Telecommunication facilities**

80 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B7.5 Ablution facilities**

81 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B8.0 PRIME COST AMOUNTS**

**B8.1 Responsibility for prime cost amounts**

82 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**9.0 ATTENDANCE ON N/S SUBCONTRACTORS**

**B9.1 General attendance**

83 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B9.2 Special attendance**

84 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B9.3 Commissioning - fuel, water and electricity**

85 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

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**B10.0 FINANCIAL ASPECTS**

**B10.1 Statutory taxes, duties and levies**

Provision is made in the summary of these bills of quantities for the inclusion of Value Added Tax (VAT)

86 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B10.2 Payment for preliminaries**

87 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B10.3 Adjustment of preliminaries**

Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) working days of taking possession of the site" with "in his priced bills of quantities / lump sum document submitted with his tender offer".

88 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B10.4 Payment certificate cash flow**

89 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B11. GENERAL**

**B11.1 Protection of the works**

90 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B11.2 Protection / isolation of existing / sectionally occupied works**

91 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

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92	<p><b><u>B11.3 Security of the works</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
93	<p><b><u>B11.4 Notice before covering work</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
94	<p><b><u>11.5 Disturbance</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
95	<p><b><u>B11.6 Environmental disturbance</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
96	<p><b><u>B11.7 Works cleaning and clearing</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
97	<p><b><u>B11.8 Vermin</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
98	<p><b><u>B11.9 Overhand work</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
99	<p><b><u>B11.10 Instruction manuals and guarantees</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
100	<p><b><u>B11.11 As built information</u></b>                      Fixed:_____ Value related:_____ Time related:_____</p>	Item		
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101

**B11.12 Tenant installations**

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**B12. SCHEDULE OF VARIABLES**

**B12.1 Schedule of variables**

This schedule contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries.

Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [ ] brackets.

**12.1 PRE TENDER INFORMATION**

**12.1.1 Provisional Bills of Quantities**

[2.2] The quantities are provisional **YES**

**12.1.2 Availability of construction documentation**

[2.3] Construction of documentation is complete **YES**

**12.1.3 Interest of agents**

[2.4] Details: NIL

**12.1.4 Defined works area**

[3.1] Details: The work area will be pointed out to the contractor by the principal agent to the contractor who will sign written acknowledgement therefore before commencing operations.

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**12.1.5 Geotechnical investigation**

A Geotechnical Investigation Report is included in this document.

**12.1.6 Existing premises occupied**

[3.4] Specific requirements: The premises will be in use and occupied during the course of this contract. The contractor shall execute the works in such a manner as will least interfere with the general routine of the occupants of the premises and shall minimise any nuisance from dust, noise or other causes.

**12.1.7 Previous work - dimensional accuracy**

The contractor shall, within reasonable period after taking possession of the site, but not exceeding ten (10) percent of the construction period or twenty (20) working days whichever is the lesser, check existing levels, lines, profiles and the like affecting the works and satisfy himself as to the dimensional accuracy of work previously executed. The contractor shall forthwith notify the principal agent and request a contract instruction regarding any dimensional inaccuracy found in work previously executed

**12.1.8 Previous work - defects**

The contractor on becoming aware of a defect in work previously executed shall forthwith notify the principal agent requesting a contract instruction regarding such defect

**12.1.9 Services - known**

Existing services and points of connection are shown on the site plan or will be pointed out on the site by the principal agent

**12.1.10 Protection of trees**

[3.9] Specific requirements: Only those trees and shrubs indicated as such on the drawings shall be removed or cut back. The remainder of the trees and shrubs shall be left undamaged.

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**12.1.11 Inspection of adjoining properties**

The contractor shall make his own arrangements with the owners of adjoining properties in order to execute the works

**12.1.12 Enclosure of the works**

The contractor shall erect, maintain and remove on completion, hoardings with gantries, fans, safety screens, barriers, access gates, covered gangways and the like as necessary for the enclosure of the works and elements thereof all for the protection of the public and others

**12.1.13 Offices**

The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitable insulated and ventilated, provided with electric lighting, and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times

**12.1.14 Main notice board**

[6.5] Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering.

**12.1.15 Subcontractors' notice board**

[6.6] Specific requirements: NIL

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**12.1.16 Water**

[7.2] Option A (by contractor ) **YES**

Option B (by employer - free of charge) NO

Option C (by b employer - metered) NO

**12.1.17 Electricity**

[7.3] Option A (by contractor) **YES**

Option B (by employer - free of charge) NO

Option C (by b employer - metered)NO

**12.1.18 Telecommunications**

[7.4] Telephone NO

Facsimile NO

E-mail **YES**

**12.1.19 Ablution facilities**

[7.5] Option A (by contractor) **YES**

Option B (by employer - free of charge) NO

Option C (by employer - metered) NO

**12.1.20 Protection of existing/sectionally occupied works**

[11.2] Protection is required **YES**

**12.1.21 Special attendance**

[9.2] Subcontractor (1) details:Subcontractor (2) details:Subcontractor (3) details:Subcontractor (4) details:

**12.1.22 Protection of works**

[11.1] Specific requirements:N/A

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**12.1.23 Disturbance**

[11.5] Specific requirements: The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent.

**12.1.24 Environmental disturbance**

[11.6] Specific requirements: N/A

**12.2 POST-TENDER INFORMATION**

**12.2.1 Payment of preliminaries**

[10.2] Option A (pro-rated) YES/NO

Option B (calculates) YES/NO

**12.2.2 Adjustment of preliminaries**

(10.3) Option A (three categories) YES/NO

Option B (detailed breakdown) YES/NO

**12.2.3 Additional agreed preliminaries items**

Details: N/A

**SECTION C: SPECIFIC PRELIMINARIES**

Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item.

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**C1 CONTRACT DRAWINGS**

The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed

Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent

102 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**C2 GENERAL PREAMBLES**

These tender documents "General Specification (PW 371-A) July 2013" and "Particular Specification (PW 371-B) July 2013" which are both obtainable on Public Works website alternatively a copy can be e-mailed on request from the Quantity Surveyor offices, and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used. No claim arising from brevity of description of items fully described in the said Preambles for Trades will be entertained

Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles

The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles

103 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

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**C3 TRADE NAMES**

Wherever a trade name for any product has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders. If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for.

104 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C4 IMPORTED MATERIALS AND EQUIPMENT**

Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment to be completed by tenderer). Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable).

105 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C5 VIEWING THE SITE IN SECURITY AREAS**

The site is situated in a security area and the tenderer must arrange with the unit commander or other responsible officer to obtain permission to enter the site for tendering purposes.

106 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**C6 COMMENCEMENT OF WORK IN SECURITY AREAS**

As the works fall within a security area the contractor must give the unit commander or other responsible officer notice before commencement of the works. Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractor's account.

107 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C7 ENTRANCE PERMITS TO SECURITY AREAS**

As the works fall within a security area the contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Defence Force, Police or chief security officer.

108 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C8 SECURITY CHECK OF PERSONNEL**

The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified. In the event of the principal agent requesting the removal of a person or persons from the works for security reasons, the contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the works and the site and/or any document or information relating to the works .

109 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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**C9 PROHIBITION OF TAKING PHOTOGRAPHS**

The contractor shall obtain prior authorisation from the employer for the making of any sketches or the taking of any photographs of any site, installation, building or civil works belonging to the employer and shall ensure that all personnel, subcontractors and other persons entering the site shall comply with this requirement as well.

110 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C10 HIV/AIDS AWARENESS**

It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document. Provision for pricing of HIV/AIDS awareness is made under the two items below hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained

The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of Clause A 31 of "□Section 1: Preliminaries (Section A)" or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment

**C10.1 AWARENESS CHAMPION**

Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification.

**Carried to Collection**

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111	Fixed:_____ Value related:_____ Time related:_____	Item	
<b><u>C10.2 AWARENESS WORKSHOPS</u></b>			
Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification.			
112	Fixed:_____ Value related:_____ Time related:_____	Item	
<b><u>C10.3 POSTERS, BOOKLETS, VIDEOS, ETC.</u></b>			
Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification.			
113	Fixed:_____ Value related:_____ Time related:_____	Item	
<b><u>C10.4 ACCESS TO CONDOMS</u></b>			
Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification.			
114	Fixed:_____ Value related:_____ Time related:_____	Item	
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Section No. 1 Section 1: Preliminaries Bill No. 1 Preliminaries <b>REPAIRS &amp; RENOVATIONS</b>			

**C10.5 CO-OPERATION OF CONTRACT FOR COST MANAGEMENT**

It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The principal agent undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedures to be implemented and the contractor shall attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures, as necessary, to all subcontractors

115 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**C10.6 MONITORING**

Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification.

116 Fixed:\_\_\_\_\_ Value related:\_\_\_\_\_ Time related:\_\_\_\_\_

Item

**C11 OCCUPATIONAL HEALTH AND SAFETY ACT**

The contractor shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

**Carried to Collection**

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The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

117 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C11.1 OCCUPATIONAL HEALTH AND SAFETY MEASURES IN WORKPLACES COVID-19 (C19 OHS)**

The contractor shall comply with all the requirements set out in the COVID-19 Health and Safety Baseline Specification as contained within these tender documents and 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) in particular Hazardous Biological Agents Regulations governing workplaces in relation to Coronavirus Disease 2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in Workplace COVID-19 (C19 OHS), 2020.

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**REPAIRS & RENOVATIONS**

The contractor must take note that compliance with the COVID-19 Health and Safety Baseline Specification as contained within these tender documents and 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) in particular Hazardous Biological Agents Regulations governing workplaces in relation to Coronavirus Disease 2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in Workplace COVID-19 (C19 OHS), 2020 is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Provision for pricing of the COVID-19 Health and Safety Baseline Specification and Occupational Health and Safety Act in particular Hazardous Biological Agents Regulations governing workplaces in relation to Corona virus Disease 2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in Workplace COVID-19 (C19 OHS), 2020 is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

118 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C12 REPORTING BY CONTRACTOR**

The contractor is required to complete the attached Contractors Monthly Report which is to be submitted together with the contractors payment claim. Payment of the contractor is conditional on this information being accurate and timeously provided.

119 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

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**C13 LOCAL LABOUR AND BUILDING MATERIALS**

**C13.1 GENERAL**

Allow for monthly submission of proof of employment of local skilled and unskilled labour to the principal agent.

It is a general requirement of this contract that persons normally resident in the locality of the works (local labour) be given preference for employment on the contract. Should adequate and appropriate labour not be available within the locality, other labour may be subject to satisfactory proof being provided that every reasonable endeavour has been made to employ local labour. The contractor shall identify the local community leaders with the purpose of negotiating with them regarding the utilisation of local labour in the construction process. The contractor shall furthermore give preference, wherever possible to the employment of single heads of households, women and youth. The contractor shall, in general, maximise the involvement of the local community.

120 Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

Item

**C13.2 LOCAL BUILDING MATERIALS**

Preference shall be given to the supply of materials produced or manufactured in the North West Province provided that:

- a) Such materials comply in all respects with the specific requirements of PW371 specification
- b) The availability of such materials shall not adversely affect the desired progress of the specific works
- c) The use of such materials shall not constitute grounds for any claim for increased cost in respect thereof

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**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO.2</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>DEMOLITIONS</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>REMOVAL OF EXISTING WORK:</u></b></p>			
<p>NATURE OF WORK: Tenderers are advised to visit the site and to satisfy themselves as to the nature and extent of the work to be done and provide in their tenders any items not specifically mentioned which they may deem necessary for the proper completion of the work.</p>			
<p>DIMENSIONS The Contractor is advised to take all dimensions affecting the existing buildings on the site, as he will be held solely responsible for all new work being of the correct size.</p>			
<p>PIPES, ETC Special care is to be taken not to interfere unnecessary with any supply pipes or other piping that may be met with and found necessary to disconnect or cut, are to be effectively stopped off and any new connections that may be necessary are to be made with proper fittings and to the satisfaction of the Principal Agent to whom due notice must be given of any alterations to the existing services.</p>			
<p>PROTECTION In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the buildings. The Contractor must also protect all work not removed such as walls, floors, doors, windows or other joinery, loose and fixed fittings and electrical appliances, etc. from damage during the progress of the work and provide all necessary materials for doing so. The Contractor will be held solely responsible for any</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 2 Section 2: Demolitions Bill No. 1 Bill: Demolitions</p>			
<p><b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

damage to persons or property and for the safety of the structure throughout the whole of this Contract and must make good at his own expense any damage that may occur.

OLD USABLE MATERIALS from the alterations/demolitions are to become the property of the Client. Old materials for re-use are to be carefully removed, stored and protected from injury including making good any damaged or defective parts as required before fixing. Old reusable materials are to be handed over to the Client are to be carefully removed and neatly stacked on site where directed. The remainder of the old materials and all rubbish to be immediately carted away and the site left clean and unencumbered. The Contractor should allow for removing of rubble from site on daily basis, failing which the client might stop the construction until the site has been cleaned. None of the old stock bricks from the pulling down are to be re-used for any new work. Materials to be handed over to the Client should be kept safely and handed over to the School Governing Body or the school principal who shall sign for all materials received.

MATERIALS, ETC The materials to be used and work to be done to be similar in all respects to that described for new work insofar as they concur. All work in making good is to be properly jointed to the existing.

Unless otherwise stated, all usable material from the demolitions should be kept safely and handed over to the school governing body or the school principal who shall sign for all material received.

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**REPAIRS & RENOVATIONS**

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**GENERAL**

**Safety Guide to Asbestos Removal**

Note : The tenderers is drawn to all rules health and Safety rules for managing and disposing of Asbestos. The contractor undertaking to remove asbestos should be a fully licensed asbestos removal specialist to remove the toxic waste safely.

The basic requirements for asbestos removal protection, includes the wearing of a dust mask and a disposable overall.

In taking down and removing existing work, the utmost care is to be taken to avoid any structural or other damage to the remaining portions of the building. Supply and erect suitable and substantial shoring, needling, strutting, barricading, etc., that may be necessary whilst carrying out any portion of the alterations to ensure the stability of the premises during alterations, all to the satisfaction of the architect, and remove when directed. The contractor must also protect all work not removed such as walls, floors, doors, windows, joinery, loose and fixed fittings, electrical appliances, etc., from damage during the progress of the work and provide all necessary materials for so doing.

**TEMPORARY BARRIERS, SCREENS, ETC**

**Temporary barriers, screens, etc including removal**

1	Dust screen 3000mm high formed of suitable timber framing with 375 micron polyethylene sheeting stapled on including corners, ends, etc	m	180
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**DEMOLITIONS, ETC.**

2	Carefully disconnect electrical installation and electrical fittings, under the supervision of a qualified electrician and in consultation with the Electrical Engineer to four classroom block	No	1
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**REPAIRS & RENOVATIONS**

3	Break down and demolish existing building size approximately 40 000mm long x 9 000mm wide x 3 100mm high with two gable ends, including cutting the foundation wall, strip footings, windows, roof covering, etc, removal of surface beds, backfilling, cart away, etc. of all rubble and leaving no visible sign of the building (5 Classroom block)	No	1	
4	Break down and demolish existing carport size approximately 10370mm long x 11810mm wide x 3 100mm high complete including cutting the foundation wall, strip footings, columns, roof covering, etc, removal of surface beds, backfilling, cart away, etc. of all rubble and leaving no visible sign of the carport	No	1	
5	Break down and demolish existing carport size approximately 6220mm long x 5150mm wide x 3 100mm high complete including cutting the foundation wall, strip footings, columns, roof covering, etc, removal of surface beds, backfilling, cart away, etc. of all rubble and leaving no visible sign of the carport	No	1	
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<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 3                  Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block                  Bill No. 1                  Earthworks (Provisional)  <b>REPAIRS &amp; RENOVATIONS</b></p>			R

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	380
2	Holes	m3	25

**Extra over excavations in earth for excavation in:**

3	Soft rock	m3	17
4	Hard rock	m3	5

**Extra over all excavations for carting away**

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	126
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**Risk of collapse of excavations**

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	1,078
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**Keeping excavations free of water**

7	Keeping excavations free of water		Item
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**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>				
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>				
8	Backfilling to trenches, holes, etc	m3	218	
<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 97% Mod AASHTO to density</u></b>				
9	Under floors, steps, pavings, etc	m3	252	
<b><u>Earth filling of G6 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>				
10	Under floors, steps, pavings, etc	m3	217	
<b><u>Coarse river sand filling supplied by the contractor</u></b>				
11	Under floors etc	m3	36	
<b><u>Compaction of surfaces</u></b>				
12	Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	724	
<b><u>Prescribed density tests on filling</u></b>				
13	"Modified AASHTO Density" test	No	30	
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>				
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>				
14	Under floors, etc including forming and poisoning shallow furrows etc and filling in furrows and ramming	m2	724	
15	To bottoms and sides of trenches, etc	m2	1,409	
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<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 3                  Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block                  Bill No. 2                  Concrete, Formwork and Reinforcement  <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	7
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**25 MPa Concrete in:**

2	Plinths, etc	m3	7
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3	Aprons	m3	20
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4	Thickening down the edge of apron 150mm deep ,200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	203
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**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

5	Ramps	m3	8
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6	Footings	m3	42
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7	Holes	m3	6
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8	Stub columns	m3	3
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9	Surface beds	m3	94
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**REPAIRS & RENOVATIONS**

10	Steps, urinal steps, cupboard platforms, etc	m3	3
<b><u>TEST BLOCKS</u></b>			
11	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	30
<b><u>MOVEMENT JOINTS, ETC</u></b>			
<b><u>Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces</u></b>			
12	10mm Joints exceeding 300mm high	m2	293
<b><u>Saw cut joints</u></b>			
13	4 x 30mm Saw cuts in top of concrete	m	213
<b><u>CONCRETE SUNDRIES</u></b>			
<b><u>Finishing top surfaces of concrete with wooden float finish</u></b>			
14	Ramps, etc	m2	24
15	Aprons, etc	m2	203
16	Slabs, etc	m2	54
<b><u>Rough formwork to sides</u></b>			
17	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	34
18	Sides of stub columns	m2	33
<b><u>REINFORCEMENT</u></b>			
<b><u>Mild tensile steel reinforcement to structural concrete work</u></b>			
19	10mm Diameter bars	t	1.00

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 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

**High tensile steel reinforcement to structural concrete work**

20	12mm Diameter bars	t	1.00
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21	16mm Diameter bars	t	1.00
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**Fabric reinforcement**

22	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	724
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23	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	248
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Concrete, Formwork and Reinforcement

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Concrete, Formwork and Reinforcement

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<p><b><u>BILL NO. 3</u></b></p>			
<p><b><u>MASONRY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>BRICKWORK</u></b></p>			
<p><b><u>Sizes in descriptions</u></b></p>			
<p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p>			
<p><b><u>Face bricks</u></b></p>			
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
<p><b><u>Pointing</u></b></p>			
<p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
<p><b><u>Samples</u></b></p>			
<p>Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 3                  Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block                  Bill No. 3                  Masonry  <b>REPAIRS &amp; RENOVATIONS</b></p>			R

<b><u>FOUNDATIONS (PROVISIONAL)</u></b>		
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>		
1	One brick walls	m2 411
<b><u>SUPERSTRUCTURE</u></b>		
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>		
2	One brick walls	m2 926
<b><u>BRICKWORK SUNDRIES</u></b>		
<b><u>Brickwork reinforcement</u></b>		
3	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m 5,035
<b><u>Concrete prestressed fabricated lintels</u></b>		
4	115 x 75mm Lintels in lengths not exceeding 3m	m 2
<b><u>Turning pieces</u></b>		
5	230mm Wide turning piece to lintels etc	m 103
<b><u>Joint forming material in movement joints</u></b>		
6	Movement joint formed of 20mm soft board built in vertically between brickwork (Provisional)	m2 230
<b><u>Galvanised hoop iron cramps, ties, etc</u></b>		
7	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No 191
<b>Carried to Collection</b>		
Section No. 3		
Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block		
Bill No. 3		
Masonry		
<b>REPAIRS &amp; RENOVATIONS</b>		

R

**FACE BRICKWORK**

**Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.**

8	Extra over brickwork for face brickwork	m2	609
9	Extra over brickwork for face brickwork in foundation	m2	138
10	Half brickwall in facing in beamfilling pointed one side	m2	73
<b><u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u></b>			
11	Brick-on-edge header course lintel pointed on both faces and 230mm wide soffit	m	92
12	Cut face brick-on-edge internal window cill, 115mm wide, set horizontal and flush in cement mortar and pointed on top and front edge	m	80
13	Coping on top of one brick wall	m	122

**Carried to Collection**

R

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 3  
 Masonry  
**REPAIRS & RENOVATIONS**

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 3

Masonry

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Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 3

Masonry

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 3</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	56	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	724	
	<b>Carried to Collection</b>			
	Section No. 3 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block Bill No. 4 Waterproofing <b>REPAIRS &amp; RENOVATIONS</b>			R

**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	293
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	213

**Carried to Collection**

R

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 4  
 Waterproofing  
**REPAIRS & RENOVATIONS**

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 4

Waterproofing

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Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 4

Waterproofing

**REPAIRS & RENOVATIONS**

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Item No	<b><u>SECTION NO. 3</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b>Note:</b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	869	
	<b>Carried to Collection</b>			
	Section No. 3 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block Bill No. 5 Roof Coverings, etc			
	<b>REPAIRS &amp; RENOVATIONS</b>			
				R

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,6mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

2	Roof covering with pitch not exceeding 25 degrees	m2	867
3	Ridge capping 562mm girth 3 times bent and notched to suit roof profile	m	73
4	Hip capping 562mm girth 3 times bent and notched to suit roof profile	m	36

**Carried to Collection**

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 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 5  
 Roof Coverings, etc

**REPAIRS & RENOVATIONS**

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Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 5

Roof Coverings, etc

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Bill No. 5

Roof Coverings, etc

**REPAIRS & RENOVATIONS**

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Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 3</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 3                  Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block                  Bill No. 6                  Carpentry and Joinery  <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Carried to Collection**

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 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 6  
 Carpentry and Joinery  
**REPAIRS & RENOVATIONS**

R

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum plasterboard ceilings with branding. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, viz V4, M4, V6, M6, etc.

e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

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Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 6  
 Carpentry and Joinery  
**REPAIRS & RENOVATIONS**

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f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1	1 x 2 Classroom Block approximately 208m <sup>2</sup> measured flat	No	1
2	Classroom Block A approximately 258m <sup>2</sup> measured flat	No	2

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Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
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Carpentry and Joinery  
**REPAIRS & RENOVATIONS**

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	<b><u>Sawn softwood</u></b>			
3	50 x 228mm Bearers bolted to steel columns	m	88	
	<b><u>FASCIAS AND BARGE BOARDS</u></b>			
	<b><u>Nutec board or equal approved</u></b>			
4	225 x 9mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends	m	289	
	<b><u>SKIRTINGS</u></b>			
	<b><u>Wrought meranti</u></b>			
5	19 x 76mm skirting with 19mm quarter round nailed to walls	m	567	
	<b><u>DOORS</u></b>			
	<b><u>NOTE:</u></b>			
	All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dove tailed shape.			
	<b><u>Wrought hardwood framed and batten doors hung to timber frames (elsewhere measured) of 108 x 40mm top rail and stiles, 144x 22mm middle ledge, 220 x 22mm bottom rail, filled with 76 x 22mm tongued and grooved V-jointed battens, with 50 x 50mm hardwood weather bar routed into bottom panel of door</u></b>			
6	40mm Single door, size 813 x 2032mm high	No	12	
	<b>Carried to Collection</b>			
	Section No. 3			
	Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block			
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	Carpentry and Joinery			
	<b>REPAIRS &amp; RENOVATIONS</b>			
				R

7	<p><u>Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames</u></p> <p>40mm Door 813 x 2032mm high</p>	No	1		
8	<p><u>Door grills, etc</u></p> <p><u>Extra over for 300 x 300mm framed opening for aluminium unit (louvre unit elsewhere)</u></p> <p>300 x 300mm Aluminium louvre</p>	No	1		
<p style="text-align: center;"><b>Carried to Collection</b></p> <p>Section No. 3                  Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block                  Bill No. 6                  Carpentry and Joinery  <b>REPAIRS &amp; RENOVATIONS</b></p>					<p>R</p>

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 6

Carpentry and Joinery

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Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 6

Carpentry and Joinery

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 3</u></b></p>			
<p><b><u>BILL NO. 7</u></b></p>			
<p><b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p>			
<p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 3                      Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block                      Bill No. 7                      Ceilings, Partitions and Access Flooring  <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

<b><u>INSULATION, ETC</u></b>					
<b><u>Fibreglass insulation</u></b>					
1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions	m2	724		
<b><u>NAILED UP CEILINGS</u></b>					
<b><u>6.4mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster</u></b>					
2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood brandering at 400mm centres in one direction and around edges where required for fixing cornices, brandering spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	567		
3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	9		
<b><u>6mm "Everite Nutec" or equal approved fibre-cement boards with H-profile primed steel jointing cover strips over joints</u></b>					
4	Ceilings on 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	157		
<b><u>Cornices</u></b>					
5	76mm Gypsum coved trim cornice	m	293		
<b>Carried to Collection</b>					
Section No. 3					
Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block					
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Ceilings, Partitions and Access Flooring					
<b>REPAIRS &amp; RENOVATIONS</b>					

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Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 7

Ceilings, Partitions and Access Flooring

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Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 7

Ceilings, Partitions and Access Flooring

**REPAIRS & RENOVATIONS**

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Item No	<b><u>SECTION NO. 3</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 8</u></b>			
	<b><u>FLOOR COVERINGS, WALL LININGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	NOTE : All materials shall be in colours to be selected by the Representative/Agent and, where applicable, laid to approved patterns			
	<b><u>FLOOR COVERINGS</u></b>			
	<b><u>2,5mm Semi-flexible vinyl floor tiles laid in two colour pattern on cement screed (elsewhere)</u></b>			
1	On floors	m2	567	
	<b><u>POLISH, SEALERS, ETC</u></b>			
	<b><u>Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish complying with SABS 1042, including buffing after application of each coat of polish</u></b>			
2	On vinyl flooring	m2	567	
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	Section No. 3			
	Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block			
	Bill No. 8			
	Floor Coverings, Wall linings, etc			
	<b>REPAIRS &amp; RENOVATIONS</b>			
				R

Item No	<b><u>SECTION NO. 3</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 9</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>CATCHES,CABIN HOOKS, ETC</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	12	
	<b><u>LOCKS</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
2	Code 2252-75 two lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	1	
3	Code 2252-76 three lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	12	
	<b><u>"Cisa" or equal approved</u></b>			
4	CISA solid hardened steel padlock (Code: 28056-55-KD) with a C2000 5 pin keying system with a 55mm body size and supplied keyed different.	No	8	
	<b>Carried to Collection</b>			
	Section No. 3			
	Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block			
	Bill No. 9			
	Ironmongery			
	<b>REPAIRS &amp; RENOVATIONS</b>			
				R

<b><u>SUNDRIES</u></b>			
<b><u>Dorma or equal approved</u></b>			
5	Stainless steel door stop type DDSS-SS-017 plugged	No	12
<b><u>NUMERAL AND NAME PLATES</u></b>			
<b><u>Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tap screwed to steel door frame with chromium plated dome-headed selftapping screws</u></b>			
6	3mm Thick x 32mm wide plate with letters "CLASSROOM 1"	No	1
7	3mm Thick x 32mm wide plate with letters "CLASSROOM 2"	No	1
8	3mm Thick x 32mm wide plate with letters "CLASSROOM 3"	No	1
9	3mm Thick x 32mm wide plate with letters "CLASSROOM 4"	No	1
10	3mm Thick x 32mm wide plate with letters "CLASSROOM 5"	No	1
11	3mm Thick x 32mm wide plate with letters "CLASSROOM 6"	No	1
12	3mm Thick x 32mm wide plate with letters "CLASSROOM 7"	No	1
13	3mm Thick x 32mm wide plate with letters "CLASSROOM 8"	No	1
<b><u>"Union" or equal approved</u></b>			
14	"Code AL5022-E10" Natural anodised aluminium plate with fire extinguisher symbol	No	8
15	"Code AL5022-E10" Natural anodised aluminium plate with fire hose reel symbol	No	3
<b>Carried to Collection</b>			
Section No. 3			
Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block			
Bill No. 9			
Ironmongery			
<b>REPAIRS &amp; RENOVATIONS</b>			

R

**MATS**

**Squeegee or equal approved**

16	1300 x 1300 x 17mm thick floor dust trap mat glued onto screed in and including mat surround fixed with 25 x 25mm aluminium angle plugged to concrete.	No	9
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**STEEL CUPBOARDS**

**Approved steel lockers with standard baked enamel finish**

17	1800 x 900 x 450mm double door lockable stationery steel cupboard with 4 steel shelves fixed to wall with 60mm M8 coach screws, 60mm wall plugs to be provided. Insert screws with steel M8x25mm washers to drilled holes at the back of steel cupboard. Screw steel cupboard to wall plug fitted to wall drilled holes. Colour: Hammertone Grey.	No	9
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**PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC**

**"Vitrex" or equal approved**

18	Parrot Bulletin board aluminium frame or similar approved size 2400 x 1200mm fixed to brickwork. Anodized Aluminium frame pinnable felt notice board with landscape orientation and concealed wall fixing kit included, colour: Laurel Grey, fabric type: Wool Felt with SABS Class 3 fire rating mounted at 1200mm height from FFL. Manufactured in accordance with SANS 1415:2005 all installed by approved installer in accordance with SANS 10186:2000.	No	18
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19	Vitrex or similar approved Model 2100 standard vitreous enamel steel wall mounted educational range chalkboard, overall size 1200 mm high x 2400 mm wide, reference (2109), supplied complete with integral anodised aluminium chalk rail, fixing components and secured in position to brickwork at 1200mm height from FFL. Enamel steel chalkboard surface to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2). All chalkboards to comply with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein.	No	16
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**Carried to Collection**

R

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 9

Ironmongery

**REPAIRS & RENOVATIONS**

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 9

Ironmongery

**COLLECTION**

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R

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 9

Ironmongery

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<b><u>SECTION NO. 3</u></b>			
<b><u>BILL NO. 10</u></b>			
<b><u>METALWORK</u></b>			
<b><u>PREAMBLES</u></b>			
For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<b><u>Descriptions</u></b>			
Descriptions of bolts shall be deemed to include nuts and washers.			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.			
<b><u>STEEL HANDRAILS, BALUSTRADES, ETC</u></b>			
<b><u>Welded balustrading</u></b>			
1	Horizontal balustrades 900mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete (bolts elsewhere), 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	90
<b>Carried to Collection</b>			R
Section No. 3 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block Bill No. 10 Metalwork <b>REPAIRS &amp; RENOVATIONS</b>			

2	Extra over for L-intersection of horizontal balustrades	No	12
3	Extra over for flat closed end	No	12
4	8mm Expansion bolt	No	64
<b><u>SUNDRY METALWORK</u></b>			
<b><u>Welded steel columns, etc.</u></b>			
5	101.6 x 4.5mm CHS column size approximately 4000mm high with 200 x 200 x 10mm thick base plate with four holes drilled and U shaped holding bracket size 100 x 60 x 4,5mm thick formed of rectangular hollow section 200mm long twice drilled	No	25
6	100mm Long x 10mm diameter bolt and nut with two (2) washers	No	50
7	85mm Long x 10mm wide rawl bolt fixed	No	100
<b><u>Welded steel beam, etc</u></b>			
8	152 x 152 x 4.5 SHS beam welded to column	m	86
9	75 x 50 x 6mm mild steel lipped channel welded to beam	m	86
10	10 mm Diameter x 75 mm long expansion bolt	No	54

Carried to Collection

R

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 10  
 Metalwork  
**REPAIRS & RENOVATIONS**

**STEEL GATES, SCREENS, ETC**

**The following in framed and welded mild steel security grille gates including fixing in position complete**

11	Gate frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc. size 813 x 2066mm high overall	No	8
----	--	----	---

**PRESSED STEEL DOOR FRAMES**

**Double rebated pressed frames suitable for one brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf**

12	Frame for door size, 813 x 2 032mm high	No	13
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**MILD STEEL BURGLAR BARS**

**50 x 8mm steel flat bars fixed to brick walls detail as per Architectural drawings attached to these bills of quantities**

13	Window size 1000 x 900mm high	No	7
14	Window size 1 000 x 1 200mm high	No	63

**ALUMINIUM WINDOWS**

**Standard natural anodised window frame, complete with and including ironmongery and 5mm clear safety glazing as per the specifications and window schedules at the back of the bills of quantities**

15	Window size 1000 x 900mm high	No	7
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**Carried to Collection**

R

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 10  
 Metalwork

**REPAIRS & RENOVATIONS**

16	Window size 1 000 x 1 200mm high	No	63
----	----------------------------------	----	----

**ALUMINIUM DOOR LOUVRE**

**Approved fixed louvre door units screwed into timber frames**

17	Purpose made louvre unit for 300 x 300mm high opening	No	3
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**Carried to Collection**

R

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 10  
 Metalwork  
**REPAIRS & RENOVATIONS**

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 10

Metalwork

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Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 10

Metalwork

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 3</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 11</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SCREEDS</u></b>			
	<b><u>1:3 screeds on concrete with trowel float finish</u></b>			
1	30mm Thick on floors and landings to receive vinyl tiles	m2	567	
	<b><u>1:3 Screeds on concrete with wooden float finish</u></b>			
2	30mm Thick on floors and landings to receive ceramic tiles	m2	157	
	<b><u>SELF LEVELLING FLOOR COMPOUND</u></b>			
	<b><u>5mm thick commercial grade self-levelling screed (over 25MPA) and moisture barrier laid in accordance with the manufacturer's instructions</u></b>			
3	On floors	m2	724	
	<b><u>INTERNAL PLASTER</u></b>			
	<b><u>Cement plaster on brickwork</u></b>			
4	On walls	m2	879	
5	On narrow widths	m2	6	
	<b>Carried to Collection</b>			R
	Section No. 3 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block Bill No. 11 Plastering <b>REPAIRS &amp; RENOVATIONS</b>			

**CORNER PROTECTORS, DIVIDING STRIPS,  
ETC.**

6	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	12	
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**Carried to Collection**

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 11  
 Plastering  
**REPAIRS & RENOVATIONS**

R

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 11

Plastering

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Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 11

Plastering

**REPAIRS & RENOVATIONS**

R

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 3</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>TILING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>FLOOR TILING</u></b>			
	<b><u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
1	On floors and landings	m2	157	
2	Skirting 120mm high	m	73	
	<b><u>EDGE TRIMS, ETC</u></b>			
3	Aluminium square edge trim	m	87	
	<b>Carried Forward to Summary of Section No. 3</b>			R
	Section No. 3			
	Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block			
	Bill No. 12			
	Tiling			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 3</u></b>			
	<b><u>BILL NO. 13</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>GUTTERS, DOWNPIPES, ETC.</u></b>			
	<b><u>0.6mm galvanised and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc</u></b>			
1	100 x 100mm eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	289	
2	Extra over 100x 100mm eaves gutter for stopped end	No	12	
3	Extra over downpipe for nozzle	m	28	
	<b>Carried to Collection</b>			R
	Section No. 3 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block Bill No. 13 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b>			

**REPAIRS & RENOVATIONS AT GOAKGANYA PRIMARY**

**EIMS NO: 600100443**

**RFP041/2022**

4	100mm Diameter rainwater downpipe with brackets fixed to brick wall or concrete	m	126
5	Extra over 75mm dia. rainwater pipe for bend	No	28
6	Extra over 75mm rainwater pipe for shoe	No	28

**Carried to Collection**

Section No. 3  
 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
 Bill No. 13  
 Plumbing and Drainage (Provisional)  
**REPAIRS & RENOVATIONS**

R

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 13

Plumbing and Drainage (Provisional)

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Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 13

Plumbing and Drainage (Provisional)

**REPAIRS & RENOVATIONS**

R



**ON FIBRE-CEMENT**

**Prepare, stop and apply two full coats semi-gloss PVA co-polymer paint to comply with SABS Specification No. 643**

3 On ceilings and cornices m2 157

**Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use**

4 On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer m2 133

**ON METAL**

**Prepare and apply two coats bitumen paint**

5 On inside of 100 x 100mm galvanised sheet iron eaves gutter before fixing m2 101

**Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint**

6 On pressed steel door frames m2 26

**Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint**

7 On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area) m2 374

8 On steel members m2 38

9 On steel columns m 75

**ON WOOD**

**Prepare, stop and apply one coat wood primer and two coats PVA paint**

10 On doors m2 3

**Carried to Collection**

R

Section No. 3  
Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block  
Bill No. 14  
Paintwork

**REPAIRS & RENOVATIONS**

<b><u>Prepare and apply three coats varnish</u></b>				
11	On laminated beam	m2	49	
12	On doors	m2	40	
<b><u>One coat pink wood primer and two coats clear polyurethane varnish</u></b>				
13	On skirting, rails, etc. not exceeding 300mm girth	m	567	
<b>Carried to Collection</b>				
Section No. 3 Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block Bill No. 14 Paintwork <b>REPAIRS &amp; RENOVATIONS</b>				R

Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)

Bill No. 14

Paintwork

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Section No. 3

Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block

Bill No. 14

Paintwork

**REPAIRS & RENOVATIONS**

Bill No		Page No	Amount
	Section No. 3		
	Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)		
	<b>SECTION SUMMARY - Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block</b>		
1	Earthworks (Provisional)	57	
2	Concrete, Formwork and Reinforcement	62	
3	Masonry	66	
4	Waterproofing	69	
5	Roof Coverings, etc	72	
6	Carpentry and Joinery	79	
7	Ceilings, Partitions and Access Flooring	82	
8	Floor Coverings, Wall linings, etc	83	
9	Ironmongery	87	
10	Metalwork	92	
11	Plastering	95	
12	Tiling	96	
13	Plumbing and Drainage (Provisional)	99	
14	Paintwork	103	
	<b>Carried to Final Summary</b>		R
	Section No. 3		
	Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block		
	<b>REPAIRS &amp; RENOVATIONS</b>		

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 4</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 4 Section 4: Classroom - Grade R Bill No. 1 Earthworks (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	85
2	Holes	m3	5

**Extra over excavations in earth for excavation in:**

3	Soft rock	m3	6
4	Hard rock	m3	3

**Extra over all excavations for carting away**

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	13
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**Risk of collapse of excavations**

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	257
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**Keeping excavations free of water**

7	Keeping excavations free of water		Item
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**Carried to Collection**

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Section No. 4  
 Section 4: Classroom - Grade R  
 Bill No. 1  
 Earthworks (Provisional)  
**REPAIRS & RENOVATIONS**



Section No. 4

Section 4: Classroom - Grade R

Bill No. 1

Earthworks (Provisional)

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Section No. 4

Section 4: Classroom - Grade R

Bill No. 1

Earthworks (Provisional)

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 4</u></b></p>			
<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 4 Section 4: Classroom - Grade R Bill No. 2 Concrete, Formwork and Reinforcement <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	2
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**25 MPa Concrete in:**

2	Plinths, etc	m3	9
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3	Aprons	m3	5
---	--------	----	---

4	Thickening down the edge of apron 150mm deep ,200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	49
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**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

5	Ramps	m3	6
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6	Footings	m3	12
---	----------	----	----

7	Surface beds	m3	21
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8	Holes	m3	1
---	-------	----	---

9	Stub columns	m3	1
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**Carried to Collection**

R

Section No. 4  
 Section 4: Classroom - Grade R  
 Bill No. 2  
 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

10	Steps, urinal steps, cupboard platforms, etc	m3	1		
	<b><u>TEST BLOCKS</u></b>				
11	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	10		
	<b><u>MOVEMENT JOINTS, ETC</u></b>				
	<b><u>Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces</u></b>				
12	10mm Joints exceeding 300mm high	m	86		
	<b><u>Saw cut joints</u></b>				
13	4 x 30mm Saw cuts in top of concrete	m	30		
	<b><u>CONCRETE SUNDRIES</u></b>				
	<b><u>Finishing top surfaces of concrete with wooden float finish</u></b>				
14	Ramps, etc	m2	8		
15	Aprons, etc	m2	49		
16	Slabs, etc	m2	9		
	<b><u>Rough formwork to sides</u></b>				
17	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	4		
18	Sides of stub columns	m2	7		
	<b><u>REINFORCEMENT</u></b>				
	<b><u>Mild tensile steel reinforcement to structural concrete work</u></b>				
19	10mm Diameter bars	t	1.00		
	<b>Carried to Collection</b>				
	Section No. 4				
	Section 4: Classroom - Grade R				
	Bill No. 2				
	Concrete, Formwork and Reinforcement				
	<b>REPAIRS &amp; RENOVATIONS</b>				
				R	

**High tensile steel reinforcement to structural concrete work**

20	12mm Diameter bars	t	1.00
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21	16mm Diameter bars	t	1.00
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**Fabric reinforcement**

22	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	138
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23	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	67
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**Carried to Collection**

R

Section No. 4  
 Section 4: Classroom - Grade R  
 Bill No. 2  
 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

Section No. 4

Section 4: Classroom - Grade R

Bill No. 2

Concrete, Formwork and Reinforcement

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Section No. 4

Section 4: Classroom - Grade R

Bill No. 2

Concrete, Formwork and Reinforcement

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 4</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Face bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b><u>Pointing</u></b>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<b><u>FOUNDATIONS (PROVISIONAL)</u></b>			
	<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>			
1	Half brick walls	m2	25	
	<b>Carried to Collection</b>			
	Section No. 4 Section 4: Classroom - Grade R Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b>			R

2	One brick walls	m2	110
<b><u>SUPERSTRUCTURE</u></b>			
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>			
3	Half brick walls	m2	80
4	One brick walls	m2	182
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Brickwork reinforcement</u></b>			
5	75mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	265
6	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	993
<b><u>Concrete prestressed fabricated lintels</u></b>			
7	115 x 75mm Lintels in lengths not exceeding 3m	m	7
<b><u>Turning pieces</u></b>			
8	110mm Wide turning piece to lintels, etc	m	14
<b><u>Joint forming material in movement joints</u></b>			
9	Movement joint formed of 20mm soft board built in vertically between brickwork (Provisional)	m2	18
<b><u>Galvanised hoop iron cramps, ties, etc</u></b>			
10	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No	49

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 Masonry  
**REPAIRS & RENOVATIONS**

**FACE BRICKWORK**

**Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.**

11	Extra over brickwork for face brickwork	m2	126
12	Extra over brickwork for face brickwork in foundation	m2	29
13	Half brickwall in facing in beamfilling pointed one side	m2	13
14	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	8

**Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces**

15	Brick-on-edge header course lintel pointed on both faces and 230mm wide soffit	m	16
16	Cut face brick-on-edge internal window cill, 115mm wide, set horizontal and flush in cement mortar and pointed on top and front edge	m	14
17	Coping on top of one brick wall	m	34

**Interlocking paving**

18	60mm Thick double interlocking (DZZ) precast grey coloured concrete paving blocks laid in a herringbone pattern on and including 20mm sand founding layer and covered with sand layer and sweep into joints	m2	6
19	Weed-killing treatment of surface under paving	m2	6
20	15MPa Concrete edge beam size 100 x 100mm High	m	16

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Masonry

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Masonry

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	15	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	138	
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	Section No. 4 Section 4: Classroom - Grade R Bill No. 4 Waterproofing <b>REPAIRS &amp; RENOVATIONS</b>			R

**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	30
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	86

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Waterproofing

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Waterproofing

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 4</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b>Note:</b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber/steel purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	165	
	<b>Carried to Collection</b>			
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**PROFILED METAL SHEETING AND ACCESSORIES**

**0,6mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

2	Roof covering with pitch not exceeding 25 degrees	m2	165
3	Ridge capping 562mm girth 3 times bent and notched to suit roof profile	m	8
4	Hip capping 562mm girth 3 times bent and notched to suit roof profile	m	12

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Roof Coverings, etc

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Roof Coverings, etc

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 4</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 4 Section 4: Classroom - Grade R Bill No. 6 Carpentry and Joinery <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

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Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum pasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc.

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e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

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**REPAIRS & RENOVATIONS**

R

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1	Grade R Classrooms approximately 138m <sup>2</sup> measured flat			Item
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**Sawn softwood**

2	50 x 228mm Bearers bolted to steel columns	m		18
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**FASCIAS AND BARGE BOARDS**

**Nutec board or equal approved**

3	225 x 9mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends	m		59
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**SKIRTINGS**

**Wrought meranti**

4	19 x 76mm skirting with 19mm quarter round nailed to walls	m		86
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**REPAIRS & RENOVATIONS**

**DOORS**

NOTE:

All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dove tailed shape.

**Wrought hardwood framed and batten doors hung to timber frames (elsewhere measured) of 108 x 40mm top rail and stiles, 144x 22mm middle ledge, 220 x 22mm bottom rail, filled with 76 x 22mm tongued and grooved V-jointed battens, with 50 x 50mm hardwood weather bar routed into bottom panel of door**

5	40mm Single door, size 813 x 2032mm high	No	3
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**Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames**

6	40mm Door 813 x 2032mm high	No	6
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7	40mm Door 900 x 2032mm high	No	1
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**Door grills, etc**

**Extra over for 300 x 300mm framed opening for aluminium unit (louvre unit elsewhere)**

8	300 x 300mm Aluminium louvre	No	1
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Carpentry and Joinery

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Bill No. 6

Carpentry and Joinery

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 7</u></b>			
	<b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere			
	<b><u>INSULATION, ETC</u></b>			
	<b><u>Fibreglass insulation</u></b>			
1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions	m2	138	
	<b>Carried to Collection</b>			R
	Section No. 4 Section 4: Classroom - Grade R Bill No. 7 Ceilings, Partitions and Access Flooring <b>REPAIRS &amp; RENOVATIONS</b>			

**NAILED UP CEILINGS**

**6.4mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster**

2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood bandering at 400mm centres in one direction and around edges where required for fixing cornices, bandering spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	138
3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	2

**Cornices**

4	76mm Gypsum coved trim cornice	m	117
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Bill No. 7

Ceilings, Partitions and Access Flooring

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Bill No. 7

Ceilings, Partitions and Access Flooring

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 4</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 8</u></b>			
	<b><u>FLOOR COVERINGS, WALL LININGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	NOTE : All materials shall be in colours to be selected by the Representative/Agent and, where applicable, laid to approved patterns			
	<b><u>FLOOR COVERINGS</u></b>			
	<b><u>2,5mm Semi-flexible vinyl floor tiles laid in two colour pattern on cement screed (elsewhere)</u></b>			
1	On floors	m2	109	
	<b><u>POLISH, SEALERS, ETC</u></b>			
	<b><u>Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish complying with SABS 1042, including buffing after application of each coat of polish</u></b>			
2	On vinyl flooring	m2	109	
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	Bill No. 8			
	Floor Coverings, Wall linings, etc			
	<b>REPAIRS &amp; RENOVATIONS</b>			
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	<b><u>BILL NO. 9</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>CATCHES, CABIN HOOKS, ETC</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	4	
	<b><u>LOCKS</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
2	Code 2252-75 two lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	7	
3	Code 2252-76 three lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	3	
	<b><u>"Cisa" or equal approved</u></b>			
4	CISA solid hardened steel padlock (Code: 28056-55-KD) with a C2000 5 pin keying system with a 55mm body size and supplied keyed different.	No	3	
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<b><u>SUNDRIES</u></b>			
<b><u>Dorma or equal approved</u></b>			
5	Stainless steel door stop type DDSS-SS-017 plugged	No	13
<b><u>NUMERAL AND NAME PLATES</u></b>			
<b><u>Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tap screwed to steel door frame with chromium plated dome-headed selftapping screws</u></b>			
6	3mm Thick x 32mm wide plate with letters "CLASSROOM"	No	1
7	3mm Thick x 32mm wide plate with letters "SICK ROOM"	No	1
<b><u>"Union"or equal approved</u></b>			
8	"Code AL5022-E10" Natural anodised aluminium plate with male symbol	No	1
9	"Code AL5022-E11" Natural anodised aluminium plate with female symbol	No	1
10	"Code AL5066-E14" Natural anodised aluminium plate with paraplegic pictogram	No	1
11	150 x 150mm Stainless steel plate engraved with "Tea" sign (St/Steel)	No	1
12	"Code AL5022-E10" Natural anodised aluminium plate with fire extinguisher symbol	No	1
13	"Code AL5022-E10" Natural anodised aluminium plate with fire hose reel symbol	No	1
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<b>REPAIRS &amp; RENOVATIONS</b>			

**MATS**

**Squeegee or equal approved**

14	1 300 x 1 300 x 17mm thick floor dust trap mat glued onto screed in and including mat surround fixed with 25 x 25mm aluminium angle plugged to concrete.	No	1
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**PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC**

**Carpet pinning boards comprising aluminium frame, pen tray and fixing components included with round plastic corners installed according to manufacturer's details.**

**"Vitrex" or equal approved**

15	Pinning boards size 2400 x 1220mm high fixed to brickwork. Parrot Bulletin board aluminium frame or similar approved 2400 x1200mm Anodized Aluminium frame pinnable felt notice board with landscape orientation and concealed wall fixing kit included, colour: Laurel Grey, fabric type: Wool Felt with SABS Class 3 fire rating mounted at 1200mm height from FFL. Manufactured in accordance with SANS 1415:2005 all installed by approved installer in accordance with SANS 10186:2000.	No	1
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16	Vitrex or similar approved Model 2100 standard vitreous enamel steel wall mounted educational range chalkboard, overall size 1200 mm high x 2400 mm wide, reference (2109), supplied complete with integral anodised aluminium chalk rail, fixing components and secured in position to brickwork at 1200mm height from FFL. Enamel steel chalkboard surface to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2). All chalkboards to comply with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein.	No	2
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Bill No. 9

Ironmongery

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Bill No. 9

Ironmongery

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Descriptions of bolts shall be deemed to include nuts and washers.			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.			
	<b><u>STEEL HANDRAILS, BALUSTRADES, ETC</u></b>			
	<b><u>Welded balustrading</u></b>			
1	Horizontal balustrades 900mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete (bolts elsewhere), 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	19	
2	Extra over for L-intersection of horizontal balustrades	No	4	
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	Section No. 4 Section 4: Classroom - Grade R Bill No. 10 Metalwork <b>REPAIRS &amp; RENOVATIONS</b>			

3	Extra over for flat closed end	No	4
4	80mm Long x 10mm wide rawl bolt fixed	No	32
<b><u>SUNDRY METALWORK</u></b>			
<b><u>Welded steel columns, etc.</u></b>			
5	101.6 x 4.5mm CHS column size approximately 4000mm high with 200 x 200 x 10mm thick base plate with four holes drilled and U shaped holding bracket size 100 x 60 x 4,5mm thick formed of rectangular hollow section 200mm long twice drilled	No	5
6	100mm Long x 10mm diameter bolt and nut with two (2) washers	No	20
7	85mm Long x 10mm wide rawl bolt fixed	No	10
<b><u>Welded steel beam, etc</u></b>			
8	152 x 152 x 4.5 SHS beam welded to column	m	18
9	75 x 50 x 6mm mild steel lipped channel welded to beam	m	18
10	10mm Diameter x 75 mm long expansion bolt	No	10

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Section No. 4  
 Section 4: Classroom - Grade R  
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 Metalwork  
**REPAIRS & RENOVATIONS**

**STEEL GATES, SCREENS, ETC**

**The following in framed and welded mild steel security grille gates including fixing in position complete**

11	Gate frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc. size 813 x 2066mm high overall	No	3
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**PRESSED STEEL DOOR FRAMES**

**Double rebated pressed frames suitable for half brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf**

12	Frame for door size, 813 x 2 032mm high	No	6
13	Frame for door size, 900 x 2 032mm high	No	1

**Double rebated pressed frames suitable for one brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf**

14	Frame for door size, 813 x 2 032mm high	No	3
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**MILD STEEL BURGLAR BARS**

**50 x 8mm steel flat bars fixed to brick walls detail as per Architectural drawings attached to these bills of quantities**

15	Window size 533 x 654mm high	No	2
16	Window size 1000 x 900mm high	No	3

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Section No. 4

Section 4: Classroom - Grade R

Bill No. 10

Metalwork

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Bill No. 10

Metalwork

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 4</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 11</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Plaster on concrete</u></b>			
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work			
	<b><u>SCREEDS</u></b>			
	<b><u>1:3 screeds on concrete with trowel float finish</u></b>			
1	30mm Thick on floors and landings to receive vinyl tiles	m2	109	
	<b><u>1:3 Screeds on concrete with wooden float finish</u></b>			
2	30mm Thick on floors and landings to receive ceramic tiles	m2	29	
	<b><u>SELF LEVELLING FLOOR COMPOUND</u></b>			
	<b><u>5mm thick commercial grade self-levelling screed (over 25MPA) and moisture barrier laid in accordance with the manufacturer's instructions</u></b>			
3	On floors	m2	109	
	<b>Carried to Collection</b>			R
	Section No. 4 Section 4: Classroom - Grade R Bill No. 11 Plastering <b>REPAIRS &amp; RENOVATIONS</b>			

**INTERNAL PLASTER**

**Cement plaster on brickwork**

4	On walls	m2	258
5	On narrow widths	m2	2

**Cement plaster on concrete**

**CORNER PROTECTORS, DIVIDING STRIPS,  
ETC.**

6	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	3
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Bill No. 11

Plastering

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Plastering

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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>TILING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>WALL TILING</u></b>			
	<b><u>200 x 200 x 10mm glazed wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
1	On walls	m2	120	
2	On narrow widths	m2	1	
	<b><u>FLOOR TILING</u></b>			
	<b><u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
3	On floors and landings	m2	29	
4	Skirting 120mm high	m	13	
	<b><u>EDGE TRIMS, ETC</u></b>			
5	Aluminium square edge trim	m	18	
	<b>Carried Forward to Summary of Section No. 4</b>			R
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	Section 4: Classroom - Grade R			
	Bill No. 12			
	Tiling			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 4</u></b></p>			
<p><b><u>BILL NO. 13</u></b></p>			
<p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>uPVC pipes and fittings:</u></b></p>			
<p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p>			
<p><b><u>Copper pipes:</u></b></p>			
<p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be approved by the Architect. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p>			
<p><b><u>Fixing of pipes</u></b></p>			
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 4 Section 4: Classroom - Grade R Bill No. 13 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

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**REPAIRS & RENOVATIONS**

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**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**User note:**

Please note the rate for butt welding is deemed to be included in all fittings

**RAINWATER DISPOSAL**

**GUTTERS, DOWNPIPES, ETC.**

**Commercial and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc**

1	100 x 100mm galvanised section eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	59
2	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	10
3	Extra over 100 x 100 x 0.6mm thick eaves gutter for stopped end	No	4

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4	100mm Diameter rainwater downpipe with brackets fixed to brick wall or concrete	m	45
5	Extra over 100 x 0.6mm rainwater pipe for bend	No	10
6	Extra over 100 x 0.6mm rainwater pipe for shoe	No	10
<b><u>SOIL DRAINAGE</u></b>			
7	Excavation not exceeding 1m deep for drain trenches	m3	30
8	Excavation exceeding 1m and not exceeding 2m deep for drain trenches	m3	30
9	Backfilling to drain trenches compacted to 93% Mod AASHTO density	m3	30
10	Selected sand filling from the excavations in bedding under and filling around pipes	m3	15
<b><u>Extra over bulk excavation in earth for excavation in</u></b>			
11	Soft rock	m3	3
12	Hard rock	m3	1
<b><u>HDPE pipe</u></b>			
<b><u>Supply mains pipe, bed, lay joint, bed and test sewer pipes with thermal welded joints:</u></b>			
13	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	30
14	110mm Pipes laid in trenches (trenches elsewhere)	m	20
<b><u>Extra over HDPE pipes for fittings</u></b>			
15	110mm Bend	No	4
16	110mm Junction	No	3
17	110mm Access bend	No	2
18	110mm Access junction	No	2

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**REPAIRS & RENOVATIONS**



**TAPS, VALVES, ETC**

**Cobra Watertech of equal approved**

29	Chrome plated sink mixer with aerated swivel outlet mounted on the sink. All items to be fully fitted with all necessary plumbing accessories.	No	1
30	Chrome plated basin mixer with aerated swivel outlet mounted on the basin. All items to be fully fitted with all necessary plumbing accessories.	No	5
31	15 x 350mm CP flexible connector	No	5
32	20mm Full way stop cock	No	10

**SANITARY PLUMBING**

**HDPE pipes**

33	50mm Pipes	m	50
34	50mm Pipes chased into brick walls	m	30
35	110mm Pipes	m	30

**Extra over HDPE pipes for fittings**

36	50mm Bend	No	12
37	50mm Access bend	No	12
38	50mm Junction	No	12
39	50mm Access junction	No	6
40	110mm Bend	No	10
41	110mm Access bend	No	3
42	110mm Socket	No	3
43	110mm Junction	No	3

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**REPAIRS & RENOVATIONS**

44	110mm Reducing junction	No	3
45	110mm Access junction	No	3
46	110mm Two-way vent valve	No	3
47	110mm Pan connector	No	3
	<b><u>Sundries</u></b>		
48	Testing water pipe system		Item
	<b><u>WATER SUPPLIES</u></b>		
	<b><u>Class "O" copper pipes:</u></b>		
49	15mm Pipes chased in brickwork	m	55
50	22mm Pipes chased in brickwork	m	60
51	28mm Pipes	m	30
	<b><u>Extra over class "O" copper pipes for capillary fittings</u></b>		
52	15mm Fittings	No	12
53	22mm Fittings	No	14
54	28mm Fittings	No	8
	<b><u>Copper flexible service pipes</u></b>		
55	15mm Service pipe 340mm girth	No	1
	<b><u>Sundries</u></b>		
56	80mm Meter and valve box including brick chamber below not exceeding 1mm deep internally	No	1

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**REPAIRS & RENOVATIONS**

**SLEEVES**

**HDPE sleeves for pipes not exceeding 100mm diameter**

57	Sleeve not exceeding 250mm long	No	5
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**HDPE sleeves for pipes exceeding 100mm and not exceeding 200mm diameter**

58	Sleeve not exceeding 250mm long	No	5
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**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 4</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 14</u></b>			
	<b><u>GLAZING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>MIRRORS</u></b>			
	<b><u>Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with foam backing strip all round to plugs in walls</u></b>			
1	6mm "GG" or equal approved quality polished glass mirror 600 x 450mm high with polished edges fixed to wall with four 35mm round nose chromium plated mirror screws	No	5	
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	Section No. 4 Section 4: Classroom - Grade R Bill No. 14 Glazing <b>REPAIRS &amp; RENOVATIONS</b>			

Item No	<b><u>SECTION NO. 4</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 15</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>PAINTWORK, ETC TO NEW WORK</u></b>			
	<b><u>ON FLOATED PLASTER</u></b>			
	<b><u>Prepare, stop and apply one coat masonry primer and two coats acrylic PVA paint</u></b>			
1	On internal plastered walls	m2	258	
	<b><u>ON PLASTERBOARD</u></b>			
	<b><u>Prepare, stop and apply two full coats semi-gloss PVA co-polymer paint to comply with SABS Specification No. 643</u></b>			
2	On ceilings and cornices	m2	138	
	<b><u>ON FIBRE-CEMENT</u></b>			
	<b><u>Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use</u></b>			
3	On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	22	
	<b>Carried to Collection</b>			
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	Paintwork			
	<b>REPAIRS &amp; RENOVATIONS</b>			
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<b><u>ON METAL</u></b>				
<b><u>Prepare and apply two coats bitumen paint</u></b>				
4	On inside of 100 x 100mm galvanised sheet iron eaves gutter before fixing	m2	17	
<b><u>Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint</u></b>				
5	On pressed steel door frames	m2	24	
<b><u>Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint</u></b>				
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	81	
7	On steel members	m2	38	
8	On steel columns	m	15	
<b><u>ON WOOD</u></b>				
<b><u>Prepare, stop and apply one coat wood primer and two coats PVA paint</u></b>				
9	On doors	m2	23	
<b><u>Prepare and apply three coats varnish</u></b>				
10	On laminated beam	m2	10	
11	On doors	m2	10	
<b><u>One coat pink wood primer and two coats clear polyurethane varnish</u></b>				
12	On skirting, rails, etc. not exceeding 300mm girth	m	86	
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**REPAIRS & RENOVATIONS**

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<p><b><u>SECTION NO. 5</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 5 Section 5: Administration Block Bill No. 1 Earthworks (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>			R

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	218
2	Holes	m3	9

**Extra over excavations in earth for excavation in:**

3	Soft rock	m3	15
4	Hard rock	m3	7

**Extra over all excavations for carting away**

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	52
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**Risk of collapse of excavations**

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	591
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**Keeping excavations free of water**

7	Keeping excavations free of water		Item
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 Section 5: Administration Block  
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 Earthworks (Provisional)  
**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>				
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>				
8	Backfilling to trenches, holes, etc	m3	139	
<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 97% Mod AASHTO to density</u></b>				
9	Under floors, steps, pavings, etc	m3	109	
<b><u>Earth filling of G6 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>				
10	Under floors, steps, pavings, etc	m3	104	
<b><u>Coarse river sand filling supplied by the contractor</u></b>				
11	Under floors etc	m3	17	
<b><u>Compaction of surfaces</u></b>				
12	Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	346	
<b><u>Prescribed density tests on filling</u></b>				
13	"Modified AASHTO Density" test	No	20	
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>				
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>				
14	Under floors, etc including forming and poisoning shallow furrows etc and filling in furrows and ramming	m2	346	
15	To bottoms and sides of trenches, etc	m2	174	
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Section No. 5 Section 5: Administration Block Bill No. 1 Earthworks (Provisional) <b>REPAIRS &amp; RENOVATIONS</b>				R

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Earthworks (Provisional)

**REPAIRS & RENOVATIONS**

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<p><b><u>SECTION NO. 5</u></b></p>			
<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 5 Section 5: Administration Block Bill No. 2 Concrete, Formwork and Reinforcement <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	2
---	----------	----	---

**25 MPa Concrete in:**

2	Plinths, etc	m3	2
3	Aprons	m3	9
4	Thickening down the edge of apron 150mm deep ,200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	85

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

5	Ramps	m3	3
6	Footings	m3	34
7	Surface beds	m3	52
8	Holes	m3	2
9	Stub columns	m3	1

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Section No. 5  
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 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

10	Slabs	m3	2
11	Steps, urinal steps, cupboard platforms, etc	m3	2
<b><u>TEST BLOCKS</u></b>			
12	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	15
<b><u>MOVEMENT JOINTS, ETC</u></b>			
<b><u>Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces</u></b>			
13	10mm Joints exceeding 300mm high	m	265
<b><u>Saw cut joints</u></b>			
14	4 x 30mm Saw cuts in top of concrete	m	91
<b><u>CONCRETE SUNDRIES</u></b>			
<b><u>Finishing top surfaces of concrete with wooden float finish</u></b>			
15	Ramps, etc	m2	12
16	Aprons, etc	m2	85
17	Slabs, etc	m2	9
<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u></b>			
<b><u>Smooth formwork to sides</u></b>			
18	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	6
19	Sides of stub columns	m2	12

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 Section 5: Administration Block  
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 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

	<b><u>Smooth formwork to soffits</u></b>				
20	Isolated beams propped up not exceeding 3,5m high	m2	6		
	<b><u>REINFORCEMENT</u></b>				
	<b><u>Mild tensile steel reinforcement to structural concrete work</u></b>				
21	10mm Diameter bars	t	1.00		
	<b><u>High tensile steel reinforcement to structural concrete work</u></b>				
22	12mm Diameter bars	t	1.00		
23	16mm Diameter bars	t	1.00		
	<b><u>Fabric reinforcement</u></b>				
24	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	346		
25	Mesh reinforcement with mesh reference number 395 laid in concrete slabs, etc with 300mm wide side and end laps (measured net)	m2	6		
26	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	642		
	<b>Carried to Collection</b>				
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Section 5: Administration Block

Bill No. 2

Concrete, Formwork and Reinforcement

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Bill No. 2

Concrete, Formwork and Reinforcement

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 5</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Face bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b><u>Pointing</u></b>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<b><u>FOUNDATIONS (PROVISIONAL)</u></b>			
	<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>			
1	Half brick walls	m2	108	
2	One brick walls	m2	152	
	<b>Carried to Collection</b>			R
	Section No. 5 Section 5: Administration Block Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b>			

3	One and half brick walls	m2	18		
<b><u>SUPERSTRUCTURE</u></b>					
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>					
4	Half brick walls	m2	234		
5	One brick walls	m2	303		
6	One and half brick walls	m2	34		
<b><u>BRICKWORK SUNDRIES</u></b>					
<b><u>Brickwork reinforcement</u></b>					
7	75mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	1,064		
8	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	1,577		
<b><u>Concrete prestressed fabricated lintels</u></b>					
9	115 x 75mm Lintels in lengths not exceeding 3m	m	19		
<b><u>Turning pieces</u></b>					
10	110mm Wide turning piece to lintels, etc	m	29		
11	220mm Wide turning piece to lintels, etc	m	10		
<b><u>Joint forming material in movement joints</u></b>					
12	Movement joint formed of 20mm soft board built in vertically between brickwork (Provisional)	m2	38		
<b><u>Galvanised hoop iron cramps, ties, etc</u></b>					
13	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No	85		
<b>Carried to Collection</b>					
				R	
Section No. 5 Section 5: Administration Block Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b>					

**FACE BRICKWORK**

**Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.**

14	Extra over brickwork for face brickwork	m2	243
15	Extra over brickwork for face brickwork in foundation	m2	61
16	Half brickwall in facing in beamfilling pointed one side	m2	24
17	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	5

**Brick-on-edge header course coping, sills, etc approved face bricks pointed with recessed joints on all exposed faces**

18	Brick-on-edge header course lintel pointed on both faces and 230mm wide soffit	m	39
19	Cut face brick-on-edge internal window cill, 115mm wide, set horizontal and flush in cement mortar and pointed on top and front edge	m	27
20	Coping on top of one brick wall	m	41

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Masonry

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Section 5: Administration Block

Bill No. 3

Masonry

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 5</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	40	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	346	
	<b>Carried to Collection</b>			
	Section No. 5 Section 5: Administration Block Bill No. 4 Waterproofing <b>REPAIRS &amp; RENOVATIONS</b>			R

**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	91
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	265

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Waterproofing

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Section 5: Administration Block

Bill No. 4

Waterproofing

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 5</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b>Note:</b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber/steel purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	416	
	<b>Carried to Collection</b>			
	Section No. 5 Section 5: Administration Block Bill No. 5 Roof Coverings, etc <b>REPAIRS &amp; RENOVATIONS</b>			R

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,6mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

2	Roof covering with pitch not exceeding 25 degrees	m2	416
3	Ridge capping 562mm girth 3 times bent and notched to suit roof profile	m	24
4	Hip capping 562mm girth 3 times bent and notched to suit roof profile	m	16
5	Valley gutter 462mm girth four times bend	m	4

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Roof Coverings, etc

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Roof Coverings, etc

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 5</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 5 Section 5: Administration Block Bill No. 6 Carpentry and Joinery <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

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**REPAIRS & RENOVATIONS**

Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum pasteboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc.

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e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1 Administration block approximately 346m<sup>2</sup> measured flat

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**REPAIRS & RENOVATIONS**

<b><u>Sawn softwood</u></b>				
2	50 x 228mm laminated beam bolted to steel columns	m	33	
<b><u>FASCIAS AND BARGE BOARDS</u></b>				
<b><u>Nutec board or equal approved</u></b>				
3	10 x 225mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends	m	102	
<b><u>SKIRTINGS</u></b>				
<b><u>Wrought meranti</u></b>				
4	19 x 76mm Skirting with 19mm quarter round nailed to walls	m	255	
<b><u>DOORS</u></b>				
<b><u>NOTE:</u></b>				
All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dove tailed shape.				
<b><u>Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames</u></b>				
5	40mm Door 813 x 2032mm high	No	14	
6	40mm Door 900 x 2032mm high	No	1	
7	40mm Door 1300 x 2032mm high	No	1	
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	<u>Door grills, etc</u>			
	<u>Extra over for 300 x 300mm framed opening for aluminium unit (louvre unit elsewhere)</u>			
8	300 x 300mm Aluminium louvre	No	2	
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Carpentry and Joinery

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Bill No. 6

Carpentry and Joinery

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 7</u></b>			
	<b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere			
	<b><u>INSULATION, ETC</u></b>			
	<b><u>Fibreglass insulation</u></b>			
1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of branderling, etc, all as per manufacturers instructions	m2	346	
	<b>Carried to Collection</b>			
	Section No. 5 Section 5: Administration Block Bill No. 7 Ceilings, Partitions and Access Flooring <b>REPAIRS &amp; RENOVATIONS</b>			R

**NAILED UP CEILINGS**

**6.4mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster**

2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood branderings at 400mm centres in one direction and around edges where required for fixing cornices, branderings spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	287
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3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	4
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**6mm "Everite Nutec" or equal approved fibre-cement boards with H-profile primed steel jointing cover strips over joints**

4	Ceilings on 38 x 38mm branderings at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	59
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**Cornices**

5	76mm Gypsum coved trim cornice	m	329
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Bill No. 7

Ceilings, Partitions and Access Flooring

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Bill No. 7

Ceilings, Partitions and Access Flooring

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 8</u></b>			
	<b><u>FLOOR COVERINGS, WALL LININGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	NOTE : All materials shall be in colours to be selected by the Representative/Agent and, where applicable, laid to approved patterns			
	<b><u>FLOOR COVERINGS</u></b>			
	<b><u>2,5mm Semi-flexible vinyl floor tiles laid in two colour pattern on cement screed (elsewhere)</u></b>			
1	On floors	m2	239	
	<b><u>2,5mm non-slip vinyl floor sheeting laid in two colour pattern on cement screed (elsewhere)</u></b>			
2	On floors	m2	48	
	<b><u>POLISH, SEALERS, ETC</u></b>			
	<b><u>Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish complying with SABS 1042, including buffing after application of each coat of polish</u></b>			
3	On vinyl flooring	m2	287	
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	Floor Coverings, Wall linings, etc			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No	<b><u>SECTION NO. 5</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 9</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>CATCHES,CABIN HOOKS, ETC</u></b>			
	<b><u>"Solid"or equal approved</u></b>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	16	
	<b><u>LOCKS</u></b>			
	<b><u>"Solid"or equal approved</u></b>			
2	Code 2252-75 two lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	15	
	<b><u>"Cisa"or equal approved</u></b>			
3	CISA solid hardened steel padlock (Code: 28056-55-KD) with a C2000 5 pin keying system with a 55mm body size and supplied keyed different.	No	2	
	<b><u>SUNDRIES</u></b>			
	<b><u>"Solid"or equal approved</u></b>			
4	19mm Diameter chromium plated towel rail 600mm long incl. end brackets	No	3	
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	Section No. 5 Section 5: Administration Block Bill No. 9 Ironmongery <b>REPAIRS &amp; RENOVATIONS</b>			

**DOOR CLOSERS AND FLOOR SPRINGS**

**Yale or equal approved**

5	Y202RC or equal approved heavy duty door closer with cover fixed to metal	No	3
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**PUSH PLATES AND KICK PLATES**

**Stainless steel or equal approved**

6	Stainless steel kick plates 300 x 813 plate	No	6
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**SUNDRIES**

**Dorma or equal approved**

7	Stainless steel door stop type DDSS-SS-017 plugged	No	20
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**NUMERAL AND NAME PLATES**

**Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tap screwed to steel door frame with chromium plated dome-headed selftapping screws**

8	3mm Thick x 32mm wide plate with letters "STAFF ROOM"	No	1
9	3mm Thick x 32mm wide plate with letters "KITCHEN"	No	1
10	3mm Thick x 32mm wide plate with letters "PASTORAL CARE ROOM"	No	1
11	3mm Thick x 32mm wide plate with letters "STOCK/STORE ROOM"	No	1
12	3mm Thick x 32mm wide plate with letters "PRINT ROOM"	No	1
13	3mm Thick x 32mm wide plate with letters "KITCHEN"	No	1
14	3mm Thick x 32mm wide plate with letters "RECEPTION GENERAL OFFICE"	No	1

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15	3mm Thick x 32mm wide plate with letters "STRONG ROOM"	No	1
16	3mm Thick x 32mm wide plate with letters "PRINCIPAL"	No	1
17	3mm Thick x 32mm wide plate with letters "DEPUTY PRINCIPAL 1"	No	1
18	3mm Thick x 32mm wide plate with letters "DEPUTY PRINCIPAL 2"	No	1
19	3mm Thick x 32mm wide plate with letters "SICK ROOM 1"	No	1
20	3mm Thick x 32mm wide plate with letters "SICK ROOM 2"	No	1
<b><u>LETTERS, NAMEPLATES, ETC</u></b>			
<b><u>"Union" or equal approved</u></b>			
21	"Code AL5022-E10" Natural anodised aluminium plate with male symbol	No	1
22	"Code AL5022-E11" Natural anodised aluminium plate with female symbol	No	1
23	"Code AL5066-E14" Natural anodised aluminium plate with paraplegic pictogram	No	1
24	150 x 150mm Stainless steel plate engraved with "Tea" sign (St/Steel)	No	1

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**PELMETS AND CURTAIN TRACKS**

**Blinds, with 25 x 0.21mm thick slats including 25 x 25mm high aluminium powder coated top and bottom tracks with stainless steel seperator pins, cordlock and roller pins, blinds to be fitted inside reveal to lintel**

25	Blinds for window size 1 000 x 900mm high	No	9
26	Blinds for window size 1 000 x 1 200mm high	No	16

**BATHROOM FITTINGS**

**Frank or equal approved**

27	303 x 156 x141mm high Surface mounted stainless steel vandal and theft free toilet roll holder	No	5
28	300 x 270 x 520mm high, 34litre surface mounted stainless steel vandal and theft free waste disposal bin plugged.	No	3
29	304 x 100 x 134mm high Manually operated surface mounted stainless steel vandal and theft free soap dispenser with spindle system	No	3
30	300 x 305 x 134mm high Manually operated surface mounted stainless steel vandal and theft free paper towel dispenser	No	3
31	203mm Diameter polished stainless steel towel ring fitted as per manufacturer's instructions	No	3

**"Vaal Paragon" or equal approved**

32	300 x 300 x 300 x 32mm Stainless steel dog leg side grab rail fixed in position	No	1
33	750 long x 80mm Projecting stainless steel straight grab rail fixed in position	No	1
34	750 long x 200mm Projecting stainless steel straight grab rail fixed in position	No	1

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<b><u>SUNDRIES</u></b>					
35	Stainless steel hat and coat hook with rubber buffer	No	2		
<b><u>MATS</u></b>					
<b><u>Squeegee or equal approved</u></b>					
36	1 300 x 2 150 x 17mm thick floor dust trap mat glued onto screed in and including mat surround fixed with 25 x 25mm aluminium angle plugged to concrete.	No	1		
37	1 283 x 3 400 x 17mm thick floor dust trap mat glued onto screed in and including mat surround fixed with 25 x 25mm aluminium angle plugged to concrete.	No	1		
<b><u>STEEL CUPBOARDS</u></b>					
<b><u>Approved steel lockers with standard baked enamel finish</u></b>					
38	Industrial double door steel cupboard 910 x 610 x 2134mm high with five shelves	No	4		
<b><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u></b>					
<b><u>Carpet pinning boards comprising aluminium frame, pen tray and fixing components included with round plastic corners installed according to manufacturer's details.</u></b>					
<b><u>"Vitrex" or equal approved</u></b>					
39	Parrot Bulletin board aluminium frame or similar approved 2400x1200mm fixed to brickwall. Anodized Aluminium frame pinnable felt notice board with landscape orientation and concealed wall fixing kit included, colour: Laurel Grey, fabric type: Wool Felt with SABS Class 3 fire rating mounted at 1200mm height from FFL. Manufactured in accordance with SANS 1415:2005 all installed by approved installer in accordance with SANS 10186:2000.	No	5		
40	Parrot Bulletin board aluminium frame or similar approved 1500 x1200mm fixed to brickwalls. Anodized Aluminium frame pinnable felt notice board with landscape orientation and concealed wall fixing kit included, colour: Laurel Grey, fabric type: Wool Felt with SABS Class 3 fire rating mounted at 1200mm height from FFL. Manufactured in accordance with SANS 1415:2005 all installed by approved installer in accordance with SANS 10186:2000.	No	3		
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<p><b><u>BILL NO. 10</u></b></p>			
<p><b><u>METALWORK</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Descriptions of bolts shall be deemed to include nuts and washers.</p>			
<p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 5 Section 5: Administration Block Bill No. 10 Metalwork <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**STEEL GATES, SCREENS, ETC**

**The following in framed and welded mild steel security grille gates including fixing in position complete**

1	Gate frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc.; size 1626 x 2066mm high overall	No	2
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**SUNDRY STEELWORK**

**Welded steel columns, etc.**

2	101.6 x 4.5mm CHS column size approximately 4000mm high with 200 x 200 x 10mm thick base plate with four holes drilled and U shaped holding bracket size 100 x 60 x 4,5mm thick formed of rectangular hollow section 200mm long twice drilled	No	9
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3	100mm Long x 10mm diameter bolt and nut with two (2) washers	No	18
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4	80mm Long x 10mm wide rawl bolt fixed	No	36
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**Welded steel beam, etc**

5	152 x 152 x 4.5 SHS beam welded to column	m	35
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6	75 x 50 x 6mm mild steel lipped channel welded to beam	m	35
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7	10 mm Diameter x 85 mm long expansion bolt	No	18
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 Metalwork  
**REPAIRS & RENOVATIONS**

**STEEL HANDRAILS, BALUSTRADES, ETC**

**Welded balustrading**

8	Horizontal balustrades 900mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete (bolts elsewhere), 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	20
9	Extra over for L-intersection of horizontal balustrades	No	4
10	Extra over for flat closed end	No	4
11	80mm Expansion bolt	No	16

**PRESSED STEEL DOOR FRAMES**

**Double rebated pressed frames suitable for half brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf**

12	Frame for door size, 813 x 2032mm high	No	10
13	Frame for door size, 900 x 2032mm high	No	1

**MILD STEEL BURGLAR BARS**

**50 x 8mm steel flat bars fixed to brick walls detail as per Architectural drawings attached to these bills of quantities**

14	Window size, 500 x 600mm high	No	3
15	Window size, 1000 x 900mm high	No	9
16	Window size, 1000 x 1200mm high	No	16

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**STEEL STRONGROOM DOORS, VENTILATORS, ETC**

**Strongroom doors etc. suitable for 230mm walls fixed to brickwork or concrete**

17	Mutual Austen Safes DS50/2/HD SABS Category 2 or equal approved (Heavy Duty) right hand strongroom door with 2 x 7-lever security keylock, overall size 850 x 1860mm high with and including powder coated finish	No	1
18	Strongroom door stop plugged	No	1
19	Double ended ventilator	No	2

**ALUMINIUM WINDOWS**

**Standard natural anodised window frame, complete with and including ironmongery and 5mm clear safety glazing as per the specifications and window schedules at the back of the bills of quantities**

20	Window size, 500 x 600mm high	No	3
21	Window size, 1000 x 900mm high	No	9
22	Window size, 1000 x 1200mm high	No	16

**ALUMINIUM VIEW PANEL WINDOWS**

**Standard natural anodised window frame, complete with and including ironmongery and 5mm clear safety glazing as per the specifications and window schedules at the back of the bills of quantities**

23	View panel size 1000 x 990mm high	No	1
24	Purpose made window, size 1250 x 990mm high overall (Sliding window )	No	2

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**ALUMINIUM WINDOWS, DOORS, ETC.**

**Standard natural aluminium doors complete with subframes, ironmongery and floor springs, 6mm laminated safety glass, etc. sealing all round with silicone and fixing to brickwork or concrete**

25	Double door size 1 600 x 2 100mm high (D02)	No	2	
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**ALUMINIUM DOOR LOUVRE**

**Approved fixed louvre door units screwed into timber frames**

26	Purpose made louvre unit for 300 x 300mm high opening	No	2	
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	<b><u>BILL NO. 11</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Plaster on concrete</u></b>			
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work			
	<b><u>SCREEDS</u></b>			
	<b><u>1:3 screeds on concrete with trowel float finish</u></b>			
1	30mm Thick on floors and landings	m2	287	
	<b><u>1:3 Screeds on concrete with wooden float finish</u></b>			
2	30mm Thick on floors and landings to receive ceramic tiles	m2	59	
	<b><u>GRANOLITHIC</u></b>			
	<b><u>Untinted granolithic on concrete</u></b>			
3	40mm Thick on floors	m2	10	
4	75mm High coved grano skirting	m	16	
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**SELF LEVELLING FLOOR COMPOUND**

**5mm thick commercial grade self-levelling screed (over 25MPA) and moisture barrier laid in accordance with the manufacturer's instructions**

5	On floors	m2	287
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**INTERNAL PLASTER**

**Cement plaster on brickwork**

6	On walls	m2	795
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7	On narrow widths	m2	3
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**Cement plaster on concrete**

**CORNER PROTECTORS, DIVIDING STRIPS, ETC.**

8	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	32
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Plastering

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 5</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>TILING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>WALL TILING</u></b>			
	<b><u>200 x 200 x 10mm glazed wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
1	On walls	m2	45	
2	On splashbacks, etc	m2	3	
3	On narrow widths	m2	2	
	<b><u>FLOOR TILING</u></b>			
	<b><u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
4	On floors and landings	m2	59	
5	Skirting 120mm high	m	30	
	<b><u>EDGE TRIMS, ETC</u></b>			
6	Aluminium square edge trim	m	35	
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	Tiling			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No	Quantity	Rate	Amount
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<p><b><u>BILL NO. 13</u></b></p>			
<p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>uPVC pipes and fittings:</u></b></p>			
<p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p>			
<p><b><u>Copper pipes:</u></b></p>			
<p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be approved by the Architect. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p>			
<p><b><u>Fixing of pipes</u></b></p>			
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p>			
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**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

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**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**User note:**

Please note the rate for butt welding is deemed to be included in all fittings

**RAINWATER DISPOSAL**

**GUTTERS, DOWNPIPES, ETC.**

**Commercial and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc**

1	100 x 100mm galvanised section eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	102
2	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	16
3	Extra over 100 x 100 x 0.6mm thick eaves gutter for stopped end	No	8

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4	100mm Diameter rainwater downpipe with brackets fixed to brick wall or concrete	m	72	
5	Extra over 100 x 0.6mm rainwater pipe for bend	No	16	
6	Extra over 100 x 0.6mm rainwater pipe for shoe	No	16	
<b><u>SOIL DRAINAGE</u></b>				
7	Excavation not exceeding 1m deep for drain trenches	m3	45	
8	Excavation exceeding 1m and not exceeding 2m deep for drain trenches	m3	35	
9	Backfilling to drain trenches compacted to 93% Mod AASHTO density	m3	45	
10	Selected sand filling from the excavations in bedding under and filling around pipes	m3	45	
<b><u>Extra over bulk excavation in earth for excavation in</u></b>				
11	Soft rock	m3	8	
12	Hard rock	m3	4	
<b><u>HDPE pipe</u></b>				
<b><u>Supply mains pipe, bed, lay joint, bed and test sewer pipes with thermal welded joints:</u></b>				
13	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	45	
14	110mm Pipes laid in trenches (trenches elsewhere)	m	50	
<b><u>Extra over HDPE pipes for fittings</u></b>				
15	110mm Bend	No	5	
16	110mm Junction	No	5	
17	110mm Access bend	No	5	
18	110mm Access junction	No	5	
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<b><u>HDPE gulleys</u></b>					
19	110mm Gulley not exceeding 750mm deep	No	4		
<b><u>Sundries</u></b>					
20	Testing soil drainage system		Item		
<b><u>SANITARY FITTINGS</u></b>					
<b><u>"Franke" stainless steel</u></b>					
21	Franke Trendline Model or equal approved 1200 x5 35 DEB Grade 304 18/10 polished stainless steel double end bowl drop on sink (Code: 312081), overall size 1200 x 535mm with two 343 x 410 x 140mm deep bowls, fitted onto cupboard (elsewhere specified) including PVC traps (traps elsewhere specified)	No	1		
<b><u>"Vaal" or equal approved</u></b>					
22	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	6		
23	610 x 460mm Wall mounted paraplegic WHB with single or double holes. All items to be fully fitted with all necessary plumbing accessories	No	1		
24	White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	4		
25	Paraplegic WC pan with double flap heavy duty plastic seat (flush valve and flush pipe elsewhere)	No	1		
26	Vaal Sanitaryware 600 x 385 x 380mm Lavatera white vitreous china wall mounted top inlet urinal (code: 705426) including 38mm chromium plated domical grating (code: 8787Z0) and chromium plated top inlet spreader spreader (code: 7054Z1), flush valve (by others - Recommended: Cobra FJ6000), fixed on and including two hanger brackets (code: 8127Z0)	No	2		
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<b><u>WASTE UNIONS, ETC</u></b>			
27	32mm Basin waste union	No	7
28	38mm Bath or sink waste union	No	1
<b><u>TRAPS ETC</u></b>			
29	40mm Flexi butyl rubber trap with reseal "P" trap	No	8
<b><u>TAPS, VALVES, ETC</u></b>			
<b><u>Cobra Watertech of equal approved</u></b>			
30	Chrome plated sink mixer with aerated swivel outlet mounted on the sink. All items to be fully fitted with all necessary plumbing accessories.	No	1
31	Chrome plated basin mixer with aerated swivel outlet mounted on the basin. All items to be fully fitted with all necessary plumbing accessories.	No	7
32	15 x 350mm CP flexible connector	No	5
33	Cobra Watertech exposed urinal chrome plated Junior Flushmaster flushvalve (code: FJ6.000) with non-hold open feature, wall flange and 20mm "Ball-o-Stop" control inlet.	No	2
34	20mm Full way stop cock	No	13
<b><u>SANITARY PLUMBING</u></b>			
<b><u>HDPE pipes</u></b>			
35	50mm Pipes	m	60
36	50mm Pipes chased into brick walls	m	35
37	110mm Pipes	m	50
<b><u>Extra over HDPE pipes for fittings</u></b>			
38	50mm Bend	No	14
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<b>REPAIRS &amp; RENOVATIONS</b>			

39	50mm Access bend	No	14		
40	50mm Junction	No	14		
41	50mm Access junction	No	14		
42	110mm Bend	No	10		
43	110mm Access bend	No	10		
44	110mm Socket	No	10		
45	110mm Junction	No	10		
46	110mm Reducing junction	No	10		
47	110mm Access junction	No	10		
48	110mm Two-way vent valve	No	5		
49	110mm Pan connector	No	5		
	<b><u>Sundries</u></b>				
50	Testing water pipe system		Item		
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class "O" copper pipes:</u></b>				
51	15mm Pipes chased in brickwork	m	60		
52	22mm Pipes chased in brickwork	m	40		
53	28mm Pipes	m	30		
	<b><u>Extra over class "O" copper pipes for capillary fittings</u></b>				
54	15mm Fittings	No	20		
55	22mm Fittings	No	15		
56	28mm Fittings	No	15		
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	<b>REPAIRS &amp; RENOVATIONS</b>				

<b><u>Copper flexible service pipes</u></b>				
57	15mm Service pipe 340mm girth	No	2	
<b><u>Sundries</u></b>				
58	80mm Meter and valve box including brick chamber below not exceeding 1mm deep internally	No	1	
<b><u>Sundries</u></b>				
59	Testing water pipe system		Item	
<b><u>ELECTRIC WATER HEATERS</u></b>				
<b><u>"Kwikot" or equal approved</u></b>				
60	Kwikot 250 Litre Standard 600 Dual electric water heater (Code : EF-250-2D) complying with SABS 151-2002, overall size 1650 x 535mm high, operating at 400kPa with temperature and pressure safety relief valve including 20mm female draincock with inlet compression. Geyser to be installed horizontally in roof space with 1820 x 560mm wide polyethylene drip tray with union and back nut connected to 20mm PVC overflow pipe taken out at eaves (Code : GSTP-1940) and 22mm pipe work including two 22mm vacuum breakers (Code : KHN4.200CX) installed on hot and cold water supply. Installation to include a 22mm 400kPa Kwikot Mono control and expansion relief valve (Code : KHN3.114), all in accordance with SANS 10254, connected to single phase electrical power supply with isolator 1m away from connection on geyser.	No	1	
<b><u>SLEEVES</u></b>				
<b><u>HDPE sleeves for pipes not exceeding 100mm diameter</u></b>				
61	Sleeve not exceeding 250mm long	No	1	
<b><u>HDPE sleeves for pipes exceeding 100mm and not exceeding 200mm diameter</u></b>				
62	Sleeve not exceeding 250mm long	No	1	
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**HOLES ETC**

**Core drilling of hole for pipe not exceeding 100mm and not exceeding 150mm diameter**

63	200mm Reinforced concrete slab, beam, wall, etc	No	1
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 Plumbing and Drainage (Provisional)  
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Section No. 5

Section 5: Administration Block

Bill No. 13

Plumbing and Drainage (Provisional)

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Section 5: Administration Block

Bill No. 13

Plumbing and Drainage (Provisional)

**REPAIRS & RENOVATIONS**





<b><u>ON FIBRE-CEMENT</u></b>		
<b><u>Prepare, stop and apply two full coats semi-gloss PVA co-polymer paint to comply with SABS Specification No. 643</u></b>		
4	On ceilings and cornices	m2 59
<b><u>Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use</u></b>		
5	On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2 46
<b><u>ON METAL</u></b>		
<b><u>Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint</u></b>		
6	On pressed steel door frames	m2 22
7	On steel members	m2 31
8	On steel columns	m 27
<b><u>Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint</u></b>		
9	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2 71
<b><u>Prepare and apply two coats bitumen paint</u></b>		
10	On inside of 100 x 100mm galvanised sheet iron eaves gutter before fixing	m2 35
<b><u>ON WOOD</u></b>		
<b><u>One coat pink wood primer and two coats clear polyurethane varnish</u></b>		
11	On skirtins, rails, etc. not exceeding 300mm girth	m 30
<b>Carried to Collection</b>		
Section No. 5 Section 5: Administration Block Bill No. 15 Paintwork <b>REPAIRS &amp; RENOVATIONS</b>		R

12	<u>Prepare, stop and apply one coat wood primer and two coats PVA paint</u> On doors	m2	40		
<b>Carried to Collection</b>					R

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Paintwork  
**REPAIRS & RENOVATIONS**

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Bill No. 15

Paintwork

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Paintwork

**REPAIRS & RENOVATIONS**

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Section 5: Administration Block

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8	Floor Coverings, Wall linings, etc	191	
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<p><b><u>SECTION NO. 6</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 6 Section 6: Nutrition Centre Bill No. 1 Earthworks <b>REPAIRS &amp; RENOVATIONS</b></p>			
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**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	181
2	Holes	m3	9

**Extra over excavations in earth for excavation in:**

3	Soft rock	m3	18
4	Hard rock	m3	9

**Extra over all excavations for carting away**

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	88
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**Risk of collapse of excavations**

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	615
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**Keeping excavations free of water**

7	Keeping excavations free of water		Item
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**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>				
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>				
8	Backfilling to trenches, holes, etc	m3	99	
<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 97% Mod AASHTO to density</u></b>				
9	Under floors, steps, pavings, etc	m3	115	
<b><u>Earth filling of G6 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>				
10	Under floors, steps, pavings, etc	m3	110	
<b><u>Coarse river sand filling supplied by the contractor</u></b>				
11	Under floors etc	m3	18	
<b><u>Compaction of surfaces</u></b>				
12	Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	368	
<b><u>Prescribed density tests on filling</u></b>				
13	"Modified AASHTO Density" test	No	15	
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>				
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>				
14	Under floors, etc including forming and poisoning shallow furrows etc and filling in furrows and ramming	m2	368	
15	To bottoms and sides of trenches, etc	m2	145	
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Earthworks

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Earthworks

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 6</u></b></p>			
<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 6 Section 6: Nutrition Centre Bill No. 2 Concrete, Formwork and Reinforcement <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	2
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**25 MPa Concrete in:**

2	Plinths, etc	m3	2
3	Aprons	m3	8
4	Thickening down the edge of apron 150mm deep ,200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	84

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

5	Ramps	m3	4
6	Footings	m3	30
7	Holes	m3	2
8	Stub columns	m3	1
9	Surface beds	m3	48

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**REPAIRS & RENOVATIONS**

10	Steps, urinal steps, cupboard platforms, etc	m3	1
<b><u>TEST BLOCKS</u></b>			
11	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	15
<b><u>MOVEMENT JOINTS, ETC</u></b>			
<b><u>Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces</u></b>			
12	10mm Joints exceeding 300mm high	m	230
<b><u>Saw cut joints</u></b>			
13	4 x 30mm Saw cuts in top of concrete	m	160
<b><u>CONCRETE SUNDRIES</u></b>			
<b><u>Finishing top surfaces of concrete with wooden float finish</u></b>			
14	Ramps, etc	m2	12
15	Aprons, etc	m2	84
16	Slabs, etc	m2	9
<b><u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u></b>			
<b><u>Rough formwork to sides</u></b>			
17	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	24
18	Sides of stub columns	m2	12

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**REPAIRS & RENOVATIONS**

**REINFORCEMENT**

**Reinforcement**

**Mild tensile steel reinforcement to structural concrete work**

19	10mm Diameter bars	t	1.00
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**High tensile steel reinforcement to structural concrete work**

20	12mm Diameter bars	t	1.00
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21	16mm Diameter bars	t	1.00
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**Fabric reinforcement**

22	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	368
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23	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	145
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Section 6: Nutrition Centre

Bill No. 2

Concrete, Formwork and Reinforcement

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Section 6: Nutrition Centre

Bill No. 2

Concrete, Formwork and Reinforcement

**REPAIRS & RENOVATIONS**

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<p><b><u>BILL NO. 3</u></b></p>			
<p><b><u>MASONRY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>BRICKWORK</u></b></p>			
<p><b><u>Sizes in descriptions</u></b></p>			
<p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p>			
<p><b><u>Hollow walls etc</u></b></p>			
<p>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.</p>			
<p><b><u>Face bricks</u></b></p>			
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
<p><b><u>Pointing</u></b></p>			
<p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 6 Section 6: Nutrition Centre Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b></p>			
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<b><u>Samples</u></b>					
Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site					
<b><u>FOUNDATIONS (PROVISIONAL)</u></b>					
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>					
1	Half brick walls	m2	40		
2	One brick walls	m2	154		
<b><u>SUPERSTRUCTURE</u></b>					
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>					
3	Half brick walls	m2	96		
4	One brick walls	m2	429		
<b><u>BRICKWORK SUNDRIES</u></b>					
<b><u>Brickwork reinforcement</u></b>					
5	75mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	423		
6	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	2,077		
<b><u>Concrete prestressed fabricated lintels</u></b>					
7	115 x 75mm Lintels in lengths not exceeding 3m	m	22		
<b><u>Turning pieces</u></b>					
8	165mm Wide turning piece to lintels etc	m	18		
<b>Carried to Collection</b>					
Section No. 6 Section 6: Nutrition Centre Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b>					R

<b><u>Joint forming material in movement joints</u></b>					
9	Movement joint formed of 20mm soft board built in vertically between brickwork (Provisional)	m	30		
<b><u>Galvanised hoop iron cramps, ties, etc</u></b>					
10	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No	80		
<b><u>FACE BRICKWORK</u></b>					
<b><u>Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.</u></b>					
11	Extra over brickwork for face brickwork	m2	2,427		
12	Extra over brickwork for face brickwork in foundation	m2	50		
13	Half brick wall in face brickwork in beamfilling pointed one side	m2	24		
<b><u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u></b>					
14	Brick-on-edge header course lintel pointed on both faces and 230mm wide soffit	m	24		
15	Cut face brick-on-edge external window cill, 180mm wide, set sloping and slightly projecting in cement mortar and pointed on top, front edge and projecting soffit including all necessary fair raking cutting to facings under and fair and fitted ends	m	18		
16	Coping on top of one brick wall	m	35		
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Section 6: Nutrition Centre

Bill No. 3

Masonry

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Bill No. 3

Masonry

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	36	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	368	
	<b>Carried to Collection</b>			
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**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	160
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	230

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Bill No. 4

Waterproofing

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Section 6: Nutrition Centre

Bill No. 4

Waterproofing

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 6</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b>Note:</b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber/steel purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	442	
	<b>Carried to Collection</b>			
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**PROFILED METAL SHEETING AND ACCESSORIES**

**0,6mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

2	Roof covering with pitch not exceeding 25 degrees	m2	442
3	Ridge capping 562mm girth 3 times bent and notched to suit roof profile	m	26
4	Hip capping 562mm girth 3 times bent and notched to suit roof profile	m	20

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Roof Coverings, etc

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Roof Coverings, etc

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 6</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
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<p>Section No. 6 Section 6: Nutrition Centre Bill No. 6 Carpentry and Joinery <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

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**REPAIRS & RENOVATIONS**

Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum plasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc.

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e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1 Nutrition Centre approximately 368m<sup>2</sup> measured flat

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**REPAIRS & RENOVATIONS**

	<b><u>Sawn softwood</u></b>				
2	50 x 228mm laminated beam bolted to steel columns	m	35		
	<b><u>FASCIAS AND BARGE BOARDS</u></b>				
	<b><u>Nutec board or equal approved</u></b>				
3	9 x 225mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends	m	100		
	<b><u>Wrought Close-Grained hardwood</u></b>				
	<b><u>SKIRTINGS</u></b>				
	<b><u>Wrought meranti</u></b>				
4	19 x 76mm skirtings with 19mm quarter round nailed to walls	m	44		
	<b><u>DOORS</u></b>				
	<b><u>NOTE:</u></b>				
	All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dove tailed shape.				
	<b><u>Wrought hardwood framed and batten doors hung to timber frames (elsewhere measured) of 108 x 40mm top rail and stiles, 144x 22mm middle ledge, 220 x 22mm bottom rail, filled with 76 x 22mm tongued and grooved V-jointed battens, with 50 x 50mm hardwood weather bar routed into bottom panel of door</u></b>				
5	40mm Single door, size 813 x 2032mm high	No	1		
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**Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames**

6	40mm Door 813 x 2032mm high	No	11
7	40mm Door 900 x 2032mm high	No	1

**Door grills, etc**

**Extra over for 300 x 300mm framed opening for aluminium unit (louvre unit elsewhere)**

8	300 x 300mm aluminium louvre	m	1
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<p><b><u>BILL NO. 7</u></b></p>			
<p><b><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p>			
<p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere</p>			
<p><b><u>Proprietary suspended ceilings</u></b></p>			
<p>Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)</p>			
<p><b><u>INSULATION, ETC</u></b></p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 6 Section 6: Nutrition Centre Bill No. 7 Ceilings, Partitioning and Access Flooring <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

**Fibreglass insulation**

1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions	m2	368
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 Ceilings, Partitioning and Access Flooring  
**REPAIRS & RENOVATIONS**

**NAILED UP CEILINGS**

**6.4mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster**

2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood bandering at 400mm centres in one direction and around edges where required for fixing cornices, bandering spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	368
3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	2

**Cornices**

4	76mm Gypsum coved trim cornice	m	295
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Ceilings, Partitioning and Access Flooring

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Ceilings, Partitioning and Access Flooring

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 8</u></b>			
	<b><u>FLOOR COVERINGS, WALL LININGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	NOTE : All materials shall be in colours to be selected by the Representative/Agent and, where applicable, laid to approved patterns			
	<b><u>FLOOR COVERINGS</u></b>			
	<b><u>2,5mm Semi-flexible vinyl floor tiles laid in two colour pattern on cement screed (elsewhere)</u></b>			
1	On floors	m2	18	
	<b><u>2,5mm non-slip vinyl floor sheeting laid in two colour pattern on cement screed (elsewhere)</u></b>			
2	On floors	m2	120	
	<b><u>POLISH, SEALERS, ETC</u></b>			
	<b><u>Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish complying with SABS 1042, including buffing after application of each coat of polish</u></b>			
3	On vinyl flooring	m2	138	
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	Floor Coverings and Access Flooring			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No	<b><u>SECTION NO. 6</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 9</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>CATCHES,CABIN HOOKS, ETC</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	8	
2	150mm 8052-150 Brass flush bolt with keep fixed to metal.	No	4	
3	150mm 8052-150 Brass flush bolt with keep let into concrete.	No	4	
	<b><u>LOCKS</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
4	Code 2252-75 two lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	9	
	<b><u>"Cisa" or equal approved</u></b>			
5	CISA solid hardened steel padlock (Code: 28056-55-KD) with a C2000 5 pin keying system with a 55mm body size and supplied keyed different.	No	5	
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<b><u>SUNDRIES</u></b>					
<b><u>Dorma or equal approved</u></b>					
6	Stainless steel door stop type DDSS-SS-017 plugged "	No	18		
<b><u>NUMERAL AND NAME PLATES</u></b>					
<b><u>Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tap screwed to steel door frame with chromium plated dome-headed selftapping screws</u></b>					
7	3mm Thick x 32mm wide plate with letters "DINNING ROOM"	No	1		
8	3mm Thick x 32mm wide plate with letters "NUTRITIONAL CENTRE"	No	1		
9	3mm Thick x 32mm wide plate with letters "KITCHEN"	No	1		
<b><u>"Union" or equal approved</u></b>					
10	"Code AL5022-E10" Natural anodised aluminium plate with male symbol	No	1		
11	"Code AL5022-E11" Natural anodised aluminium plate with female symbol	No	1		
12	150 x 150mm Stainless steel plate engraved with "Tea" sign (St/Steel)	No	1		
13	"Code AL5022-E10" Natural anodised aluminium plate with fire extinguisher symbol	No	2		
14	"Code AL5022-E10" Natural anodised aluminium plate with fire hose reel symbol	No	1		
<b><u>STEEL LOCKERS</u></b>					
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Ironmongery

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Ironmongery

**REPAIRS & RENOVATIONS**

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<p><b><u>BILL NO. 10</u></b></p>			
<p><b><u>METALWORK</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Descriptions of bolts shall be deemed to include nuts and washers.</p>			
<p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.</p>			
<p>Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.</p>			
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**STEEL GATES, SCREENS, ETC**

**The following in framed and welded mild steel security grille gates including fixing in position complete**

1	Gate frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc. size 813 x 2066mm high overall	No	1
2	Gate frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc.; size 1626 x 2066mm high overall	No	4

**SUNDRY STEELWORK**

**Welded steel columns, etc.**

3	101.6 x 4.5mm CHS column size approximately 4000mm high with 200 x 200 x 10mm thick base plate with four holes drilled and U shaped holding bracket size 100 x 60 x 4,5mm thick formed of rectangular hollow section 200mm long twice drilled	No	9
4	100mm Long x 10mm diameter bolt and nut with two (2) washers	No	18

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**REPAIRS & RENOVATIONS**

5	8mm Long x 10mm wide rawl bolt fixed	No	36
<b><u>Welded steel beam, etc</u></b>			
6	152 x 152 x 4.5 SHS beam welded to column	m	33
7	75 x 50 x 6mm mild steel lipped channel welded to beam	m	33
8	10 mm Diameter x 75 mm long expansion bolt	No	40
<b><u>STEEL HANDRAILS, BALUSTRADES, ETC</u></b>			
<b><u>Welded balustrading</u></b>			
9	Horizontal balustrades 900mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete (bolts elsewhere), 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	40
10	Extra over for L-intersection of horizontal balustrades	No	10
11	Extra over for flat closed end	No	10
12	8mm Expansion bolt	No	40
<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
<b><u>Double rebated pressed frames suitable for half brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf</u></b>			
13	Frame for door size, 813 x 2032mm high	No	6
14	Frame for door size, 900 x 2032mm high	No	1

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**REPAIRS & RENOVATIONS**

**MILD STEEL BURGLAR BARS**

**50 x 8mm steel flat bars fixed to brick walls detail as per Architectural drawings attached to these bills of quantities**

15	Window size, 500 x 600mm high	No	7
16	Window size, 600 x 900mm high	No	13
17	Window size, 1500 x 600mm high	No	4
18	Window size, 1500 x 1000mm high	No	3

**STEEL ROLLER SHUTTERS, ETC**

**Galvanised steel roller shutters with 76mm slats, fixed to brickwork or concrete**

19	Manual push-up slatted roller shutter for 1 500 x 1 000mm high opening	No	1
20	Manual push-up slatted roller shutter for 2 185 x 2 400mm high opening	No	1

**ALUMINIUM WINDOWS**

**Standard natural anodised window frame, complete with and including ironmongery and 5mm clear safety glazing as per the specifications and window schedules at the back of the bills of quantities**

21	Window size, 500 x 600mm high	No	7
22	Window size, 600 x 900mm high	No	13
23	Window size, 1500 x 600mm high	No	4
24	Window size, 1500 x 1000mm high	No	3

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**ALUMINIUM WINDOWS, DOORS, ETC.**

**Standard natural aluminium doors complete with subframes, ironmongery and floor springs, 6mm laminated safety glass, etc. sealing all round with silicone and fixing to brickwork or concrete**

25	Double door size 1 600 x 2 100mm high (D02)	No	4	
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**ALUMINIUM DOOR LOUVRE**

**Approved fixed louvre door units screwed into timber frames**

26	Purpose made louvre unit for 300 x 300mm high opening	No	1	
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Metalwork

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Metalwork

**REPAIRS & RENOVATIONS**



**SPECIALIST FLOOR COATINGS TO  
STRUCTURAL SCREEDS AND CONCRETE  
SURFACES**

**SUPPLEMENTARY PREAMBLES**

**Descriptions**

All sub-strata preparation and product installation to be carried out by a specialist applicator approved by the manufacturer and in strict accordance with the manufacturer's specification and instructions. Reference areas to be approved by Principal Agent prior to commencement of work

The successful epoxy applicator should maintain close liaison with the manufacturer and ensure the manufacturer's technical department is present during the installation

References to product or product codes referred to Pro-Struct or equal or other approved

**Special floor coatings**

**Non-Metallic Floor Hardener (Product Codes 509 / 520)**

Strike off concrete surface and apply non-metallic floor hardener (product code 509) at a rate of 5kg/m<sup>2</sup> in two applications. On completion of the floating operation, cure concrete surface immediately with an application of a concrete curing compound (product code 520) at a rate of 5-7m<sup>2</sup>/litre

**Resin Floor Hardener (Product Code 541)**

All concrete surfaces to be thoroughly cleaned to remove all loose and friable material

Apply by roller 3 coats anti-dusting case hardening floor hardener (Product code 541), allowing 3 hours between coats and applied at film thickness of 60 microns per coat

**Flocote High Build Epoxy Coating (Product Code 639 / 723)**

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Plastering  
**REPAIRS & RENOVATIONS**

Scarify or vacublast concrete surface to remove all laitence and provide a key for the epoxy system

Apply by roller, a solvent based primer coat (product code 639), ensuring a coverage of 6m<sup>2</sup> per litre. Allow to cure

Trowel apply Self-Levelling Epoxy Screed (product code 723) to a nominal thickness of 1,0mm

**Self Levelling Floor Coating (Product Codes 639 / 615 / 722)**

Scarify or vacublast concrete surface to remove all laitence and provide a key for the epoxy system

Apply by roller a solvent based primer coat (product code 639), ensuring a coverage of 6m<sup>2</sup> per litre. Allow to cure

Trowel apply Self-Levelling Epoxy Screed (product code 615) to a nominal thickness of 2,0mm

Wet areas to receive 2 coats of Non Slip onto Self Levelling Screed (product code 722)

**Epoxy Mortar System (Product Codes 624R / 624M)**

Scarify or vacublast concrete surface to remove all laitence and provide a key for the epoxy system

Prime prepared areas with a two-pack solvent-free epoxy (product code 624R) applied at 3m<sup>2</sup> per litre. Into the wet epoxy, blind the surface with a medium-grit aggregate and allow to cure. Sweep off any excess aggregate prior to commencement of the flooring system

Trowel apply a 3-component epoxy mortar (product code 624R) onto the primed surfaces, maintaining a nominal thickness of 6mm. Allow epoxy screed to cure and overcoat with two coats of a pigmented epoxy resin (product code 624R) ensuring a coverage of 6m<sup>2</sup> per litre per coat

**Polyurethane Textured Mortar System (Product Code UT System)**

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**REPAIRS & RENOVATIONS**

Scarify or vacublast concrete surface to remove all laitence and provide a key for the polyurethane urea flooring system.

Apply by notched trowel a 6mm nominal thickness semi-levelling polyurethane urea floor screed (product code UT), finished with a non-slip sealed surface (under the cooking pots)

**Coved Skirtings (Product Codes 624R / 624M)**

Form coved skirting 75mm high at the junction of the wall and floor with a radius of 25mm using a 3-component epoxy mortar matrix (product code 624R). Overcoat the coved skirting with a solvent-free epoxy system (product code 624R) (colour to match the floors)

**Isolation and Construction Joints (Product Code 744)**

On completion of the various epoxy and polyurethane area flooring systems joints in the sub-base are to be carried through the epoxy and filled with a two-pack quick-seal polysulphide joint sealant (product code 744)

Prime with Pro-struct 639 penetrating primer at approximately 6m2/litre, allow to cure and apply two component Pro-struct 615 self levelling floor coating at a rate of 8m2/20litre kit (2mm thick) and finishing to a non-slip finish with Pro-struct 722 non-slip clear sealer at a rate of 8m2/litre, all in accordance with the manufacturer's instructions (Preparation of floors elsewhere measured)

2	On screeded floors and landings	m2	127
3	On 100mm high coved skirting	m	73

**SELF LEVELLING FLOOR COMPOUND**

5mm thick commercial grade self-levelling screed (over 25MPA) and moisture barrier laid in accordance with the manufacturer's instructions

4	On floors	m2	138
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 Plastering  
**REPAIRS & RENOVATIONS**

**INTERNAL PLASTER**

**Cement plaster on brickwork**

5	On walls	m2	690
6	On narrow widths	m2	3

**Cement plaster on concrete**

**CORNER PROTECTORS, DIVIDING STRIPS,  
ETC.**

7	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	12
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**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 6</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>TILING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>WALL TILING</u></b>			
	<b><u>200 x 200 x 10mm glazed wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
1	On walls	m2	85	
2	On splashbacks, etc	m2	2	
3	On narrow widths	m2	1	
	<b><u>FLOOR TILING</u></b>			
	<b><u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
4	On floors and landings	m2	65	
5	Skirting 120mm high	m	30	
	<b><u>EDGE TRIMS, ETC</u></b>			
6	Aluminium square edge trim	m	35	
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	Tiling			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 6</u></b></p>			
<p><b><u>BILL NO. 13</u></b></p>			
<p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>uPVC pipes and fittings:</u></b></p>			
<p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p>			
<p><b><u>Copper pipes:</u></b></p>			
<p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be approved by the Architect. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p>			
<p><b><u>Fixing of pipes</u></b></p>			
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 6 Section 6: Nutrition Centre Bill No. 13 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>			R

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

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**REPAIRS & RENOVATIONS**

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**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**User note:**

Please note the rate for butt welding is deemed to be included in all fittings

**RAINWATER DISPOSAL**

**GUTTERS, DOWNPIPES, ETC.**

**Commercial and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc**

1	100 x 100mm galvanised section eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	100
2	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	12
3	Extra over 100 x 100 x 0.6mm thick eaves gutter for stopped end	No	4

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**REPAIRS & RENOVATIONS**

4	100mm Diameter rainwater downpipe with brackets fixed to brick wall or concrete	m	54
5	Extra over 100 x 0.6mm rainwater pipe for bend	No	12
6	Extra over 100 x 0.6mm rainwater pipe for shoe	No	12
<b><u>SOIL DRAINAGE</u></b>			
7	Excavation not exceeding 1m deep for drain trenches	m3	60
8	Excavation exceeding 1m and not exceeding 2m deep for drain trenches	m3	35
9	Backfilling to drain trenches compacted to 93% Mod AASHTO density	m3	40
10	Selected sand filling from the excavations in bedding under and filling around pipes	m3	50
<b><u>Extra over bulk excavation in earth for excavation in</u></b>			
11	Soft rock	m3	6
12	Hard rock	m3	3
<b><u>HDPE pipe</u></b>			
<b><u>Supply mains pipe, bed, lay joint, bed and test sewer pipes with thermal welded joints:</u></b>			
13	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	110
14	110mm Pipes laid in trenches (trenches elsewhere)	m	30
<b><u>Extra over HDPE pipes for fittings</u></b>			
15	110mm Bend	No	4
16	110mm Junction	No	4
17	110mm Access bend	No	4
18	110mm Access junction	No	4

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<b><u>HDPE gulleys</u></b>					
19	110mm Gulley not exceeding 750mm deep	No	4		
<b><u>Sundries</u></b>					
20	Testing soil drainage system		Item		
<b><u>SANITARY FITTINGS</u></b>					
<b><u>"Franke" stainless steel</u></b>					
21	Franke Trendline Model or equal approved 1200 x 535 DEB Grade 304 18/10 polished stainless steel double end bowl drop on sink (Code: 312081), overall size 1200 x 535mm with two 343 x 410 x 140mm deep bowls, fitted onto cupboard (elsewhere specified) including PVC traps (traps elsewhere specified)	No	3		
22	Franke Trendline Model or equal approved 1 030 x 440 x 385mm double compartment mounted wash trough on and including 25.4 x 25.4 square metal tube gallows brackets with front let into brickwork.	No	2		
<b><u>"Vaal" or equal approved</u></b>					
23	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	3		
24	610 x 460mm Wall mounted paraplegic WHB with single or double holes. All items to be fully fitted with all necessary plumbing accessories	No	1		
25	White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	2		
26	Paraplegic WC pan with double flap heavy duty plastic seat (flush valve and flush pipe elsewhere)	No	1		
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<b><u>WASTE UNIONS, ETC</u></b>			
27	32mm Basin waste union	No	4
28	38mm Bath or sink waste union	No	5
<b><u>TRAPS ETC</u></b>			
29	40mm Rubber deep seal combination "P" trap for double bowl sink.	No	5
<b><u>TAPS, VALVES, ETC</u></b>			
<b><u>Cobra Watertech of equal approved</u></b>			
30	Chrome plated sink mixer with aerated swivel outlet mounted on the sink. All items to be fully fitted with all necessary plumbing accessories.	No	5
31	Chrome plated basin mixer with aerated swivel outlet mounted on the basin. All items to be fully fitted with all necessary plumbing accessories.	No	4
32	15 x 350mm CP flexible connector	No	3
33	20mm Full way stop cock	No	12
<b><u>SANITARY PLUMBING</u></b>			
<b><u>HDPE pipes</u></b>			
34	50mm Pipes	m	45
35	50mm Pipes chased into brick walls	m	40
36	110mm Pipes	m	30
<b><u>Extra over HDPE pipes for fittings</u></b>			
37	50mm Bend	No	10
38	50mm Access bend	No	10
39	50mm Junction	No	10
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<b>REPAIRS &amp; RENOVATIONS</b>			

**REPAIRS & RENOVATIONS AT GOAKGANYA PRIMARY**

**EIMS NO: 600100443**

**RFP041/2022**

40	50mm Access junction	No	8		
41	110mm Bend	No	9		
42	110mm Access bend	No	3		
43	110mm Socket	No	3		
44	110mm Junction	No	3		
45	110mm Reducing junction	No	3		
46	110mm Access junction	No	3		
47	110mm Two-way vent valve	No	3		
48	110mm Pan connector	No	3		
	<b><u>Sundries</u></b>				
49	Testing water pipe system		Item		
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class "O" copper pipes:</u></b>				
50	15mm Pipes chased in brickwork	m	40		
51	22mm Pipes chased in brickwork	m	40		
52	28mm Pipes	m	30		
	<b><u>Extra over class "O" copper pipes for capillary fittings</u></b>				
53	15mm Fittings	No	15		
54	22mm Fittings	No	15		
55	28mm Fittings	No	10		
	<b><u>Copper flexible service pipes</u></b>				
56	15mm Service pipe 340mm girth	No	2		
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<b><u>Sundries</u></b>					
57	80mm Meter and valve box including brick chamber below not exceeding 1mm deep internally	No	1		
<b><u>Testing</u></b>					
58	Testing water pipe system		Item		
<b><u>FLOOR DRAIN</u></b>					
<b><u>Rofo Engineering or equal approved</u></b>					
59	Rofo Engineering R-125H NW50 or equal approved Square Flange Full Flow Floor Trap manufactured from stainless steel 304, complete. Installed as per manufacturer specifications	No	1		
<b><u>ELECTRIC WATER HEATERS</u></b>					
<b><u>"Kwikot" or equal approved</u></b>					
60	Kwikot 250 Litre Standard 600 Dual electric water heater (Code : EF-250-2D) complying with SABS 151-2002, overall size 1650 x 535mm high, operating at 400kPa with temperature and pressure safety relief valve including 20mm female draincock with inlet compression. Geyser to be installed horizontally in roof space with 1820 x 560mm wide polyethylene drip tray with union and back nut connected to 20mm PVC overflow pipe taken out at eaves (Code : GSTP-1940) and 22mm pipe work including two 22mm vacuum breakers (Code : KHN4.200CX) installed on hot and cold water supply. Installation to include a 22mm 400kPa Kwikot Mono control and expansion relief valve (Code : KHN3.114), all in accordance with SANS 10254, connected to single phase electrical power supply with isolator 1m away from connection on geyser.	No	1		
<b><u>SLEEVES</u></b>					
<b><u>HDPE sleeves for pipes not exceeding 100mm diameter</u></b>					
61	Sleeve not exceeding 250mm long	No	1		
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<b><u>HDPE sleeves for pipes exceeding 100mm and not exceeding 200mm diameter</u></b>			
62	Sleeve not exceeding 250mm long	No	1
<b><u>HOLES ETC</u></b>			
<b><u>Core drilling of hole for pipe not exceeding 100mm and not exceeding 150mm diameter</u></b>			
63	200mm Reinforced concrete slab, beam, wall, etc	No	1
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**REPAIRS & RENOVATIONS**

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	<u>BILL NO. 14</u>			
	<u>GLAZING</u>			
	<u>PREAMBLES</u>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<u>MIRRORS</u>			
	<u>Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with foam backing strip all round to plugs in walls</u>			
1	6mm "GG" or equal approved quality polished glass mirror 600 x 450mm high with polished edges fixed to wall with four 35mm round nose chromium plated mirror screws	No	3	
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Item No	<b><u>SECTION NO. 6</u></b>	Quantity	Rate	Amount
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	<b><u>PAINTWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>DESCRIPTIONS</u></b>			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	<b><u>PAINTWORK, ETC TO NEW WORK</u></b>			
	<b><u>ON FLOATED PLASTER</u></b>			
	<b><u>Prepare, stop and apply one coat masonry primer and two coats acrylic PVA paint</u></b>			
1	On internal plastered walls	m2	690	
	<b><u>ON PLASTERBOARD</u></b>			
	<b><u>Prepare, stop and apply two full coats semi-gloss PVA co-polymer paint to comply with SABS Specification No. 643</u></b>			
2	On ceilings and cornices	m2	368	
	<b>Carried to Collection</b>			
	Section No. 6 Section 6: Nutrition Centre Bill No. 15 Paintwork <b>REPAIRS &amp; RENOVATIONS</b>			R

**ON FIBRE-CEMENT**

**Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use**

3	On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	46
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**ON METAL**

**Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint**

4	On pressed steel door frames	m2	14
5	On steel beams	m2	58
6	On steel columns	m	27

**Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint**

7	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	146
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**Prepare and apply two coats bitumen paint**

8	On inside of 100 x 100mm galvanised sheet iron eaves gutter before fixing	m2	35
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**ON WOOD**

**Prepare, stop and apply one coat wood primer and two coats PVA paint**

9	On doors	m2	30
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**One coat pink wood primer and two coats clear polyurethane varnish**

10	On doors	m2	3
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11	On skirtings, rails, etc. not exceeding 300mm girth	m	44
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Paintwork

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Paintwork

**REPAIRS & RENOVATIONS**

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<p><b><u>SECTION No. 7</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
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**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	87
2	Holes	m3	24

**Extra over excavations in earth for excavation in:**

3	Soft rock	m3	9
4	Hard rock	m3	4

**Extra over all excavations for carting away**

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	12
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**Risk of collapse of excavations**

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	258
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**Keeping excavations free of water**

7	Keeping excavations free of water		Item
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 Earthworks (Provisional)  
**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>					
8	Backfilling to trenches, holes, etc	m3	49		
<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 97% Mod AASHTO to density</u></b>					
9	Under floors, steps, pavings, etc	m3	57		
<b><u>Earth filling of G6 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>					
10	Under floors, steps, pavings, etc	m3	52		
<b><u>Coarse river sand filling supplied by the contractor</u></b>					
11	Under floors etc	m3	9		
<b><u>Compaction of surfaces</u></b>					
12	Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	172		
<b><u>Prescribed density tests on filling</u></b>					
13	"Modified AASHTO Density" test	No	10		
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>					
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>					
14	Under floors, etc including forming and poisoning shallow furrows etc and filling in furrows and ramming	m2	172		
15	To bottoms and sides of trenches, etc	m2	255		
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Earthworks (Provisional)

**REPAIRS & RENOVATIONS**

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<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 7 Section 7: Media Centre Bill No. 2 Concrete, Formwork and Reinforcement <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	2
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**25 MPa Concrete in:**

2	Plinths, etc	m3	2
3	Aprons	m3	5
4	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	54

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

5	Ramps	m3	2
6	Footings	m3	12
7	Holes	m3	2
8	Stub columns	m3	1
9	Surface beds	m3	26

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Section No. 7  
 Section 7: Media Centre  
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 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

**TEST BLOCKS**

10	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	10
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**MOVEMENT JOINTS, ETC**

**Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces**

11	10mm Joints exceeding 300mm high	m	76
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**Saw cut joints**

12	4 x 30mm Saw cuts in top of concrete	m	46
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**CONCRETE SUNDRIES**

**Finishing top surfaces of concrete with wooden float finish**

13	Ramps, etc	m2	6
14	Aprons, etc	m2	66
15	Slabs, etc	m2	9

**ROUGH FORMWORK (DEGREE OF ACCURACY II)**

**Rough formwork to sides**

16	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	6
17	Sides of stub columns	m2	8

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 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

**REINFORCEMENT**

**Reinforcement**

**Mild tensile steel reinforcement to structural concrete work**

18	10mm Diameter bars	t	1.00
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**High tensile steel reinforcement to structural concrete work**

19	12mm Diameter bars	t	1.00
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20	16mm Diameter bars	t	1.00
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**Fabric reinforcement**

21	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	172
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22	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	70
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Section 7: Media Centre

Bill No. 2

Concrete, Formwork and Reinforcement

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Bill No. 2

Concrete, Formwork and Reinforcement

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 7</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Face bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b><u>Pointing</u></b>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<b><u>FOUNDATIONS (PROVISIONAL)</u></b>			
	<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>			
1	Half brick walls	m2	4	
2	One brick walls	m2	109	
	<b>Carried to Collection</b>			R
	Section No. 7 Section 7: Media Centre Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b>			

**SUPERSTRUCTURE****Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar**

3	Half brick walls	m2	10
4	One brick walls	m2	224

**BRICKWORK SUNDRIES****Brickwork reinforcement**

5	75mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	44
6	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	1,224

**Concrete prestressed fabricated lintels**

7	115 x 75mm Lintels in lengths not exceeding 3m	m	3
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**Turning pieces**

8	110mm Wide turning piece to lintels, etc	m	18
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**Joint forming material in movement joints**

9	Movement joint formed of 20mm soft board built in vertically between brickwork (Provisional)	m2	18
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**Galvanised hoop iron cramps, ties, etc**

10	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No	54
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Section No. 7  
 Section 7: Media Centre  
 Bill No. 3  
 Masonry  
**REPAIRS & RENOVATIONS**

**FACE BRICKWORK**

**Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.**

11	Extra over brickwork for face brickwork	m2	162
12	Extra over brickwork for face brickwork in foundation	m2	52
13	Half brickwall in facing in beamfilling pointed one side	m2	20
<b><u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u></b>			
14	Brick-on-edge header course lintel pointed on both faces and 230mm wide soffit	m	20
15	Cut face brick-on-edge internal window cill, 115mm wide, set horizontal and flush in cement mortar and pointed on top and front edge	m	18
16	Coping on top of one brick wall	m	45

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Masonry

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Bill No. 3

Masonry

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	14	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	172	
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	Section No. 7 Section 7: Media Centre Bill No. 4 Waterproofing <b>REPAIRS &amp; RENOVATIONS</b>			R

**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	46
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	76

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Waterproofing

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Section 7: Media Centre

Bill No. 4

Waterproofing

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 7</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b>Note:</b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber/steel purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	206	
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	Section No. 7 Section 7: Media Centre Bill No. 5 Roof Coverings <b>REPAIRS &amp; RENOVATIONS</b>			R

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,6mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

2	Roof covering with pitch not exceeding 25 degrees	m2	206
3	Ridge capping 562mm girth 3 times bent and notched to suit roof profile	m	12
4	Hip capping 562mm girth 3 times bent and notched to suit roof profile	m	12

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**REPAIRS & RENOVATIONS**

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Bill No. 5

Roof Coverings

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Bill No. 5

Roof Coverings

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 7</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 7 Section 7: Media Centre Bill No. 6 Carpentry and Joinery <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

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**REPAIRS & RENOVATIONS**

Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum plasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc.

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**REPAIRS & RENOVATIONS**

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e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1 Media Centre approximately 172m<sup>2</sup> measured flat

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**REPAIRS & RENOVATIONS**

**Sawn softwood**

2	50 x 228mm Bearers bolted to steel columns	m	41
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Carpentry and Joinery  
**REPAIRS & RENOVATIONS**

**FASCIAS AND BARGE BOARDS**

**Nutec board or equal approved**

3	10 x 225mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends "LI"	m	79
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**SKIRTINGS**

**Wrought meranti**

4	19 x 76mm Skirtings with 19mm quarter round nailed to walls	m	73
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**DOORS**

**NOTE:**

All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dove tailed shape.

**40mm thick horizontal hardwood entrance door suitable for paint on both sides, hung to steel frames and installed in accordance with the manufacturers' recommendations**

5	44mm Single door, size 813 x 2 032mm high	No	2
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**Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames**

6	44mm Door 813 x 2032mm high	No	2
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**REPAIRS & RENOVATIONS**

**Tempered fibre-cement internal window sills**

7 150 x 15mm thick internal window sill installed below window with sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in class II mortar with plastic slip joints at end at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations

m

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Carpentry and Joinery

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Carpentry and Joinery

**REPAIRS & RENOVATIONS**

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<p><b><u>BILL NO. 7</u></b></p>			
<p><b><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p>			
<p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere</p>			
<p><b><u>Proprietary suspended ceilings</u></b></p>			
<p>Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)</p>			
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<b><u>INSULATION, ETC</u></b>					
<b><u>Fibreglass insulation</u></b>					
1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions	m2	135		
<b><u>NAILED UP CEILINGS</u></b>					
<b><u>6.4mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster</u></b>					
2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood brandering at 400mm centres in one direction and around edges where required for fixing cornices, brandering spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	135		
3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	2		
<b><u>6mm "Everite Nutec" or equal approved fibre-cement boards with H-profile primed steel jointing cover strips over joints</u></b>					
4	Ceilings on 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	37		
<b><u>Cornices</u></b>					
5	76mm Gypsum coved trim cornice	m	111		
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Ceilings, Partitions and Access Flooring

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Ceilings, Partitions and Access Flooring

**REPAIRS & RENOVATIONS**

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	<u>BILL NO. 8</u>			
	<u>FLOOR COVERINGS, WALL LININGS, ETC</u>			
	<u>PREAMBLES</u>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	NOTE : All materials shall be in colours to be selected by the Representative/Agent and, where applicable, laid to approved patterns			
	<u>FLOOR COVERINGS</u>			
	<u>2,5mm Semi-flexible vinyl floor tiles laid in two colour pattern on cement screed (elsewhere)</u>			
1	On floors	m2	135	
	<u>POLISH, SEALERS, ETC</u>			
	<u>Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish complying with SABS 1042, including buffing after application of each coat of polish</u>			
2	On vinyl flooring	m2	135	
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	Floor Coverings, Wall linings, etc			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No	<b><u>SECTION NO. 7</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 9</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>CATCHES,CABIN HOOKS, ETC</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	2	
	<b><u>LOCKS</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
2	Code 2252-75 two lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	2	
3	Code 2252-76 three lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	2	
	<b><u>"Cisa" or equal approved</u></b>			
4	CISA solid hardened steel padlock (Code: 28056-55-KD) with a C2000 5 pin keying system with a 55mm body size and supplied keyed different.	No	1	
	<b>Carried to Collection</b>			
	Section No. 7 Section 7: Media Centre Bill No. 9 Ironmongery <b>REPAIRS &amp; RENOVATIONS</b>			R

**NUMERAL AND NAME PLATES**

**Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tap screwed to steel door frame with chromium plated dome-headed selftapping screws**

5	3mm Thick x 32mm wide plate with letters "WORK ROOM"	No	1
6	3mm Thick x 32mm wide plate with letters "STORE ROOM"	No	1
7	3mm Thick x 32mm wide plate with letters "MEDIA CENTRE"	No	1

**"Union" or equal approved**

8	"Code AL5022-E10" Natural anodised aluminium plate with fire extinguisher symbol	No	1
9	"Code AL5022-E10" Natural anodised aluminium plate with fire hose reel symbol	No	1

**STEEL CUPBOARDS**

**Approved steel lockers with standard baked enamel finish**

10	Industrial double door steel cupboard 910 x 610 x 2134mm high with five shelves	No	1
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**Carried to Collection**

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Section No. 7  
 Section 7: Media Centre  
 Bill No. 9  
 Ironmongery  
**REPAIRS & RENOVATIONS**

**PINNING BOARDS, WRITING BOARDS,  
PROJECTION SCREENS, ETC**

**Carpet pinning boards comprising aluminium frame,  
pen tray and fixing components included with round  
plastic corners installed according to  
manufacturer's details.**

**"Vitrex" or equal approved**

11 Parrot Bulletin board aluminium frame or similar approved 2400x1200mm fixed to brickwall. Anodized Aluminium frame pinnable felt notice board with landscape orientation and concealed wall fixing kit included, colour: Laurel Grey, fabric type: Wool Felt with SABS Class 3 fire rating mounted at 1200mm height from FFL. Manufactured in accordance with SANS 1415:2005 all installed by approved installer in accordance with SANS 10186:2000.

No

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**REPAIRS & RENOVATIONS**

Section No. 7

Section 7: Media Centre

Bill No. 9

Ironmongery

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Section 7: Media Centre

Bill No. 9

Ironmongery

**REPAIRS & RENOVATIONS**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 7</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Descriptions of bolts shall be deemed to include nuts and washers.			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.			
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.			
	<b><u>STEEL HANDRAILS, BALUSTRADES, ETC</u></b>			
	<b><u>Welded balustrading</u></b>			
1	Horizontal balustrades 900mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete (bolts elsewhere), 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	21	
2	Extra over for L-intersection of horizontal balustrades	No	8	
	<b>Carried to Collection</b>			R
	Section No. 7 Section 7: Media Centre Bill No. 10 Metalwork <b>REPAIRS &amp; RENOVATIONS</b>			

3	Extra over for flat closed end	No	4
4	80mm Long x 10mm wide rawl bolt fixed	No	32
<b><u>SUNDRY METALWORK</u></b>			
<b><u>Welded steel columns, etc.</u></b>			
5	101.6 x 4.5mm CHS column size approximately 4000mm high with 200 x 200 x 10mm thick base plate with four holes drilled and U shaped holding bracket size 100 x 60 x 4,5mm thick formed of rectangular hollow section 200mm long twice drilled	No	6
6	100mm Long x 10mm diameter bolt and nut with two (2) washers	No	24
7	85mm Long x 10mm wide rawl bolt fixed	No	12
<b><u>Welded steel beam, etc</u></b>			
8	152 x 152 x 4.5 SHS beam welded to column	m	22
9	75 x 50 x 6mm mild steel lipped channel welded to beam	m	22
10	10 mm Diameter x 75 mm long expansion bolt	No	10

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Section No. 7  
 Section 7: Media Centre  
 Bill No. 10  
 Metalwork  
**REPAIRS & RENOVATIONS**

**STEEL GATES, SCREENS, ETC**

**The following in framed and welded mild steel security grille gates including fixing in position complete**

11	Gate frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc. size 813 x 2066mm high overall	No	1
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**PRESSED STEEL DOOR FRAMES**

**Double rebated pressed frames suitable for half brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf**

12	Frame for door size, 813 x 2 032mm high	No	1
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**Double rebated pressed frames suitable for one brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf**

13	Frame for door size, 813 x 2 032mm high	No	2
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**MILD STEEL BURGLAR BARS**

**50 x 8mm steel flat bars fixed to brick walls detail as per Architectural drawings attached to these bills of quantities**

14	Window size 1000 x 900mm high	No	4
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15	Window size 1 000 x 1 200mm high	No	14
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Section No. 7  
 Section 7: Media Centre  
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 Metalwork  
**REPAIRS & RENOVATIONS**

**ALUMINIUM WINDOWS**

**Standard natural anodised window frame, complete with and including ironmongery and 5mm clear safety glazing as per the specifications and window schedules at the back of the bills of quantities**

16	Window size 1000 x 900mm high	No	4
17	Window size 1 000 x 1 200mm high	No	14

**ALUMINIUM DOOR LOUVRE**

**Approved fixed louvre door units screwed into timber frames**

18	Purpose made louvre unit for 300 x 300mm high opening	No	1
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Section 7: Media Centre

Bill No. 10

Metalwork

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Section 7: Media Centre

Bill No. 10

Metalwork

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 7</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 11</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Plaster on concrete</u></b>			
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work			
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work			
	<b><u>1:3 screeds on concrete with trowel float finish</u></b>			
1	30mm Thick on floors and landings to receive vinyl tiles	m2	135	
	<b><u>1:3 Screeds on concrete with wooden float finish</u></b>			
2	30mm Thick on floors and landings to receive ceramic tiles	m2	37	
	<b>Carried to Collection</b>			R
	Section No. 7 Section 7: Media Centre Bill No. 11 Plastering <b>REPAIRS &amp; RENOVATIONS</b>			

**SELF LEVELLING FLOOR COMPOUND**

**5mm thick commercial grade self-levelling screed (over 25MPA) and moisture barrier laid in accordance with the manufacturer's instructions**

3	On floors	m2	135
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**INTERNAL PLASTER**

**Cement plaster on brickwork**

4	On walls	m2	220
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5	On narrow widths	m2	2
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**CORNER PROTECTORS, DIVIDING STRIPS, ETC.**

6	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	22
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 Plastering  
**REPAIRS & RENOVATIONS**

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Section 7: Media Centre

Bill No. 11

Plastering

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Section 7: Media Centre

Bill No. 11

Plastering

**REPAIRS & RENOVATIONS**

Item No	<u>SECTION NO. 7</u>	Quantity	Rate	Amount
	<u>BILL NO. 12</u>			
	<u>TILING</u>			
	<u>PREAMBLES</u>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<u>FLOOR TILING</u>			
	<u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u>			
1	On floors and landings	m2	37	
2	Skirting 120mm high	m	17	
	<b>Carried Forward to Summary of Section No. 7</b>			R
	Section No. 7 Section 7: Media Centre Bill No. 12 Tiling <b>REPAIRS &amp; RENOVATIONS</b>			

Item No	<b><u>SECTION NO. 7</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 13</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>GUTTERS, DOWNPIPES, ETC.</u></b>			
	<b><u>Commercial and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc</u></b>			
1	100 x 100mm galvanised section eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	79	
2	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	8	
3	Extra over 100 x 100 x 0.6mm thick eaves gutter for stopped end	No	4	
	<b>Carried to Collection</b>			R
	Section No. 7 Section 7: Media Centre Bill No. 13 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b>			



Section No. 7

Section 7: Media Centre

Bill No. 13

Plumbing and Drainage (Provisional)

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Section 7: Media Centre

Bill No. 13

Plumbing and Drainage (Provisional)

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 7</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 14</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>DESCRIPTIONS</u></b>			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	<b><u>PAINTWORK, ETC TO NEW WORK</u></b>			
	<b><u>ON FLOATED PLASTER</u></b>			
	<b><u>Prepare, stop and apply one coat masonry primer and two coats acrylic PVA paint</u></b>			
1	On internal plastered walls	m2	220	
	<b><u>ON PLASTERBOARD</u></b>			
	<b><u>Prepare, stop and apply two full coats semi-gloss PVA co-polymer paint to comply with SABS Specification No. 643</u></b>			
2	On ceilings and cornices	m2	135	
	<b>Carried to Collection</b>			
	Section No. 7 Section 7: Media Centre Bill No. 14 Paintwork <b>REPAIRS &amp; RENOVATIONS</b>			R

**ON FIBRE-CEMENT**

**Prepare, stop and apply two full coats semi-gloss PVA co-polymer paint to comply with SABS Specification No. 643**

3	On ceilings and cornices	m2	37
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**Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use**

4	On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	36
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**ON METAL**

**Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint**

5	On pressed steel door frames	m2	8
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6	On steel beam	m2	19
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7	On steel column	m	15
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**Prepare and apply two coats bitumen paint**

8	On inside of 100 x 100mm galvanised sheet iron eaves gutter before fixing	m2	28
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**Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint**

9	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	108
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**ON WOOD**

**Prepare, stop and apply one coat wood primer and two coats PVA paint**

10	On doors	m2	7
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 Paintwork  
**REPAIRS & RENOVATIONS**



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Section 7: Media Centre

Bill No. 14

Paintwork

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Section 7: Media Centre

Bill No. 14

Paintwork

**REPAIRS & RENOVATIONS**

Section No. 7

Section 7: Media Centre

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3	Masonry	300	
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<p><b><u>SECTION NO. 8</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 8 Section 8: Science Laboratory Bill No. 1 Earthworks (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	83
2	Holes	m3	20

**Extra over excavations in earth for excavation in:**

3	Soft rock	m3	6
4	Hard rock	m3	3

**Extra over all excavations for carting away**

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	12
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**Risk of collapse of excavations**

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	242
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**Keeping excavations free of water**

7	Keeping excavations free of water		Item
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**REPAIRS & RENOVATIONS**



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Earthworks (Provisional)

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Earthworks (Provisional)

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 8</u></b></p>			
<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 8 Section 8: Science Laboratory Bill No. 2 Concrete, Formwork and Reinforcement <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	2
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**25 MPa Concrete in:**

2	Plinths, etc	m3	2
3	Aprons	m3	5
4	Thickening down the edge of apron 150mm deep ,200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	50

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

5	Ramps	m3	2
6	Footings	m3	11
7	Holes	m3	1
8	Stub columns	m3	1
9	Surface beds	m3	22

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Section No. 8  
 Section 8: Science Laboratory  
 Bill No. 2  
 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

**TEST BLOCKS**

10	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	10
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**MOVEMENT JOINTS, ETC**

**Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces**

11	10mm Joints exceeding 300mm high	m	69
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**Saw cut joints**

12	4 x 30mm Saw cuts in top of concrete	m	57
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**CONCRETE SUNDRIES**

**Finishing top surfaces of concrete with wooden float finish**

13	Ramps, etc	m2	6
14	Aprons, etc	m2	50
15	Slabs, etc	m2	9

**ROUGH FORMWORK (DEGREE OF ACCURACY II)**

**Rough formwork to sides**

16	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	6
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 Section 8: Science Laboratory  
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 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

**REINFORCEMENT**

**Reinforcement**

**Mild tensile steel reinforcement to structural concrete work**

17	10mm Diameter bars	t	1.00
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**High tensile steel reinforcement to structural concrete work**

18	12mm Diameter bars	t	1.00
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19	16mm Diameter bars	t	1.00
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**Fabric reinforcement**

20	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	146
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21	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	63
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Concrete, Formwork and Reinforcement

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Section 8: Science Laboratory

Bill No. 2

Concrete, Formwork and Reinforcement

**REPAIRS & RENOVATIONS**

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<p><b><u>SECTION NO. 8</u></b></p>			
<p><b><u>BILL NO. 3</u></b></p>			
<p><b><u>MASONRY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>BRICKWORK</u></b></p>			
<p><b><u>Sizes in descriptions</u></b></p>			
<p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p>			
<p><b><u>Face bricks</u></b></p>			
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
<p><b><u>Pointing</u></b></p>			
<p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
<p><b><u>Samples</u></b></p>			
<p>Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 8 Section 8: Science Laboratory Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**FOUNDATIONS (PROVISIONAL)****Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar**

1	Half brick walls	m2	1
2	One brick walls	m2	88

**SUPERSTRUCTURE****Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar**

3	Half brick walls	m2	3
4	One brick walls	m2	213

**BRICKWORK SUNDRIES****Brickwork reinforcement**

5	75mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	12
6	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	1,096

**Concrete prestressed fabricated lintels**

7	115 x 75mm Lintels in lengths not exceeding 3m	m	4
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**Turning pieces**

8	110mm Wide turning piece to lintels, etc	m	13
---	--	---	----

**Joint forming material in movement joints**

9	Movement joint formed of 20mm soft board built in vertically between brickwork (Provisional)	m2	18
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**REPAIRS & RENOVATIONS**



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Section 8: Science Laboratory

Bill No. 3

Masonry

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Bill No. 3

Masonry

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 8</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	13	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	146	
	<b>Carried to Collection</b>			
	Section No. 8 Section 8: Science Laboratory Bill No. 4 Waterproofing <b>REPAIRS &amp; RENOVATIONS</b>			R

**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	57
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	69

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**REPAIRS & RENOVATIONS**

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Waterproofing

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Section 8: Science Laboratory

Bill No. 4

Waterproofing

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 8</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber/steel purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	175	
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<b><u>0,6mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side</u></b>			
2	Roof covering with pitch not exceeding 25 degrees	m2	175	
3	Ridge capping 562mm girth 3 times bent and notched to suit roof profile	m	10	
4	Hip capping 562mm girth 3 times bent and notched to suit roof profile	m	12	
	<b>Carried Forward to Summary of Section No. 8</b>			R
	Section No. 8 Section 8: Science Laboratory Bill No. 5 Roof Coverings, etc <b>REPAIRS &amp; RENOVATIONS</b>			

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 8</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 8 Section 8: Science Laboratory Bill No. 6 Carpentry and Joinery <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

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Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum plasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc.

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e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

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**REPAIRS & RENOVATIONS**

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1	Science Laboratory Block approximately 146m <sup>2</sup> measured flat			Item
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**Sawn softwood**

2	50 x 228mm Bearers bolted to steel columns	m		20
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**FASCIAS AND BARGE BOARDS**

**Nutec board or equal approved**

3	225 x 9mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends	m		60
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**SKIRTINGS**

**Wrought meranti**

4	19 x 76mm Skirtings with 19mm quarter round nailed to walls	m		69
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**REPAIRS & RENOVATIONS**

**DOORS**

NOTE:

All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dove tailed shape.

**Wrought hardwood framed and batten doors hung to timber frames (elsewhere measured) of 108 x 40mm top rail and stiles, 144x 22mm middle ledge, 220 x 22mm bottom rail, filled with 76 x 22mm tongued and grooved V-jointed battens, with 50 x 50mm hardwood weather bar routed into bottom panel of door**

5	40mm Single door, size 813 x 2032mm high	No	2
	<b><u>Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames</u></b>		
6	40mm Door 813 x 2032mm high	No	2

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**REPAIRS & RENOVATIONS**

Door grills, etc

Extra over for 300 x 300mm framed opening for aluminium unit (louvre unit elsewhere)

7	300 x 300mm aluminium louvre	m	1
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Carpentry and Joinery

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Carpentry and Joinery

**REPAIRS & RENOVATIONS**

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<p><b><u>SECTION NO. 8</u></b></p>			
<p><b><u>BILL NO. 7</u></b></p>			
<p><b><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p>			
<p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere</p>			
<p><b><u>Proprietary suspended ceilings</u></b></p>			
<p>Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 8                  Section 8: Science Laboratory                  Bill No. 7                  Ceilings, Partitions and Access Flooring  <b>REPAIRS &amp; RENOVATIONS</b></p>			R

<b><u>INSULATION, ETC</u></b>					
<b><u>Fibreglass insulation</u></b>					
1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions	m2	146		
<b><u>NAILED UP CEILINGS</u></b>					
2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood brandering at 400mm centres in one direction and around edges where required for fixing cornices, brandering spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	114		
3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	2		
<b><u>6mm "Everite Nutec" or equal approved fibre-cement boards with H-profile primed steel jointing cover strips over joints</u></b>					
4	Ceilings on 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	32		
<b><u>Cornices</u></b>					
5	76mm Gypsum coved trim cornice	m	69		
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Ceilings, Partitions and Access Flooring					
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Bill No. 7

Ceilings, Partitions and Access Flooring

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Bill No. 7

Ceilings, Partitions and Access Flooring

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 8</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 8</u></b>			
	<b><u>FLOOR COVERINGS, WALL LININGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	NOTE : All materials shall be in colours to be selected by the Representative/Agent and, where applicable, laid to approved patterns			
	<b><u>FLOOR COVERINGS</u></b>			
	<b><u>2,5mm Semi-flexible vinyl floor tiles laid in two colour pattern on cement screed (elsewhere)</u></b>			
1	On floors	m2	114	
	<b><u>POLISH, SEALERS, ETC</u></b>			
	<b><u>Sweep, clean with detergent complying with SABS 825, rinse and apply three coats of water emulsion polish complying with SABS 1042, including buffing after application of each coat of polish</u></b>			
2	On vinyl flooring	m2	114	
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	Bill No. 8			
	Floor Coverings, Wall linings, etc			
	<b>REPAIRS &amp; RENOVATIONS</b>			
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Item No	<b><u>SECTION NO. 8</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 9</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>CATCHES, CABIN HOOKS, ETC</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	1	
	<b><u>LOCKS</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
2	Code 2252-75 two lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	2	
3	Code 2252-76 three lever upright mortice lock complete with pair of satin-chrome handles plugged.	No	2	
	<b><u>"Cisa" or equal approved</u></b>			
4	CISA solid hardened steel padlock (Code: 28056-55-KD) with a C2000 5 pin keying system with a 55mm body size and supplied keyed different.	No	1	
	<b><u>SUNDRIES</u></b>			
	<b><u>Dorma or equal approved</u></b>			
5	Stainless steel door stop type DDSS-SS-017 plugged	No	4	
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	Ironmongery			
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**NUMERAL AND NAME PLATES**

**Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tap screwed to steel door frame with chromium plated dome-headed selftapping screws**

6	3mm Thick x 32mm wide plate with letters "EQUIPMENT STORE"	No	1
7	3mm Thick x 32mm wide plate with letters "CHEMICAL STORE"	No	1
8	3mm Thick x 32mm wide plate with letters "SCIENCE LABORATORY"	No	1

**"Union" or equal approved**

9	"Code AL5022-E10" Natural anodised aluminium plate with fire extinguisher symbol	No	1
10	"Code AL5022-E10" Natural anodised aluminium plate with fire hose reel symbol	No	1

**MATS**

**Squeegee or equal approved**

11	1 300 x 1 300 x 17mm thick floor dust trap mat glued onto screed in and including mat surround fixed with 25 x 25mm aluminium angle plugged to concrete.	No	1
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**PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC**

**Carpet pinning boards comprising aluminium frame, pen tray and fixing components included with round plastic corners installed according to manufacturer's details.**

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Section No. 8  
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 Ironmongery  
**REPAIRS & RENOVATIONS**

**"Vitrex" or equal approved**

12 Parrot Bulletin board aluminium frame or similar approved 2400x1200mm fixed to brickwall. Anodized Aluminium frame pinnable felt notice board with landscape orientation and concealed wall fixing kit included, colour: Laurel Grey, fabric type: Wool Felt with SABS Class 3 fire rating mounted at 1200mm height from FFL. Manufactured in accordance with SANS 1415:2005 all installed by approved installer in accordance with SANS 10186:2000.

No

2

13 Vitrex or similar approved Model 2100 standard vitreous enamel steel wall mounted educational range chalkboard, overall size 1200 mm high x 2400 mm wide, reference (2109), supplied complete with integral anodised aluminium chalk rail, fixing components and secured in position to brickwork at 1200mm height from FFL. Enamel steel chalkboard surface to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2). All chalkboards to comply with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein.

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Ironmongery

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Ironmongery

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 8</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Descriptions of bolts shall be deemed to include nuts and washers.			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.			
	<b><u>STEEL HANDRAILS, BALUSTRADES, ETC</u></b>			
	<b><u>Welded balustrading</u></b>			
1	Horizontal balustrades 900mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete (bolts elsewhere), 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	21	
2	Extra over for L-intersection of horizontal balustrades	No	8	
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	Section No. 8 Section 8: Science Laboratory Bill No. 10 Metalwork <b>REPAIRS &amp; RENOVATIONS</b>			

3	Extra over for flat closed end	No	4
4	80mm Long x 10mm wide rawl bolt fixed	No	32
<b><u>SUNDRY METALWORK</u></b>			
<b><u>Welded steel columns, etc.</u></b>			
5	101.6 x 4.5mm CHS column size approximately 4000mm high with 200 x 200 x 10mm thick base plate with four holes drilled and U shaped holding bracket size 100 x 60 x 4,5mm thick formed of rectangular hollow section 200mm long twice drilled	No	5
6	100mm Long x 10mm diameter bolt and nut with two (2) washers	No	20
7	85mm Long x 10mm wide rawl bolt fixed	No	10
<b><u>Welded steel beam, etc</u></b>			
8	152 x 152 x 4.5 SHS beam welded to column	m	19
9	75 x 50 x 6mm mild steel lipped channel welded to beam	m	19
10	10 mm Diameter x 75 mm long expansion bolt	No	10

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 Bill No. 10  
 Metalwork  
**REPAIRS & RENOVATIONS**

**STEEL GATES, SCREENS, ETC**

**The following in framed and welded mild steel security grille gates including fixing in position complete**

11	Gate frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc. size 813 x 2066mm high overall	No	1
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**PRESSED STEEL DOOR FRAMES**

**Double rebated pressed frames suitable for one brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf**

12	Frame for door size, 813 x 2 032mm high	No	4
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**MILD STEEL BURGLAR BARS**

**50 x 8mm steel flat bars fixed to brick walls detail as per Architectural drawings attached to these bills of quantities**

13	Window size 1000 x 900mm high	No	13
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**ALUMINIUM WINDOWS**

**Standard natural anodised window frame, complete with and including ironmongery and 5mm clear safety glazing as per the specifications and window schedules at the back of the bills of quantities**

14	Window size 1000 x 900mm high	No	13
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Section No. 8  
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 Bill No. 10  
 Metalwork  
**REPAIRS & RENOVATIONS**

**ALUMINIUM DOOR LOUVRE**

**Approved fixed louvre door units screwed into timber frames**

15	Purpose made louvre unit for 300 x 300mm high opening	No	1
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Section 8: Science Laboratory

Bill No. 10

Metalwork

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Bill No. 10

Metalwork

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 8</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 11</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Plaster on concrete</u></b>			
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work			
	<b><u>SCREEDS</u></b>			
	<b><u>1:3 screeds on concrete with trowel float finish</u></b>			
1	30mm Thick on floors and landings to receive vinyl tiles	m2	114	
	<b><u>1:3 Screeds on concrete with wooden float finish</u></b>			
2	30mm Thick on floors and landings to receive ceramic tiles	m2	32	
	<b><u>SELF LEVELLING FLOOR COMPOUND</u></b>			
	<b><u>5mm thick commercial grade self-levelling screed (over 25MPA) and moisture barrier laid in accordance with the manufacturer's instructions</u></b>			
3	On floors	m2	114	
	<b>Carried to Collection</b>			R
	Section No. 8 Section 8: Science Laboratory Bill No. 11 Plastering <b>REPAIRS &amp; RENOVATIONS</b>			

**INTERNAL PLASTER**

**Cement plaster on brickwork**

4	On walls	m2	207
5	On narrow widths	m2	2

**Cement plaster on concrete**

**CORNER PROTECTORS, DIVIDING STRIPS,  
ETC.**

6	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	2
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**Carried to Collection**

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 Plastering  
**REPAIRS & RENOVATIONS**

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Section 8: Science Laboratory

Bill No. 11

Plastering

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Bill No. 11

Plastering

**REPAIRS & RENOVATIONS**



Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 8</u></b></p>			
<p><b><u>BILL NO. 13</u></b></p>			
<p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>uPVC pipes and fittings:</u></b></p>			
<p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p>			
<p><b><u>Copper pipes:</u></b></p>			
<p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be approved by the Architect. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p>			
<p><b><u>Fixing of pipes</u></b></p>			
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 8 Section 8: Science Laboratory Bill No. 13 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>			R

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

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**REPAIRS & RENOVATIONS**

R

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**User note:**

Please note the rate for butt welding is deemed to be included in all fittings

**RAINWATER DISPOSAL**

**GUTTERS, DOWNPIPES, ETC.**

**0.6mm galvanised and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc**

1	100 x 100mm eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	74
2	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	8
3	Extra over 100x 100mm eaves gutter for stopped end	No	4

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**REPAIRS & RENOVATIONS**

4	100mm diameter rainwater downpipe with brackets fixed to brick wall or concrete	m	36	
5	Extra over 75mm dia. rainwater pipe for bend	No	8	
6	Extra over 75mm rainwater pipe for shoe	No	8	
<b><u>SOIL DRAINAGE</u></b>				
7	Excavation not exceeding 1m deep for drain trenches	m3	60	
8	Excavation exceeding 1m and not exceeding 2m deep for drain trenches	m3	45	
9	Backfilling to drain trenches compacted to 93% Mod AASHTO density	m3	55	
10	Selected sand filling from the excavations in bedding under and filling around pipes	m3	35	
<b><u>Extra over bulk excavation in earth for excavation in</u></b>				
11	Soft rock	m3	8	
12	Hard rock	m3	4	
<b><u>HDPE pipe</u></b>				
<b><u>Supply mains pipe, bed, lay joint, bed and test sewer pipes with thermal welded joints:</u></b>				
13	110mm Pipes laid in trenches (trenches elsewhere)	m	70	
<b><u>Extra over HDPE pipes for fittings</u></b>				
14	110mm Bend	No	4	
15	110mm Junction	No	4	
16	110mm Access bend	No	4	
17	110mm Access junction	No	4	
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<b><u>HDPE gulleys</u></b>			
18	110mm Gulley not exceeding 750mm deep	No	8
<b><u>Sundries</u></b>			
19	Testing soil drainage system		Item
<b><u>SANITARY FITTINGS</u></b>			
<b><u>"Vaal" or equal approved</u></b>			
20	450 x 335mm 'Laboratory sink' Vaal Sanitaryware (colour white) (code 234500) fixed to desk using 2 adjustable under slung brackets (code 8109Z0)	No	8
<b><u>WASTE UNIONS, ETC</u></b>			
21	32mm Basin waste union	No	8
<b><u>TAPS, VALVES, ETC</u></b>			
<b><u>Cobra Watertech or equal approved</u></b>			
22	Chrome plated approved laboratory mixer with aerated swivel outlet mounted on the sink. All items to be fully fitted with all necessary plumbing accessories.	No	8
23	20mm Full way stop cock	No	8
<b><u>SANITARY PLUMBING</u></b>			
<b><u>HDPE pipes</u></b>			
24	50mm Pipes	m	48
25	50mm Pipes chased into brick walls	m	40
26	110mm Pipes	m	40
<b><u>Extra over HDPE pipes for fittings</u></b>			
27	50mm Bend	No	16
<b>Carried to Collection</b>			
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**REPAIRS & RENOVATIONS AT GOAKGANYA PRIMARY**

**EIMS NO: 600100443**

**RFP041/2022**

28	50mm Access bend	No	16	
29	50mm Junction	No	16	
30	50mm Access junction	No	16	
31	110mm Bend	No	8	
32	110mm Access bend	No	8	
33	110mm Socket	No	8	
34	110mm Junction	No	8	
35	110mm Reducing junction	No	8	
36	110mm Access junction	No	8	
37	110mm Two-way vent valve	No	8	
	<b><u>Sundries</u></b>			
38	Testing water pipe system		Item	
	<b><u>WATER SUPPLIES</u></b>			
	<b><u>Class "O" copper pipes:</u></b>			
39	15mm Pipes chased in brickwork	m	60	
40	22mm Pipes chased in brickwork	m	40	
41	28mm Pipes	m	30	
	<b><u>Extra over class "O" copper pipes for capillary fittings</u></b>			
42	15mm Fittings	No	30	
43	22mm Fittings	No	24	
44	28mm Fittings	No	16	
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<b><u>Copper flexible service pipes</u></b>					
45	15mm Service pipe 340mm girth	No	2		
<b><u>SLEEVES</u></b>					
<b><u>HDPE sleeves for pipes not exceeding 100mm diameter</u></b>					
46	Sleeve not exceeding 250mm long	No	8		
<b><u>HDPE sleeves for pipes exceeding 100mm and not exceeding 200mm diameter</u></b>					
47	Sleeve not exceeding 250mm long	No	2		
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Plumbing and Drainage (Provisional)

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Plumbing and Drainage (Provisional)

**REPAIRS & RENOVATIONS**



	<b><u>Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use</u></b>			
4	On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	28	
	<b><u>ON METAL</u></b>			
	<b><u>Prepare and apply two coats bitumen paint</u></b>			
5	On inside of 100 x 100mm galvanised sheet iron eaves gutter before fixing	m2	26	
	<b><u>Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint</u></b>			
6	On pressed steel door frames	m2	4	
	<b><u>Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint</u></b>			
7	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	3	
8	On steel members	m2	17	
9	On steel columns	m	57	
	<b><u>ON WOOD</u></b>			
	<b><u>Prepare, stop and apply one coat wood primer and two coats PVA paint</u></b>			
10	On doors	m2	7	
	<b><u>Prepare and apply three coats varnish</u></b>			
11	On laminated beam	m2	11	
12	On doors	m2	3	
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	Paintwork			
	<b>REPAIRS &amp; RENOVATIONS</b>			

13	<p><u>One coat pink wood primer and two coats clear polyurethane varnish</u></p> <p>On skirtings, rails, etc. not exceeding 300mm girth</p>	m	69	
<b>Carried to Collection</b>				R
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Paintwork

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**REPAIRS & RENOVATIONS**

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Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 9</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 9 Section 9: Refuse Yard &amp; Pump House Bill No. 1 Earthworks (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	40
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**Extra over excavations in earth for excavation in:**

2	Soft rock	m3	4
3	Hard rock	m3	2

**Extra over all excavations for carting away**

4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	42
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**Risk of collapse of excavations**

5	Sides of trench and hole excavations not exceeding 1,5m deep	m2	134
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**Keeping excavations free of water**

6	Keeping excavations free of water		Item
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 Earthworks (Provisional)  
**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>					
7	Backfilling to trenches, holes, etc	m3	22		
<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 97% Mod AASHTO to density</u></b>					
8	Under floors, steps, pavings, etc	m3	28		
<b><u>Earth filling of G6 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>					
9	Under floors, steps, pavings, etc	m3	25		
<b><u>Coarse river sand filling supplied by the contractor</u></b>					
10	Under floors etc	m3	4		
<b><u>Compaction of surfaces</u></b>					
11	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	83		
<b><u>Prescribed density tests on filling</u></b>					
12	"Modified AASHTO Density" test	No	15		
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>					
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>					
13	Under floors, etc including forming and poisoning shallow furrows etc and filling in furrows and ramming	m2	83		
14	To bottoms and sides of trenches, etc	m2	143		
<b>Carried to Collection</b>					
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Bill No. 1					
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Section 9: Refuse Yard & Pump House

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Bill No. 1

Earthworks (Provisional)

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 9</u></b></p>			
<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 9 Section 9: Refuse Yard &amp; Pump House Bill No. 2 Concrete, Formwork and Reinforcement <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	2
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**25 MPa Concrete in:**

2	Aprons	m3	4
---	--------	----	---

3	Thickening down the edge of apron 150mm deep ,200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	33
---	---	---	----

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

4	Ramps	m3	4
---	-------	----	---

5	Footings	m3	8
---	----------	----	---

6	Surface beds	m3	12
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**TEST BLOCKS**

7	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	15
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Section No. 9  
 Section 9: Refuse Yard & Pump House  
 Bill No. 2  
 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

<b><u>MOVEMENT JOINTS, ETC</u></b>			
<b><u>Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces</u></b>			
8	10mm Joints exceeding 300mm high	m2	43
<b><u>Saw cut joints</u></b>			
9	4 x 30mm Saw cuts in top of concrete	m	15
<b><u>CONCRETE SUNDRIES</u></b>			
<b><u>Finishing top surfaces of concrete smooth with a power float</u></b>			
10	Ramps, etc	m2	6
11	Aprons, etc	m2	32
<b><u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u></b>			
<b><u>Rough formwork to sides</u></b>			
12	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	9
<b><u>REINFORCEMENT</u></b>			
<b><u>Mild tensile steel reinforcement to structural concrete work</u></b>			
13	10mm Diameter bars	t	1.00
<b><u>High tensile steel reinforcement to structural concrete work</u></b>			
14	12mm Diameter bars	t	1.00
<b>Carried to Collection</b>			
Section No. 9 Section 9: Refuse Yard & Pump House Bill No. 2 Concrete, Formwork and Reinforcement			R
<b>REPAIRS &amp; RENOVATIONS</b>			

**Fabric reinforcement**

15	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	83
16	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	27

**Carried to Collection**

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Section No. 9  
 Section 9: Refuse Yard & Pump House  
 Bill No. 2  
 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

Section No. 9

Section 9: Refuse Yard & Pump House

Bill No. 2

Concrete, Formwork and Reinforcement

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Section 9: Refuse Yard & Pump House

Bill No. 2

Concrete, Formwork and Reinforcement

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 9</u></b></p>			
<p><b><u>BILL NO. 3</u></b></p>			
<p><b><u>MASONRY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>BRICKWORK</u></b></p>			
<p><b><u>Sizes in descriptions</u></b></p>			
<p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p>			
<p><b><u>Hollow walls etc</u></b></p>			
<p>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.</p>			
<p><b><u>Face bricks</u></b></p>			
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
<p><b><u>Pointing</u></b></p>			
<p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 9 Section 9: Refuse Yard &amp; Pump House Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

<b><u>Samples</u></b>				
<p>Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site</p>				
<b><u>FOUNDATIONS (PROVISIONAL)</u></b>				
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>				
1	One brick wall	m2	49	
<b><u>SUPERSTRUCTURE</u></b>				
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>				
2	Piers	m3	2	
3	One brick walls	m2	146	
<b><u>BRICKWORK SUNDRIES</u></b>				
<b><u>Brickwork reinforcement</u></b>				
4	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	595	
<b><u>Turning pieces</u></b>				
5	230mm Wide turning piece to lintels etc	m	2	
<b><u>Galvanised hoop iron cramps, ties, etc</u></b>				
6	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No	16	
<b>Carried to Collection</b>				
<p>Section No. 9                  Section 9: Refuse Yard &amp; Pump House                  Bill No. 3                  Masonry  <b>REPAIRS &amp; RENOVATIONS</b></p>				R

**FACE BRICKWORK**

**Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.**

7	Extra over brickwork for face brickwork	m2	85
8	Extra over brickwork for face brickwork in foundations	m2	18
9	Extra over brickwork for face brickwork in beamfilling	m2	5
10	One brick wall faced both sides	m2	53
11	Fair raking cutting	m	9
<b><u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u></b>			
12	Brick-on-edge header course lintel pointed on both faces and 230mm wide soffit	m	21
13	Cut face brick-on-edge external window cill, 180mm wide, set sloping and slightly projecting in cement mortar and pointed on top, front edge and projecting soffit including all necessary fair raking cutting to facings under and fair and fitted ends	m	2
14	Coping on raking top of one brick wall	m	17

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 Section 9: Refuse Yard & Pump House  
 Bill No. 3  
 Masonry  
**REPAIRS & RENOVATIONS**

Section No. 9

Section 9: Refuse Yard & Pump House

Bill No. 3

Masonry

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Section 9: Refuse Yard & Pump House

Bill No. 3

Masonry

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 9</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	9	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	83	
	<b>Carried to Collection</b>			
	Section No. 9 Section 9: Refuse Yard & Pump House Bill No. 4 Waterproofing <b>REPAIRS &amp; RENOVATIONS</b>			R

**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	21
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	34

**Carried to Collection**

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Section No. 9  
 Section 9: Refuse Yard & Pump House  
 Bill No. 4  
 Waterproofing  
**REPAIRS & RENOVATIONS**

Section No. 9

Section 9: Refuse Yard & Pump House

Bill No. 4

Waterproofing

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Section No. 9

Section 9: Refuse Yard & Pump House

Bill No. 4

Waterproofing

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 9</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b>Note:</b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber/steel purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	92	
	<b>Carried to Collection</b>			
	Section No. 9 Section 9: Refuse Yard & Pump House Bill No. 5 Roof Coverings, etc <b>REPAIRS &amp; RENOVATIONS</b>			R

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,60mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

2 Roof covering with pitch not exceeding 25 degrees m2 17

3 Ridge capping 562mm girth 3 times bent and notched to suit roof profile m 4

**0,60mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to steel purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

4 Roof covering with pitch not exceeding 25 degrees m2 75

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 Section 9: Refuse Yard & Pump House  
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 Roof Coverings, etc  
**REPAIRS & RENOVATIONS**

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Section 9: Refuse Yard & Pump House

Bill No. 5

Roof Coverings, etc

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Section 9: Refuse Yard & Pump House

Bill No. 5

Roof Coverings, etc

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 9</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 9 Section 9: Refuse Yard &amp; Pump House Bill No. 6 Carpentry and Joinery <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

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Carpentry and Joinery  
**REPAIRS & RENOVATIONS**

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Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum plasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc.

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e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1 Pump rooms approximately 15m<sup>2</sup> each measured flat

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Section 9: Refuse Yard & Pump House  
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Carpentry and Joinery  
**REPAIRS & RENOVATIONS**

**FASCIAS AND BARGE BOARDS**

**Nutec board or equal approved**

2	10 x 225mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends	m	56
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**Tempered fibre-cement internal window sills**

3	150 x 15mm thick internal window sill installed below window with sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in class II mortar with plastic slip joints at end at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations	m	2
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**REPAIRS & RENOVATIONS**

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Section 9: Refuse Yard & Pump House

Bill No. 6

Carpentry and Joinery

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Section 9: Refuse Yard & Pump House

Bill No. 6

Carpentry and Joinery

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 9</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 7</u></b>			
	<b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere			
	<b><u>INSULATION, ETC</u></b>			
	<b><u>Fibreglass insulation</u></b>			
1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions	m2	15	
	<b>Carried to Collection</b>			R
	Section No. 9 Section 9: Refuse Yard & Pump House Bill No. 7 Ceilings, Partitions and Access Flooring <b>REPAIRS &amp; RENOVATIONS</b>			

**NAILED UP CEILINGS**

**6.4mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster**

2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood bandering at 400mm centres in one direction and around edges where required for fixing cornices, bandering spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	15
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3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	1
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**Cornices**

4	76mm Gypsum coved trim cornice	m	16
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**Carried to Collection**

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 Section 9: Refuse Yard & Pump House  
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 Ceilings, Partitions and Access Flooring  
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Section 9: Refuse Yard & Pump House

Bill No. 7

Ceilings, Partitions and Access Flooring

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Section 9: Refuse Yard & Pump House

Bill No. 7

Ceilings, Partitions and Access Flooring

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 9</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 8</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>CATCHES, CABIN HOOKS, ETC</u></b>			
	<b><u>"Solid" or equal approved</u></b>			
1	"Code 630" 150mm padlock.	No	2	
2	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	6	
	<b><u>LOCKS</u></b>			
	<b><u>"Approved"</u></b>			
3	Mortice cylinder lockset for double doors comprising brass Protea handle on 165 x 50mm rectangular backplate with chrome finish, with euro lock case (Standard) with stainless steel forend, Euro profile double cylinder 85mm long, grand master keyed with rebate conversion set	No	2	
	<b><u>SUNDRIES</u></b>			
	<b><u>Solid or equal approved</u></b>			
4	Stainless steel floor door stop	No	6	
	<b>Carried to Collection</b>			R
	Section No. 9 Section 9: Refuse Yard & Pump House Bill No. 8 Ironmongery <b>REPAIRS &amp; RENOVATIONS</b>			

**NUMERAL AND NAME PLATES**

**Clear perspex name plate reverse engraved and enamelled in lettering 25mm high to suit, twice countersunk holed for and tap screwed to steel door frame with chromium plated dome-headed selftapping screws**

5	3mm Thick x 32mm wide plate with letters "REFUSE YARD"	No	1
6	3mm Thick x 32mm wide plate with letters "PUMP HOUSE"	No	1

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 Section 9: Refuse Yard & Pump House  
 Bill No. 8  
 Ironmongery  
**REPAIRS & RENOVATIONS**

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Section 9: Refuse Yard & Pump House

Bill No. 8

Ironmongery

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Section 9: Refuse Yard & Pump House

Bill No. 8

Ironmongery

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 9</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 9</u></b>			
	<b><u>STRUCTURAL STEELWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Descriptions of bolts shall be deemed to include nuts and washers			
	Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
	<b><u>STEEL COLUMNS AND BEAMS</u></b>			
	<b><u>Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to concrete plinth.</u></b>			
1	100 x 100mm x 5mm square hollow section columns	t	1.00	
	<b><u>Welded beams in single lengths with flat section base, top, bearer and connection plates bolted to concrete plinth.</u></b>			
2	150 x 100mm x 4mm RHS beams	t	1.00	
	<b>Carried to Collection</b>			R
	Section No. 9 Section 9: Refuse Yard & Pump House Bill No. 9 Structural Steelwork <b>REPAIRS &amp; RENOVATIONS</b>			

**STEEL PURLINS, GIRTS, BRACING, ETC**

**Purlins and girts bolted to steel**

3	150 x 75 x 20 x 2.5mm lipped channel purlins	t	1.00
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**Bolts, etc**

4	M16 x 80mm grade 8.8	No	20
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5	M25 x 700mm ragbolt including nut and washer cast in exact position in top of concrete	No	32
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 Section 9: Refuse Yard & Pump House  
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 Structural Steelwork  
**REPAIRS & RENOVATIONS**

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Section 9: Refuse Yard & Pump House

Bill No. 9

Structural Steelwork

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Bill No. 9

Structural Steelwork

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 9</u></b></p>			
<p><b><u>BILL NO. 10</u></b></p>			
<p><b><u>METALWORK</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Descriptions of bolts shall be deemed to include nuts and washers.</p>			
<p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 9 Section 9: Refuse Yard &amp; Pump House Bill No. 10 Metalwork <b>REPAIRS &amp; RENOVATIONS</b></p>			R

**STEEL GATES, SCREENS, ETC**

**The following in framed and welded mild steel security grille gates including fixing in position complete**

1	Double gate and frame size 1 830 x 2 350mm high, frame consisting of 50 x 50 x 2.5mm rectangular tubing sections metre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mm (M10) rawl bolts including gate consisting of 50 x 50 x 2.5mm square tubing sections metre 45 degrees at corners before welded with 2 horizontal sections with vertical styles out of 12 x 12mm mild steel solid square bars at equal centres of 100mm complete with 2 x pairs 20mm diameter bullet hinges per gate, 3 lever dead lock with forend and 147mm satin stainless steel foot operated telescopic door holder, etc (G01)	No	2
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**STEEL SPIKES**

**150mm high "Anti-climb over" hot dipped stainless steel or equal approved saw tooth spikes bedded on top of brick work in 1:3 cement mortar**

2	150mm high steel spikes bedded in cement mortar	m	20
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**PRESSED STEEL TRANSFORMER ROOM DOORS AND FRAMES**

**Approved doors**

3	Double door size 1 840 x 2 100mm high, each leaf with 420 x 568mm high louvred ventilation panel and rebated frame suitable for one brick wall	No	1
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**ALUMINIUM LOUVRE WINDOWS**

**Purpose made Wispeco or equal approved aluminium louvre fixed to brickwork**

4	Window size 1 500 x 1500mm high	No	1
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 Section 9: Refuse Yard & Pump House  
 Bill No. 10  
 Metalwork  
**REPAIRS & RENOVATIONS**

Section No. 9

Section 9: Refuse Yard & Pump House

Bill No. 10

Metalwork

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Section 9: Refuse Yard & Pump House

Bill No. 10

Metalwork

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 9</u></b>			
	<b><u>BILL NO. 11</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Plaster on concrete</u></b>			
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work			
	<b><u>GRANOLITHIC</u></b>			
	<b><u>Untinted granolithic on concrete (degree of accuracy grade III)</u></b>			
1	30mm Thick on floors and landings	m2	83	
2	Skirtings 75mm high	m	43	
	<b><u>INTERNAL PLASTER</u></b>			
	<b><u>Cement plaster on brickwork</u></b>			
3	On walls	m2	115	
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	Section No. 9 Section 9: Refuse Yard & Pump House Bill No. 11 Plastering <b>REPAIRS &amp; RENOVATIONS</b>			

**CORNER PROTECTORS, DIVIDING STRIPS,  
ETC.**

4	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	4
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**Carried to Collection**

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 Section 9: Refuse Yard & Pump House  
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 Plastering  
**REPAIRS & RENOVATIONS**

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Section 9: Refuse Yard & Pump House

Bill No. 11

Plastering

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Plastering

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 9</u></b></p>			
<p><b><u>BILL NO. 12</u></b></p>			
<p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>uPVC pipes and fittings:</u></b></p>			
<p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p>			
<p><b><u>Copper pipes:</u></b></p>			
<p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be approved by the Architect. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p>			
<p><b><u>Fixing of pipes</u></b></p>			
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 9 Section 9: Refuse Yard &amp; Pump House Bill No. 12 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

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**REPAIRS & RENOVATIONS**

R

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**User note:**

Please note the rate for butt welding is deemed to be included in all fittings

**RAINWATER DISPOSAL**

**GUTTERS, DOWNPIPES, ETC.**

**0.6mm galvanised and industrial profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc**

1	100 x 100mm section eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	16
2	Extra over 100 x 100mm thick eaves gutter for stopped end	No	4
3	100mm Diameter rainwater downpipe with brackets fixed to brick wall or concrete	m	24

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 Plumbing and Drainage (Provisional)

**REPAIRS & RENOVATIONS**

4	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	4	
5	Extra over 75mm rainwater pipe for bend	No	6	
6	Extra over 75 x 0.6mm rainwater pipe for shoe	No	6	
<b><u>SOIL DRAINAGE</u></b>				
7	Excavation not exceeding 1m deep for drain trenches	m3	12	
8	Excavation exceeding 1m and not exceeding 2m deep for drain trenches	m3	6	
9	Backfilling to drain trenches compacted to 93% Mod AASHTO density	m3	6	
10	Selected sand filling from the excavations in bedding under and filling around pipes	m3	6	
<b><u>Extra over bulk excavation in earth for excavation in</u></b>				
11	Soft rock	m3	2	
12	Hard rock	m3	1	
<b><u>HDPE pipe</u></b>				
<b><u>Supply mains pipe, bed, lay joint, bed and test sewer pipes with thermal welded joints:</u></b>				
13	110mm Pipes vertically or ramped to cleaning eyes, etc (no excavation)	m	12	
14	110mm Pipes laid in trenches (trenches elsewhere)	m	6	
<b><u>Extra over HDPE pipes for fittings</u></b>				
15	110mm Bend	No	2	
16	110mm Junction	No	2	
17	110mm Access bend	No	1	
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18	110mm Access junction	No	1		
	<b><u>HDPE gulleys</u></b>				
19	110mm Gulley not exceeding 750mm deep	No	1		
	<b><u>Manhole Chamber</u></b>				
20	Manhole chamber size 1500 x 1500 x 1500mm deep to invert having 150mm thick mesh (Ref 395) reinforced 25 Mpa concrete beam including cover and frame, internal plastered 230mm brick wall including excavations, cart away, sand backfilling, reinforcement, etc (cover elsewhere)	No	1		
21	400 x 600mm cast iron grating and frame to SANS 1115 (Saint Gobian:product code 2892 or equal approved)	No	1		
	<b><u>Sundries</u></b>				
22	Testing soil drainage system			Item	
	<b><u>TAPS, VALVES, ETC</u></b>				
	<b><u>Cobra Watertech or equal approved</u></b>				
23	15mm CP angle regulating valve	No	1		
24	22mm dia brass garden tape	No	1		
25	20mm Full way stop cock	No	1		
	<b><u>SANITARY PLUMBING</u></b>				
	<b><u>HDPE pipes</u></b>				
26	110mm Pipes in and including trenches	m	10		
	<b><u>Extra over HDPE pipes for fittings</u></b>				
27	110mm Bend	No	3		
	<b><u>Sundries</u></b>				
28	Testing water pipe system			Item	
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**WATER SUPPLIES**

**Class "O" copper pipes:**

29	22mm Pipes chased in brickwork	m	5
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**Extra over class "O" copper pipes for capillary fittings**

30	22mm Fittings	No	2
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**Copper flexible service pipes**

31	15mm Service pipe 340mm girth	No	1
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**SLEEVES**

**HDPE sleeves for pipes not exceeding 100mm diameter**

32	Sleeve not exceeding 250mm long	No	1
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 Plumbing and Drainage (Provisional)  
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Section 9: Refuse Yard & Pump House

Bill No. 12

Plumbing and Drainage (Provisional)

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Section 9: Refuse Yard & Pump House

Bill No. 12

Plumbing and Drainage (Provisional)

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 9</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 13</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>DESCRIPTIONS</u></b>			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	<b><u>PAINTWORK, ETC TO NEW WORK</u></b>			
	<b><u>ON FLOATED PLASTER</u></b>			
	<b><u>Prepare, stop and apply one coat masonry primer and two coats acrylic PVA paint</u></b>			
1	On internal plastered walls	m2	115	
	<b><u>ON FIBRE-CEMENT</u></b>			
	<b><u>Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use</u></b>			
2	On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	12	
	<b>Carried to Collection</b>			
	Section No. 9			
	Section 9: Refuse Yard & Pump House			
	Bill No. 13			
	Paintwork			
	<b>REPAIRS &amp; RENOVATIONS</b>			
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	<b><u>Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use</u></b>			
3	On external fibre-cement ceilings including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	15	
	<b><u>ON METAL</u></b>			
	<b><u>Prepare and apply two coats bitumen paint</u></b>			
4	On inside of 150 x 150mm galvanised sheet iron eaves gutter before fixing	m2	6	
	<b><u>Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint</u></b>			
5	On pressed steel door and frames	m2	10	
	<b><u>Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint</u></b>			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	16	
7	On structural steel	m2	88	
	<b><u>ON WOOD</u></b>			
	<b><u>Prepare, stop and apply one coat wood primer and two coats PVA paint</u></b>			
8	On doors	m2	7	
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Section 9: Refuse Yard & Pump House

Bill No. 13

Paintwork

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Paintwork

**REPAIRS & RENOVATIONS**

Section No. 9

Section 9: Refuse Yard & Pump House

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5	Roof Coverings, etc	413	
6	Carpentry and Joinery	419	
7	Ceilings, Partitions and Access Flooring	422	
8	Ironmongery	425	
9	Structural Steelwork	428	
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Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 10</u></b></p>			
<p><b><u>BILL NO. 1</u></b></p>			
<p><b><u>EARTHWORKS (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 10 Section 10: Guard House Bill No. 1 Earthworks (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	24
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**Extra over excavations in earth for excavation in:**

2	Soft rock	m3	2
3	Hard rock	m3	1

**Extra over all excavations for carting away**

4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	20
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**Risk of collapse of excavations**

5	Sides of trench and hole excavations not exceeding 1,5m deep	m2	87
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**Keeping excavations free of water**

6	Keeping excavations free of water		Item
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 Bill No. 1  
 Earthworks (Provisional)  
**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>					
7	Backfilling to trenches, holes, etc	m3	13		
<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 97% Mod AASHTO to density</u></b>					
8	Under floors, steps, pavings, etc	m3	4		
<b><u>Earth filling of G6 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>					
9	Under floors, steps, pavings, etc	m3	3		
<b><u>Coarse river sand filling supplied by the contractor</u></b>					
10	Under floors etc	m3	1		
<b><u>Compaction of surfaces</u></b>					
11	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	8		
<b><u>Prescribed density tests on filling</u></b>					
12	"Modified AASHTO Density" test	No	5		
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>					
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>					
13	Under floors, etc including forming and poisoning shallow furrows etc and filling in furrows and ramming	m2	8		
14	To bottoms and sides of trenches, etc	m2	85		
<b>Carried to Collection</b>					
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Section 10: Guard House

Bill No. 1

Earthworks (Provisional)

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Section 10: Guard House

Bill No. 1

Earthworks (Provisional)

**REPAIRS & RENOVATIONS**

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<p><b><u>SECTION NO. 10</u></b></p>			
<p><b><u>BILL NO. 2</u></b></p>			
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Cost of tests</u></b></p>			
<p>The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)</p>			
<p><b><u>Formwork</u></b></p>			
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 10 Section 10: Guard House Bill No. 2 Concrete, Formwork and Reinforcement <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15 MPa Concrete in:**

1	Blinding	m3	1
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**25 MPa Concrete in:**

2	Aprons	m3	1
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3	Thickening down the edge of apron 150mm deep ,200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	13
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**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

4	Ramps	m3	1
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5	Footings	m3	4
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6	Surface beds	m3	2
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**25MPa/19mm concrete**

7	Slabs	m3	1
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 Section 10: Guard House  
 Bill No. 2  
 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

**TEST BLOCKS**

8 Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)

No 5

**MOVEMENT JOINTS, ETC**

**Expansion joints with bitumen impregnated fibreboard between vertical concrete and brick surfaces**

9 10mm Joints exceeding 300mm high

m2 15

**Saw cut joints**

10 4 x 30mm Saw cuts in top of concrete

m 13

**CONCRETE SUNDRIES**

**Finishing top surfaces of concrete with wooden float finish**

11 Ramps, etc

m2 4

12 Aprons, etc

m2 13

**ROUGH FORMWORK (DEGREE OF ACCURACY II)**

**Rough formwork to soffits**

13 Slabs propped up exceeding 1.5 and not exceeding 3.5m high

m2 2

**Rough formwork to sides**

14 Isolated beams propped up exceeding 1.5m and not exceeding 3.5m high

m2 15

15 Edges, risers, ends and reveals not exceeding 300mm high or wide

m 17

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 Section 10: Guard House  
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 Concrete, Formwork and Reinforcement  
**REPAIRS & RENOVATIONS**

**REINFORCEMENT**

**Mild steel reinforcement to structural concrete work**

16	10mm Diameter bars	t	1.00
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**High tensile steel reinforcement to structural concrete work**

17	16mm Diameter bars	t	1.00
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**Fabric reinforcement**

18	Mesh reinforcement with mesh reference number 395 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2	8
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19	Mesh reinforcement with mesh reference number 395 laid in concrete footings, etc with 300mm wide side and end laps (measured net)	m2	16
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 Concrete, Formwork and Reinforcement  
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Section 10: Guard House

Bill No. 2

Concrete, Formwork and Reinforcement

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Section 10: Guard House

Bill No. 2

Concrete, Formwork and Reinforcement

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 10</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Face bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b><u>Pointing</u></b>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<b><u>FOUNDATIONS (PROVISIONAL)</u></b>			
	<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>			
1	Half brick walls	m2	3	
2	One brick walls	m2	20	
	<b>Carried to Collection</b>			R
	Section No. 10 Section 10: Guard House Bill No. 3 Masonry <b>REPAIRS &amp; RENOVATIONS</b>			

3	460mm thick brick walls	m2	8
<b><u>SUPERSTRUCTURE</u></b>			
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>			
4	Piers	m3	2
5	Half brick walls	m2	6
6	One brick walls	m2	46
7	460mm thick solid brick walls	m2	24
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Brickwork reinforcement</u></b>			
8	75mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	15
9	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	157
<b><u>Concrete prestressed fabricated lintels</u></b>			
10	115 x 75mm Lintels in lengths not exceeding 3m	m	1
<b><u>Turning pieces</u></b>			
11	230mm Wide turning piece to lintels etc	m	5
<b><u>Galvanised hoop iron cramps, ties, etc</u></b>			
12	38 x 1,6mm Galvanised hoop iron roof tie with one end built six courses deep into top of brickwork and other end wrapped around and nailed to trusses (Provisional)	No	13

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Section No. 10  
 Section 10: Guard House  
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**REPAIRS & RENOVATIONS**

**FACE BRICKWORK**

**Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.**

13	Extra over brickwork for face brickwork	m2	36
14	Extra over brickwork for face brickwork in foundation	m2	7
15	Half brickwall beam filling in facings in pointed both sides	m2	5
16	460mm thick brick wall faced both sides	m2	24
17	Fair raking cutting	m	4

**Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces**

18	Brick-on-edge header course lintel pointed on both faces and 230mm wide soffit	m	5
19	Cut face brick-on-edge external window cill, 180mm wide, set sloping and slightly projecting in cement mortar and pointed on top, front edge and projecting soffit including all necessary fair raking cutting to facings under and fair and fitted ends	m	5

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**REPAIRS & RENOVATIONS**

Section No. 10

Section 10: Guard House

Bill No. 3

Masonry

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Section 10: Guard House

Bill No. 3

Masonry

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 10</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer approved 375 micron embossed black polyethylene damp proof course</u></b>			
1	In walls	m2	3	
	<b><u>One layer of 250 micron HDPE lining waterproof sheeting with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements</u></b>			
2	Under surface beds	m2	8	
	<b>Carried to Collection</b>			
	Section No. 10 Section 10: Guard House Bill No. 4 Waterproofing <b>REPAIRS &amp; RENOVATIONS</b>			R

**JOINT SEALANTS, ETC**

**Two-part grey poly sulphide sealing compound applied with a caulking gun, including backing cord, bond breaker, primer, etc**

3	3 x 30mm In saw cut joints in floors	m	5
4	10 x 10mm In expansion joints in floors including raking out expansion joint filler as necessary	m	17

**Carried to Collection**

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 Section 10: Guard House  
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**REPAIRS & RENOVATIONS**

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Bill No. 4

Waterproofing

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Section 10: Guard House

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Waterproofing

**REPAIRS & RENOVATIONS**

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Item No	<b><u>SECTION NO. 10</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 5</u></b>			
	<b><u>ROOF COVERINGS, ETC</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b>Note:</b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>Aluminium foil based insulation</u></b>			
1	4mm FR (fire retardant grade) white polyethylene coated single sided aluminium foil insulation (code 2906), laid taut over timber/steel purlins complying with SANS 428, and fixed concurrently with roof covering including white PVC coated straining wires at 383mm centres, all in accordance with the manufacturer's recommendations	m2	10	
	<b>Carried to Collection</b>			
	Section No. 10 Section 10: Guard House Bill No. 5 Roof Coverings, etc <b>REPAIRS &amp; RENOVATIONS</b>			R

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,6mm Approved Klip-lock profile galvanised sheet steel coated outside and galvanised finish inside finish in single lengths fixed to timber purlins or rails and 0,60mm approved galvanised sheet steel accessories with silicon polyester finish on one side**

2	Roof covering with pitch not exceeding 25 degrees	m2	10
3	Ridge capping 562mm girth 3 times bent and notched to suit roof profile	m	4

**Carried to Collection**

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**REPAIRS & RENOVATIONS**

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Section 10: Guard House

Bill No. 5

Roof Coverings, etc

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Section 10: Guard House

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Roof Coverings, etc

**REPAIRS & RENOVATIONS**

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Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 10</u></b></p>			
<p><b><u>BILL NO. 6</u></b></p>			
<p><b><u>CARPENTRY AND JOINERY</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Treatment against insect pests</u></b></p>			
<p>Rates for all timber shall be deemed to include for treatment against insect pests</p>			
<p>All softwood for this job shall be treated to combat and prevent the spread of certain insect pests in accordance with Government Gazette Notice No R451 of 28 March 1969 and any amendments thereto. Proof of treatment shall be lodged with the Employer prior to the use of any timber in the works.</p>			
<p><b><u>Mitres, intersections, etc</u></b></p>			
<p>Descriptions of timber which is given linear, angles, rebates, grooves, chamfers, moulded edges, etc . are to be deemed to include for mitres, intersections, splay cut ends, stops, etc</p>			
<p>Descriptions of timber, etc shall be deemed to include for straight cutting and notching</p>			
<p><b><u>Fixing</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 10 Section 10: Guard House Bill No. 6 Carpentry and Joinery <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Items described as "plugged" shall be deemed to include for screwing to fibre, plastic or metal plugs at not exceeding 600mm centres or shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.

Descriptions are to be deemed to include for nails, screws, plugs, adhesives, holes, sin- kings, pelleting, etc

**Structural timber**

Descriptions of structural timber are to be deemed to include for joints in the length, holes, splay cut ends and mitres

All softwood structural timber shall be of stress grade V5 or M5 in accordance with SWABS specification 563 unless otherwise stated

**Fascias, etc.**

Descriptions of fibre cement fascias and barge boards shall be deemed to include for mitres, end junctions, screws, bolts, wall anchors, holes, etc.

**Door frames**

Rates for timber door frames shall be deemed to include for approved mild steel stay pegs in floors and hoop-iron clamps to walls, including holes, building in, etc

**Particle board:**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**Joinery:**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

**Carried to Collection**

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 Section 10: Guard House  
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 Carpentry and Joinery  
**REPAIRS & RENOVATIONS**

Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

**Decorative laminate finish:**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum plasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions.

b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut.

c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative/Agent

d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc.

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e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR.

f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc.

g. All timber must be Grade 7 as per table 3 of SABS 0163-2001

h. All timber screws bolts plate connection or any other type of connector to be in accordance with Annexure 'A' of SABS 0163-2001

i. All workshop drawings must be provided to the engineer for approval before fabrication

j. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect drawings and/or the site before design or fabrication commences

k. All timber to be treated in accordance with SABS 05

l. All exposed timber to be treated with carbolineum

m. All roof timber to be treated with fire retardant paint

**PREFABRICATED METAL CONNECTOR PLATE  
TIMBER ROOF TRUSSES**

**Complete prefabricated timber roof trusses with a pitch not exceeding 25 degree pitch including all necessary hoisting labour, timber for bracing, purlins, wall plates, beams, gang boards, certificate and guarantee for design and erection to be supplied by truss manufacturer. All exposed timber sections as well as sections in contact with wet trades to be creosote treated before fixing into position.**

1 Guard Houses approximately 8m<sup>2</sup> measured flat

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**REPAIRS & RENOVATIONS**

**FASCIAS AND BARGE BOARDS**

**Approved**

2	10 x 225mm thick Approved medium density nutec fascia/barge boards fixed to 38 x 38mm timber battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with aluminium H-profile fascia joiner between boards and aluminium H-profile fascia corner joiners at boards ends	m	15
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**DOORS**

**NOTE:**

All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dove tailed shape.

**Wrought hardwood framed and batten doors hung to GMS frame (elsewhere measured) of 108 x 40mm top rail and stiles, 144x 22mm middle ledge, 220 x 22mm bottom rail, filled with 76 x 22mm tongued and grooved V-jointed battens, with 50 x 50mm hardwood weather bar routed into bottom panel of door**

3	40mm Single door, size 813 x 2125mm high	No	1
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**Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames**

4	40mm Door 813 x 2032mm high	No	1
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**REPAIRS & RENOVATIONS**

**Tempered fibre-cement internal window sills**

5 150 x 15mm thick internal window sill installed below window with sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in class II mortar with plastic slip joints at end at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations

m

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Carpentry and Joinery

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Carpentry and Joinery

**REPAIRS & RENOVATIONS**

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<p><b><u>SECTION NO. 10</u></b></p>			
<p><b><u>BILL NO. 7</u></b></p>			
<p><b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Descriptions</u></b></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p>			
<p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 10                  Section 10: Guard House                  Bill No. 7                  Ceilings, Partitions and Access Flooring  <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**INSULATION, ETC**

**Fibreglass insulation**

1	100mm Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of brandering, etc, all as per manufacturers instructions	m2	8
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**NAILED UP CEILINGS**

**6.4mm Gypsum Plasterboard ceilings finished smooth with gypsum skim plaster**

2	Horizontal ceiling formed of 6.4mm thick x 1200mm wide boards with and including H-type pressed steel jointing strips over joints, 38 x 50mm sawn softwood brandering at 400mm centres in one direction and around edges where required for fixing cornices, brandering spiked to roof timber, and finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer	m2	8
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3	Extra over ceiling for hinged pressed metal trap door size 600 x 600mm including all necessary ironmongery	No	1
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**Cornices**

4	76mm Gypsum coved trim cornice	m	17
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Ceilings, Partitions and Access Flooring

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Ceilings, Partitions and Access Flooring

**REPAIRS & RENOVATIONS**

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	<b><u>BILL NO. 9</u></b>			
	<b><u>METALWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Descriptions of bolts shall be deemed to include nuts and washers.			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.			
	<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
	<b><u>Double rebated pressed frames suitable for half brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf</u></b>			
1	Frame for door size, 813 x 2032mm high	No	1	
	<b><u>Double rebated pressed frames suitable for one brick walls with two Union 8432-100SB ball bearing butt hinges with satin brass finish per leaf</u></b>			
2	Frame for door size, 813 x 20325mm high	No	1	
	<b>Carried to Collection</b>			R
	Section No. 10 Section 10: Guard House Bill No. 9 Metalwork <b>REPAIRS &amp; RENOVATIONS</b>			

**MILD STEEL BURGLAR BARS**

**50 x 8mm steel flat bars fixed to brick walls detail as per Architectural drawings attached to these bills of quantities**

3	Window size 590 x 1 650mm high	No	1
4	Window size 650 x 950mm high	No	2
5	Window size 2220 x 1 650mm high	No	1

**ALUMINIUM WINDOWS**

**Standard aluminium windows**

6	Window size 590 x 1 650mm high	No	1
7	Window size 650 x 950mm high	No	2
8	Window size 2220 x 1 650mm high	No	1

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Metalwork

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Section 10: Guard House

Bill No. 9

Metalwork

**REPAIRS & RENOVATIONS**

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	<b><u>SECTION NO. 10</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Plaster on concrete</u></b>			
	Plaster described as "on brickwork" shall be deemed to include for small portions of plaster on concrete flush with brickwork and prices should include for all the necessary preparatory work			
	<b><u>SCREEDS</u></b>			
	<b><u>1:3 Screeds wood trowelled on concrete</u></b>			
1	30mm Thick on floors and landings	m2	8	
	<b><u>INTERNAL PLASTER</u></b>			
	<b><u>Cement plaster on brickwork</u></b>			
2	On walls	m2	48	
3	On narrow widths	m2	1	
	<b><u>CORNER PROTECTORS, DIVIDING STRIPS, ETC.</u></b>			
4	40mm High brass or aluminium transition strip built into screed between different floor finishes	m	1	
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	Plastering			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 10</u></b>			
	<b><u>BILL NO. 11</u></b>			
	<b><u>TILING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>WALL TILING</u></b>			
	<b><u>Ceramic wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
1	On walls	m2	1	
2	On walls in isolated panels, splash backs,etc	m2	1	
	<b><u>FLOOR TILING</u></b>			
	<b><u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
3	On floors and landings	m2	8	
4	Skirting 120mm high	m	17	
	<b><u>EDGE TRIMS, ETC</u></b>			
5	Aluminium square edge trim	m	1	
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	Tiling			
	<b>REPAIRS &amp; RENOVATIONS</b>			

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 10</u></b></p>			
<p><b><u>BILL NO. 12</u></b></p>			
<p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>uPVC pipes and fittings:</u></b></p>			
<p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p>			
<p><b><u>Copper pipes:</u></b></p>			
<p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be approved by the Architect. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p>			
<p><b><u>Fixing of pipes</u></b></p>			
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 10 Section 10: Guard House Bill No. 12 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

**Carried to Collection**

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**REPAIRS & RENOVATIONS**

R

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**User note:**

Please note the rate for butt welding is deemed to be included in all fittings

**RAINWATER DISPOSAL**

**GUTTERS, DOWNPIPES, ETC.**

**0.6mm galvanised and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc**

1	100 x 100mm eaves gutter with 20mm wide overlapping joints sealed with and including compressible sealing strip and riveted at 20mm centres	m	8
2	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	4
3	Extra over 100x 100mm eaves gutter for stopped end	No	4

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**REPAIRS & RENOVATIONS**

4	100mm diameter rainwater downpipe with brackets fixed to brick wall or concrete	m	16	
5	Extra over 75mm dia. rainwater pipe for bend	No	4	
6	Extra over 75mm rainwater pipe for shoe	No	4	
<b><u>SOIL DRAINAGE</u></b>				
7	Excavation not exceeding 1m deep for drain trenches	m3	4	
8	Excavation exceeding 1m and not exceeding 2m deep for drain trenches	m3	2	
9	Backfilling to drain trenches compacted to 93% Mod AASHTO density	m3	4	
10	Selected sand filling from the excavations in bedding under and filling around pipes	m3	2	
<b><u>Extra over bulk excavation in earth for excavation in</u></b>				
11	Soft rock	m3	2	
12	Hard rock	m3	1	
<b><u>HDPE pipe</u></b>				
<b><u>Supply mains pipe, bed, lay joint, bed and test sewer pipes with thermal welded joints:</u></b>				
13	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	10	
14	110mm Pipes laid in trenches (trenches elsewhere)	m	10	
<b><u>Extra over HDPE pipes for fittings</u></b>				
15	110mm Bend	No	2	
16	110mm Junction	No	2	
17	110mm Access bend	No	1	
18	110mm Access junction	No	1	
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<b><u>HDPE gulleys</u></b>			
19	110mm Gulley not exceeding 750mm deep	No	1
<b><u>Sundries</u></b>			
20	Testing soil drainage system		Item
<b><u>SANITARY FITTINGS</u></b>			
<b><u>"Vaal" or equal approved</u></b>			
21	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	1
22	White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" heavy duty toilet seat	No	1
<b><u>WASTE UNIONS, ETC</u></b>			
23	32mm Basin waste union	No	1
<b><u>Cobra Watertech or equal approved</u></b>			
24	40mm Deep seal "P" or "S" trap	No	1
25	15mm CP angle regulating valve	No	2
26	15 x 350mm CP flexible connector	No	1
27	15mm Cobra or equal approved star basin tap	No	1
28	20mm Full way stop cock	No	1
<b><u>SANITARY PLUMBING</u></b>			
<b><u>HDPE pipes</u></b>			
29	50mm Pipes	m	2
30	50mm Pipes chased into brick walls	m	3
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31	110mm Pipes	m	2		
	<b><u>Extra over HDPE pipes for fittings</u></b>				
32	50mm Bend	No	2		
33	50mm Access bend	No	2		
34	50mm Junction	No	2		
35	50mm Access junction	No	1		
36	110mm Bend	No	1		
37	110mm Access bend	No	1		
38	110mm Socket	No	1		
39	110mm Junction	No	1		
40	110mm Reducing junction	No	1		
41	110mm Access junction	No	1		
42	110mm Two-way vent valve	No	1		
43	110mm Pan connector	No	1		
	<b><u>Sundries</u></b>				
44	Testing water pipe system			Item	
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class "O" copper pipes:</u></b>				
45	15mm Pipes chased in brickwork	m	4		
46	22mm Pipes chased in brickwork	m	5		
47	28mm Pipes	m	2		
	<b>Carried to Collection</b>				
	Section No. 10 Section 10: Guard House Bill No. 12 Plumbing and Drainage (Provisional)				
	<b>REPAIRS &amp; RENOVATIONS</b>				
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<b><u>Extra over class "O" copper pipes for capillary fittings</u></b>			
48	15mm Fittings	No	3
49	22mm Fittings	No	3
50	28mm Fittings	No	2
<b><u>Copper flexible service pipes</u></b>			
51	15mm Service pipe 340mm girth	No	1
<b><u>SLEEVES</u></b>			
<b><u>HDPE sleeves for pipes not exceeding 100mm diameter</u></b>			
52	Sleeve not exceeding 250mm long	No	1
<b><u>HDPE sleeves for pipes exceeding 100mm and not exceeding 200mm diameter</u></b>			
53	Sleeve not exceeding 250mm long	No	1
<b>Carried to Collection</b>			
Section No. 10 Section 10: Guard House Bill No. 12 Plumbing and Drainage (Provisional) <b>REPAIRS &amp; RENOVATIONS</b>			R

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Plumbing and Drainage (Provisional)

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 10</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 13</u></b>			
	<b><u>GLAZING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>MIRRORS</u></b>			
	<b><u>Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with foam backing strip all round to plugs in walls</u></b>			
1	6mm "GG" or equal approved quality polished glass mirror 600 x 450mm high with polished edges fixed to wall with four 35mm round nose chromium plated mirror screws	No	1	
	<b>Carried Forward to Summary of Section No. 10</b>			R
	Section No. 10 Section 10: Guard House Bill No. 13 Glazing <b>REPAIRS &amp; RENOVATIONS</b>			

Item No	<b><u>SECTION NO. 10</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 14</u></b>			
	<b><u>PAINTWORK</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>PAINTWORK, ETC TO NEW WORK</u></b>			
	<b><u>ON FLOATED PLASTER</u></b>			
	<b><u>Prepare, stop and apply one coat masonry primer and two coats acrylic PVA paint</u></b>			
1	On internal plastered walls	m2	48	
	<b><u>ON FIBRE-CEMENT</u></b>			
	<b><u>Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use</u></b>			
2	On external fibre-cement fascias and barge boards including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	4	
	<b><u>Prepare, stop and apply one coat alkali resistant primer and two full coats acrylic emulsion paint for exterior use</u></b>			
3	On external fibre-cement ceilings including priming metal cover strips and screw heads with one coat zinc phosphate alkyd resin primer	m2	8	
	<b>Carried to Collection</b>			
	Section No. 10 Section 10: Guard House Bill No. 14 Paintwork <b>REPAIRS &amp; RENOVATIONS</b>			R

**ON METAL**

**Prepare and apply two coats bitumen paint**

4	On inside of 100 x 100mm galvanised sheet iron eaves gutter before fixing	m2	5
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**Prepare, touch up factory primer and apply one coat duraphos, one coat universal undercoat and two coats gloss enamel paint**

5	On pressed steel door and door frames	m2	3
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**Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint**

6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	12
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**ON WOOD**

**Prepare and apply three coats varnish**

7	On timber doors	m2	4
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**Prepare, stop and apply one coat wood primer and two coats PVA paint**

8	On doors	m2	4
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 Section 10: Guard House  
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**REPAIRS & RENOVATIONS**

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Section 10: Guard House

Bill No. 14

Paintwork

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Bill No. 14

Paintwork

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Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO.11</u></b></p>			
<p><b><u>BILL NO.1</u></b></p>			
<p><b><u>JOINERY FITTINGS</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Fitting General:</u></b></p>			
<p>Where fittings have been measured as complete units i.e. the components of the units have not been separately measured, the descriptions of such units shall be deemed to include all components, assembling, housing, notching, glueing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic finish, glass, ironmongery, metalwork, paint or varnish finishes, etc</p>			
<p>Unless specifically stated, or where no finish is given, finishes to all joinery fittings shall be three coats polyurethane clear semi-gloss varnish to all exposed surfaces</p>			
<p>The reference given in the descriptions are to the respective types of fittings detailed on the architect's drawings as indicated and included at the end of these BoQs. The tenderers are to familiarise themselves with the details on the drawings when pricing</p>			
<p><b><u>Joinery:</u></b></p>			
<p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p>			
<p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 11 Section 11: Joinery Fittings Bill No. 1 Joinery Fittings <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

**Drawings**

The references given in the descriptions are to the respective fittings detailed on the drawings accompanying these bills of quantities for tender purposes

**PARTICLE BOARD**

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

**DECORATIVE LAMINATE FINISH**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

**CONSTRUCTION**

Construction of fittings shall be generally of wood, screwed and glued with pelleted heads where visible. All materials used must be of the best quality fabricate approved by the Representative / Agent and all the units to be finished neat and true prior to installation and finishing

**DOORS TO FITTINGS**

Sizes of doors and drawers are approximate. Correct sizes must be taken from the fittings concerned

**Carried to Collection**

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 Section 11: Joinery Fittings  
 Bill No. 1  
 Joinery Fittings  
**REPAIRS & RENOVATIONS**

**THE FOLLOWING IN 1 X 2 CLASSROOM BLOCK AND 2 X 3 CLASSROOM BLOCK**

**Furniture**

**Teacher's classroom desk with one drawer both sides**

1	1611 x 910 x 750mm high table top (21mm thick solid hardwood), drawers manufactured from matching 16mm thick substrate veneer board, all edges sealed with matching veneer. 21mm solid Saligna Hardwood drawer fronts, both drawers lockable with an approved lock and handle. Provide knock-down "risma" fitting. All timber components to be varnished with two coats of acid catalyzed lacquer. Desk to comply with SABS 1528-2:1998	No	8	
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**Upholstered chair without arms**

2	Approved seat and back foam (seat foam minimum 23kg/m <sup>3</sup> ), (back foam minimum 16kg/m <sup>3</sup> ) and upholstery (100%polypropolene - contract quality), all foam to be glued onto 16mm particle board. Stackable steel frame assembly to be 22,23x1,2mm square tubing with baked black epoxy/polyester powder coating finish. Seat fitted to steel frame with approved screws and back fitted to steel frame with bolts and T nuts. Chairs to comply with SANS/SABS 1244: 1979.	No	8	
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**Double combination desk**

3	Desk to be made of: 21mm thick solid saligna hardwood (top = 1200 x 400mm, front beneath top =1200 x 250mm, seat = 1200 x 225mm). All timber components to be varnished with two coats of acid catalysed lacquer and be safely left to dry up before fixed to steel frame. Main steel frame to be Ø31,7x0,6mm thick tubing, seat support steel rail to be Ø15,88x1,2mm thick tubing. All tubing to be completed with steel frame baked light grey epoxy/polyester powder coating finish. durable plugs to be fitted to all openings of steel frame. Fit all timber components to steel frame with the approved M5/M5 bolts and mylock nuts.NOTE: All desks to comply with SANS 880: 2004.	No	160	
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**THE FOLLOWING IN GRADE R CLASSROOM BLOCK**

**Purpose made**

4	Sink cupboard size 1200 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	1	
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 Joinery Fittings  
**REPAIRS & RENOVATIONS**

5	Sink cupboard size 1500 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	1		
6	Built in Cupboard (free standing) size 3 650 x 500 x 2200mm high with top, sides, bottom, division, shelves, doors, etc	No	1		
7	Grade R - 7 000 x 500 x 900mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish, etc as per Architect	No	1		
8	1700 x 500 x 882mm high bench complete and including 25mm thick Saligna seat, filler pieces, angle irons, expansion bolts, steel frame, paint etc.	No	1		
	<b><u>Wrought laminated saligna and finished as follows:</u></b> <b><u>One coat 10% diluted and 2 coats undiluted polyurethane acid resistant varnish</u></b>				
9	32mm thick top	m2	2		
10	Extra over for cutting an opening in 32mm worktop to suit 1200 x 535mm drop in type stainless steel sink (elsewhere)	No	2		
	<b><u>Aluminium skirting</u></b>				
11	100mm natural anodised aluminium skirting plugged	m	8		
	<b><u>Furniture</u></b>				
	<b><u>Teacher's classroom desk with one drawer both sides</u></b>				
12	1611 x 910 x 750mm high table top (21mm thick solid hardwood), drawers manufactured from matching 16mm thick substrate veneer board, all edges sealed with matching veneer. 21mm solid Saligna Hardwood drawer fronts, both drawers lockable with an approved lock and handle. Provide knock-down 'risma' fitting. All timber components to be varnished with two coats of acid catalyzed lacquer. Desk to comply with SABS 1528-2:1998	No	1		
	<b>Carried to Collection</b>				
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<b><u>Upholstered chair without arms</u></b>				
13	Approved seat and back foam (seat foam minimum 23kg/m³), (back foam minimum 16kg/m³) and upholstery (100%polypropolene - contract quality), all foam to be glued onto 16mm particle board. Stackable steel frame assembly to be 22,23x1,2mm square tubing with baked black epoxy/polyester powder coating finish. Seat fitted to steel frame with approved screws and back fitted to steel frame with bolts and T nuts. Chairs to comply with SANS/SABS 1244: 1979.	No	1	
<b><u>Grade R Polypropylene Chair</u></b>				
14	Grade R Polypropylene Chair with metals legs, Blue, 325mm H	No	8	
15	Grade R Polypropylene Chair with metals legs, Orange, 325mm H	No	8	
16	Grade R Polypropylene Chair with metals legs, Red 325mm H	No	39	
<b><u>Grade R 8 Seater white coating Supawood Table</u></b>				
17	Grade R 8 Seater white coating Supawood Table. Table height to be 500mm.	No	4	
<b><u>External Furniture</u></b>				
18	Playground climbing stairs with wings	No	2	
19	Slides	No	4	
20	Playground system	No	2	
<b><u>THE FOLLOWING IN MEDIA CENTRE BLOCK</u></b>				
<b><u>Purpose made</u></b>				
21	2700 x 750 x 850mm high worktop complete and including 32mm formica worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, doors, ironmongery, varnish, etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
<b>Carried to Collection</b>				
Section No. 11 Section 11: Joinery Fittings Bill No. 1 Joinery Fittings <b>REPAIRS &amp; RENOVATIONS</b>				R

22	3 300 x 750 x 850mm high worktop complete and including 132mm formica worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, doors, ironmongery, varnish, etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
23	4 300 x 750 x 850mm high worktop complete and including 32mm formica worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, doors, ironmongery, varnish, etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
24	13 000 x 750 x 850mm high worktop complete and including 32mm formica worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, doors, ironmongery, varnish etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
25	7 500mm long x 500mm wide x 1 545mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, steel frame, dividers, brackets, varnish etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
26	Store shelving - 2 000mm long x 500mm wide x 1 685mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
27	Store shelving - 3 000mm long x 500mm wide x 1 685mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
28	Island shelving (free standing) 2 500mm long x 660mm wide x 2 200mm High free standing shelves complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
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29	Island shelving (free standing) 5 000mm long x 660mm wide x 2 200mm High free standing shelves complete with and including rail, back uprights, filler piece,frame, dividers, brackets, varnish etc as per Architect drawing PJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	2
30	Bag rack 2 000mm long x 500mm wide x 1 000mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece,frame, dividers, brackets, varnish etc as per Architect drawing PJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	1
31	Newspaper magazine 6 000mm long x 500mm wide x 1 000mm High along perimeter of wall complete with and including rail, back uprights, filler piece,frame, dividers, brackets, varnish etc as per Architect drawing PJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	1
32	L-shaped service counter size 2 500 x 750 x 1200mm high and 1500 x 750 x 1200mm high complete with and including 32mm melamine worktop, drawers, shelves, divisions, sides, brackets, fixings, etc as per Architect drawing PJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	1
	<b><u>PG Bison 32mm thick Formica Lifeseal Worktop in Bodensee Cherry Loglare or equal approved with Squareline profile on 1 long edge, consisting of a formica high pressure laminate bonded to a moisture resistant Bisonboard Particleboard substrate with laminated on one side backer, manufactured in accordance with SANS ISO 4586:1995 constructed with the architectural drawings attached to these bills of quantities</u></b>		
33	32mm thick top	m2	22
	<b><u>Aluminium skirting</u></b>		
34	100mm natural anodised aluminium skirting plugged	m	52

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Section No. 11  
 Section 11: Joinery Fittings  
 Bill No. 1  
 Joinery Fittings  
**REPAIRS & RENOVATIONS**

<b><u>Furniture</u></b>				
<b><u>Lower Back Typist Chair with 5 Star Base</u></b>				
35	Approved seat and back foam (Seat 45mm thick minimum 23kg/m <sup>3</sup> ), (Back 25mm thick minimum 16kg/m <sup>3</sup> ) and upholstery (100% polypropylene - contract quality), foam to be glued onto ± 11mm shaped plywood seat and back. Seat and back fitted with bolts & t-nuts to steel frame. Chair to be gas height adjustable spindle. 5 star reinforced nylon base with durable castors, chair to comply with SANS/SABS 1244;1979.	No	13	
<b><u>Stackable Student Chair (Grade 7-12)</u></b>				
36	Seat injection moulded polypropylene copolymer (Ref. 2.1.8) Orange. Steel frame Ø19x1.6mm baked light grey polyester/epoxy powder coating (Ref. 2.1.18/19). Adjustable by means of a spindle fitted into a tapered bush, Nylon plugs to all leg ends (Ref. 2.1.20). Seat fasten with tampered proof screws to seat frame.	No	24	
<b><u>8 Seater Supawood Cradle Stand Table</u></b>				
37	Alpine or similar approved S8CR (750 x750mm), 16mm thick varnished Supawood (MDF) Top. 50mm Steel sections cradle stand with baked light grey polyester/epoxy powder coating finish. Table height to be 750mm.	No	6	
<b><u>THE FOLLOWING IN NUTRITIONAL CENTRE BLOCK</u></b>				
<b><u>Purpose made</u></b>				
38	Vanity cupboard size 1 000 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (basin elsewhere)	No	2	
39	Wall cupboard size 1 500 x 400 x 600mm high with top, sides, bottom, divisions, shelf, back and single hinged door plugged etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1	
40	Floor cupboard unit size 1 500 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	1	
41	Sink cupboard unit size 1 800 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	3	
<b>Carried to Collection</b>				
				R
Section No. 11 Section 11: Joinery Fittings Bill No. 1 Joinery Fittings <b>REPAIRS &amp; RENOVATIONS</b>				

42	Floor cupboard unit size 3 000 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	2		
43	1 000 x 750 x 850mm high floor cupboard complete and including 32mm melamine worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, door, ironmongery, varnish, etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	2		
44	1 500 x 500 x 882mm high bench complete and including 25mm thick Saligna seat, filler pieces, angle irons, expansion bolts, steel frame, paint etc.	No	2		
45	Store shelving - 4 500mm long x 500mm wide x 2 200mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish, etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	2		
46	Store shelving - 23 000mm long x 500mm wide x 2 200mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish, etc as per Architect drawing PJN_ZA_2020_2003 _DBSA_GPS_ARC M2004_R00	No	1		
<b><u>Wrought laminated saligna and finished as follows:</u></b>					
<b><u>One coat 10% diluted and 2 coats undiluted polyurethane acid resistant varnish</u></b>					
47	32mm thick top	m2	12		
48	Extra over for cutting an opening in 32mm worktop to suit 1200 x 535mm drop in type stainless steel sink (elsewhere)	No	2		
49	Extra over for cutting an opening in 32mm worktop to suit 450 x 500mm drop in basin (elsewhere)	No	2		
<b><u>Aluminium skirting</u></b>					
50	100mm natural anodised aluminium skirting plugged	m	38		
<b><u>Furniture</u></b>					
<b>Carried to Collection</b>					
Section No. 11					
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				R	

**7 Seater Supawood Cradle Stand Table**

51	Alpine or similar approved S8CR (3 460 x 750mm), 16mm thick varnished Supawood (MDF) Top. 50mm Steel sections cradle stand with baked light grey polyester/epoxy powder coating finish. Table height to be 750mm.	No	1
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**14 Seater Supawood Cradle Stand Table**

52	Alpine or similar approved S8CR (4 020 x 750mm), 16mm thick varnished Supawood (MDF) Top. 50mm Steel sections cradle stand with baked light grey polyester/epoxy powder coating finish. Table height to be 750mm.	No	7
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**Stackable Student Chair (Grade 7-12)**

53	Seat injection moulded polypropylene copolymer (Ref. 2.1.8) Orange. Steel frame Ø19x1.6mm baked light grey polyester/epoxy powder coating (Ref. 2.1.18/19). Adjustable by means of a spindle fitted into a tapered bush, Nylon plugs to all leg ends (Ref. 2.1.20). Seat fasten with tampered proof screws to seat frame.	No	105
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**THE FOLLOWING IN SCIENCE LABORATORY BLOCK**

**Purpose made**

54	3 000 x 820 x 900mm high worktop complete and including 32mm laminated saligna worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, drawers, doors, ironmongery, varnish, etc as per Architect drawing PJJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	9
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55	5 000 x 820 x 900mm high worktop complete and including 32mm laminated saligna worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, doors, ironmongery, varnish, etc as per Architect drawing PJJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	1
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56	Store shelving - 10 000mm long x 500mm wide x 2 200mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish, etc as per Architect drawing PJJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	1
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**Carried to Collection**

R

Section No. 11  
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 Joinery Fittings  
**REPAIRS & RENOVATIONS**

<b><u>Wrought laminated saligna and finished as follows:</u></b>			
<b><u>One coat 10% diluted and 2 coats undiluted polyurethane acid resistant varnish</u></b>			
57	32mm thick top	m2	28
58	Extra over for cutting an opening in 32mm worktop to suit 480 x 345mm drop in basin (elsewhere)	No	9
<b><u>Aluminium skirting</u></b>			
59	100mm natural anodised aluminium skirting plugged	m	48
<b><u>Furniture</u></b>			
<b><u>Lab Chair</u></b>			
60	380 x 690mm high chair lab grade with Ø300mm polypropylene copolymer injection moulded seat to be fitted by means of pop rivets (Ref. 2.1.8). Steel frame to be Ø25.05x1.6mm thick steel tubing with baked polyester/epoxy light grey powder coating finish (Ref. 2.1.18/19) fixed with Ø10mm steel rods. All legs ends to have nylon plugs (Ref.2.1.20).	No	25
<b><u>Wheel chair</u></b>			
61	Folded wheelchair size 107mm long x 91mm high with seat size 64mm width and 50mm high including wheels and foot rest as per manufacturer's specifications.	No	1
<b><u>Two door steel stationery cupboard with four adjustable shelves.</u></b>			
62	1800 x 900 x 450mm double door lockable stationery steel cupboard with 4 steel shelves fixed to wall with 60mm M8 coach screws, 60mm wall plugs to be provided. Insert screws with steel M8x25mm washers to drilled holes at the back of steel cupboard. Screw steel cupboard to wall plug fitted to wall drilled holes. Colour: Hammertone Grey.	No	1
<b><u>THE FOLLOWING IN ADMINISTRATION BLOCK</u></b>			
<b><u>Purpose made</u></b>			
63	Sink cupboard unit size 1 500 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	1
<b>Carried to Collection</b>			
Section No. 11 Section 11: Joinery Fittings Bill No. 1 Joinery Fittings <b>REPAIRS &amp; RENOVATIONS</b>			R

64	3 000 x 500 x 882mm high bench complete and including 25mm thick Saligna seat, filler pieces, angle irons, expansion bolts, steel frame, paint etc.	No	1
65	6 000 x 820 x 900mm high worktop complete and including 32mm laminated saligna worktop, divisions, sides, brackets, fixings, rail, back uprights, filler piece, steel frame, dividers, brackets, doors, ironmongery, varnish, etc as per Architect drawing PJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	1
66	Floor cupboard unit size 3 000 x 500 x 900mm high with and including 32mm thick laminated saligna top, sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	1
67	Store shelving - 14 000mm long x 500mm wide x 2 200mm High shelving along perimeter of wall complete with and including rail, back uprights, filler piece, frame, dividers, brackets, varnish, etc as per Architect drawing PJN_ZA_2020_2003_DBSA_GPS_ARC M2004_R00	No	1
<b><u>Wrought laminated saligna and finished as follows:</u></b>			
<b><u>One coat 10% diluted and 2 coats undiluted polyurethane acid resistant varnish</u></b>			
68	32mm thick top	m2	11
69	Extra over for cutting an opening in 32mm worktop to suit 1200 x 535mm drop in type stainless steel sink (elsewhere)	No	1
<b><u>Aluminium skirting</u></b>			
70	100mm natural anodised aluminium skirting plugged	m	13

**Furniture**

**Carried to Collection**

R

Section No. 11  
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 Joinery Fittings  
**REPAIRS & RENOVATIONS**

<b><u>Desk with 2 drawers</u></b>				
71	1200 x 700 x 750mm high table top (21mm thick solid hardwood) fitted with approved screws to steel frame. Modesty panel and drawer box carcass manufactured from matching 16mm substrate veneer board with all edges sealed with matching veneer. Frame to be 32x1.6mm thick square tubing with baked black epoxy/polyester powder coating finish, durable plugs fitted to all leg ends. Drawer fronts to be 21mm solid Saligna Hardwood, top drawer to be lockable with the approved locks. Provide approved drawer handles and drawer slides. Provide knock-down 'prisma' fitting. Modesty panel to be secured to steel frame with 4.8x27mm large flange pop reverts. All timber components to be varnished with two coats of acid catalyzed lacquer. Desk to comply with SABS 1528-2:1918 (EDITION 1.1)	No	3	
<b><u>Upholstered Side Chair With Arms</u></b>				
72	Approved seat and back foam (Seat foam minimum 23kg/m <sup>3</sup> ) (Back foam minimum 16kg/m <sup>3</sup> ) and upholstery (100% polypropylene - contract quality), foam to be glued onto 16mm particle board. Stackable steel frame assembly to be 22,23x1,2mm square tubing with baked black epoxy/polyester powder coating finish, durable plugs fitted to all open steel ends Seat fitted to steel frame with approved screws and back fixed to steel frame with bolts and T nuts. Approved arm rests to be fitted to steel frame. Chairs to comply with SANS/SABS 1244: 1979.	No	24	
<b><u>Lower Back Typist Chair with 5 Star Base</u></b>				
73	Approved seat and back foam (Seat 45mm thick minimum 23kg/m <sup>3</sup> ), (Back 25mm thick minimum 16kg/m <sup>3</sup> ) and upholstery (100% polypropylene - contract quality), foam to be glued onto ± 11mm shaped plywood seat and back. Seat and back fitted with bolts & t-nuts to steel frame. Chair to be gas height adjustable spindle. 5 star reinforced nylon base with durable castors, chair to comply with SANS/SABS 1244;1979.	No	3	
<b><u>Upholstered chair without arms</u></b>				
74	Approved seat and back foam (seat foam minimum 23kg/m <sup>3</sup> ), (back foam minimum 16kg/m <sup>3</sup> ) and upholstery (100% polypropylene - contract quality), all foam to be glued onto 16mm particle board. Stackable steel frame assembly to be 22,23x1,2mm square tubing with baked black epoxy/polyester powder coating finish. Seat fitted to steel frame with approved screws and back fitted to steel frame with bolts and T nuts. Chairs to comply with SANS/SABS 1244: 1979.	No	9	
<b>Carried to Collection</b>				R
Section No. 11 Section 11: Joinery Fittings Bill No. 1 Joinery Fittings <b>REPAIRS &amp; RENOVATIONS</b>				

**Desk with 2 drawers**

75 1200 x 600 x 750mm high table top (21mm thick solid hardwood) fitted with approved screws to steel frame. Modesty panel and drawer box carcass manufactured from matching 16mm substrate veneer board with all edges sealed with matching veneer. Frame to be 32x1.6mm thick square tubing with baked black epoxy/polyester powder coating finish, durable plugs fitted to all leg ends. Drawer fronts to be 21mm solid Saligna Hardwood, top drawer to be lockable with the approved locks. Provide approved drawer handles and drawer slides. Provide knock-down 'prisma' fitting. Modesty panel to be secured to steel frame with 4.8x27mm large flange pop reverts. All timber components to be varnished with two coats of acid catalyzed lacquer. Desk to comply with SABS 1528-2:1918 (EDITION 1.1)

No

22

**Filling rack pigeon hole 30 rack.**

76 890 x 400 x 1435mm LP. Laminate: Double Decor with 16mm substrate. 6.4mm shelves and 3.2mm back panel recessed into top and sides (in hardboard). All exposed edges o be edged with mathcing laminate.

No

3

**Carried to Collection**

R

Section No. 11  
 Section 11: Joinery Fittings  
 Bill No. 1  
 Joinery Fittings  
**REPAIRS & RENOVATIONS**

Section No. 11

Section 11: Joinery Fittings

Bill No. 1

Joinery Fittings

**COLLECTION**

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**Carried to Final Summary**

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Section No. 11

Section 11: Joinery Fittings

Bill No. 1

Joinery Fittings

**REPAIRS & RENOVATIONS**

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<b><u>SECTION NO. 12</u></b>				
		<b><u>BILL NO. 1</u></b>				
		<b><u>SITE CLEARANCE</u></b>				
		<b><u>PREAMBLES</u></b>				
		For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b				
	SANS 1200C	<b><u>SITE CLEARANCE</u></b>				
1	8.2.1	Clear and Grub the site	HA	1.00		
2	8.2.2	Remove and grub large trees and tree stumps of girth over 1m and up to including 2m	No	10		
3	8.2.9	Cart materials and debris to unspecified sites and dump (provisional)	T.KM	10		
		<b>Carried Forward to Summary of Section No. 12</b>				
		Section No. 12 Section 12: External Works Bill No. 1 Site clearance <b>REPAIRS &amp; RENOVATIONS</b>				R

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<b><u>SECTION NO. 12</u></b>				
		<b><u>BILL NO. 2</u></b>				
		<b><u>BULK EARTHWORKS</u></b>				
		<b><u>PREAMBLES</u></b>				
		For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b				
	SANS 1200D	<b><u>BULK EARTHWORKS</u></b>				
		<b><u>PLATFORMS</u></b>				
1	8.3.1.2	Remove topsoil cut to depths between 100mm and 150mm to spoil (rate to include overhaul)	m3	450		
2	8.3.2a	Excavate in soft material and place directly to fill	m3	450		
3	8.3.2a	Excavate in soft material cut to spoil (rate to include overhaul)	m3	450		
4		Import G5 quality material and compacted to 98% Mod AASHTO in 150mm layers	m3	900		
5	8.3.2b	Extra Over for items 8.3.2a for excavation in hard material	m3	60		
6	8.3.2a	Compact fill material to 93% Mod. AASHTO	m3	900		
7		Trimming of Embankments	m2	70		
8	8.3.2a	Formation (fill)	m2	50		
		<b>Carried to Collection</b>				
		Section No. 12 Section 12: External Works Bill No. 2 Bulk Earthworks <b>REPAIRS &amp; RENOVATIONS</b>				
					R	

		<u><b>PARKINGS</b></u>				
9	8.3.1.2	Remove topsoil to depths between 100mm and 150mm to spoil (rate to include overhaul)	m3	872		
10	8.3.2a	Excavate in soft material and place directly to fill	m3	872		
11	8.3.2a	Excavate in soft material to spoil (rate to include overhaul)	m3	872		
12	8.3.2b	Extra Over for items 8.3.2a excavation in hard material	m3	90		
13	8.3.2a	Compact fill material to 93% Mod. AASHTO	m3	1,110		
14	8.3.2a	Formation (fill)	m2	60		
15		Trimming of Embankments	m2	40		
16	8.3.4	Import G4 quality material from off site or commercial source and compact to 100% Mod AASHTO in 150mm layer (rate to include overhaul)	m3	1,744		
17		G6 layer - compacted to 98% of modified AASHTO density of 100mm thick	m3	872		
18		G7 layer - compacted to 95% of modified AASHTO density of 100mm thick	m3	872		
19		Finishing the site (Rate to include backfilling behind the kerbs, topsoiling and grass planting)	m2	800		
		<b>Carried to Collection</b>				
		Section No. 12				
		Section 12: External Works				
		Bill No. 2				
		Bulk Earthworks				
		<b>REPAIRS &amp; RENOVATIONS</b>				
						R

Section No. 12 Section 12: External Works Bill No. 2 Bulk Earthworks <b><u>COLLECTION</u></b>		
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Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<b><u>SECTION NO. 12</u></b>				
		<b><u>BILL NO. 3</u></b>				
		<b><u>STORMWATER RETICULATION</u></b>				
		<b><u>PREAMBLES</u></b>				
		For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b				
	SANS 1200	<b><u>STORMWATER</u></b>				
		<b><u>Excavate for 375mm diameter pipes in all materials where depth is:</u></b>				
1	8.3.2a	0 m up to 1,5 m	m	20		
2	8.3.2b	Extra over sub item 8.3.2.a for excavation in hard material irrespective of depth.	m	5		
3	8.2.1	Impermeable backfilling to storm water drainage systems	m	10		
4	8.2.2.1	Provision of granular sand bedding (Class C) from commercial or off-site source	m	8		
5		Encasing of pipes in concrete (Provisional)	m	20		
		<b><u>20MPa/19mm Reinforced concrete in open stormwater v-drain channel including excavations, formwork, finishes etc.</u></b>				
6		1000mm Wide Channel	m	587		
		<b>Carried to Collection</b>				
		Section No. 12 Section 12: External Works Bill No. 3 Stormwater Reticulation <b>REPAIRS &amp; RENOVATIONS</b>				
					R	

7

1200mm Wide Channel

m

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**Carried to Collection**

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Stormwater Reticulation  
**REPAIRS & RENOVATIONS**

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Section No. 12 Section 12: External Works Bill No. 3 Stormwater Reticulation <b>REPAIRS &amp; RENOVATIONS</b>		-----



		<p><b><u>Filling</u></b></p> <p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p> <p><b><u>Excavations in conditions other than earth</u></b></p> <p>Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly</p> <p><b><u>Subterranean water</u></b></p> <p>The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.</p>			
	SANS 1200 DB	<p><b><u>EARTHWORKS FOR PIPE TRENCHES</u></b></p>			
	8.3.2a	<p><b><u>Excavate for 160mm diameter pipes in all materials where depth is:</u></b></p>			
1		0 m up to 1,5 m	m	400	
2		1,5 m up to 2,0 m	m	230	
3	8.3.2b	Extra over sub item 8.3.2a for excavation in hard material irrespective of depth.	m3	55	
		<b>Carried to Collection</b>			
		<p>Section No. 12                  Section 12: External Works                  Bill No. 4                  Sewer Reticulation  <b>REPAIRS &amp; RENOVATIONS</b></p>			R

4	8.2.2.3	Provision of granular sand bedding (Class C) from commercial or off-site source	m3	140	
5	8.2.1	Impermeable backfilling to sewer	m3	530	
6	8.2.1	Encasing of pipes in concrete (Provisional)	m3	12	
7		Disposal of surplus material caused by importation of bedding and removal of hard or rock material to spoil	m2	195	
	SANS 1200	<b><u>SEWER</u></b>			
	8.2.1	<b><u>uPVC PIPES</u></b>			
		<b><u>Supply, pipe lay in trenches approved solid wall Upvc Class 34 pipe to SABS ISO 4427. Pipes to be supplied in lengths of 12m of nominal diameter.</u></b>			
8		160mm uPVC pipe	m	830	
	8.2.3	<b><u>MANHOLES</u></b>			
		<b><u>Precast Concrete manholes complete with class 25MPa/ 19mm base, concrete benching on and including class 10MPa/13mm concrete filling, step, type 4 cast iron heavy duty cover and frame on and including precast concrete adaptor frame and grid inlet sealed to and including concrete ring beam with polysulphide sealant, to depths:</u></b>			
9		500 mm up to 750m deep invert	No	3	
10		750 mm up to 1m deep invert	No	3	
11		1.0m up to 1.25m ditto	No	3	
12		1.25m up to 1.50m ditto	No	14	
		<b>Carried to Collection</b>			R
		Section No. 12 Section 12: External Works Bill No. 4 Sewer Reticulation <b>REPAIRS &amp; RENOVATIONS</b>			

13	1.50m up to 1.75m ditto	No	2	
14	1.75m up to 2.0m ditto	No	2	
	<b><u>TESTING AND COMMISSIONING</u></b>			
15	Allow for testing and commissioning of new sewer system		Item	
	<b><u>THE FOLLOWING IN SEPTIC TANK AND FRENCH DRAIN</u></b>			
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<b><u>Excavation in earth or compacted filling not exceeding 2m deep</u></b>			
16	Septic tank	m3	60	
	<b><u>Extra over excavations in earth for excavation in:</u></b>			
17	Soft rock	m3	6	
18	Hard rock	m3	3	
	<b><u>Extra over all excavations for carting away</u></b>			
19	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	51	
	<b><u>Risk of collapse of excavations</u></b>			
20	Sides of trench and hole excavations not exceeding 1,5m deep	m2	102	
	<b><u>Keeping excavations free of water</u></b>			
21	Keeping excavations free of water		Item	
	<b>Carried to Collection</b>			
	Section No. 12			
	Section 12: External Works			
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	Sewer Reticulation			
	<b>REPAIRS &amp; RENOVATIONS</b>			

R

	<b><u>FILLING, ETC</u></b>			
	<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>			
22	Backfilling to trenches, holes, etc	m3	9	
	<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 91% Mod AASHTO to density</u></b>			
23	Backfilling to trenches, holes, etc	m3	6	
	<b><u>Compaction of surfaces</u></b>			
24	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	15	
	<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<b><u>10MPa/19mm Concrete in:</u></b>			
25	Blinding under footings and bases	m3	1	
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<b><u>25 MPa Concrete in:</u></b>			
26	Slab	m3	4	
27	Bases	m3	4	
	<b>Carried to Collection</b>			
	Section No. 12 Section 12: External Works Bill No. 4 Sewer Reticulation <b>REPAIRS &amp; RENOVATIONS</b>			R

28	<p><b><u>TEST BLOCKS</u></b></p> <p>Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)</p>	No	2		
29	<p><b><u>FOUNDATIONS (PROVISIONAL)</u></b></p> <p><b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b></p> <p>One brickwalls</p>	m2	60		
30	<p><b><u>Brickwork reinforcement</u></b></p> <p><b><u>BRICKWORK SUNDRIES</u></b></p> <p><b><u>Brickwork reinforcement</u></b></p> <p>150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)</p>	m	240		
31	<p><b><u>Forming holes etc</u></b></p> <p>Form hole for 110mm diameter pipes</p>	No	2		
32	<p><b><u>CONCRETE SUNDRIES</u></b></p> <p><b><u>Finishing top surfaces of concrete smooth with a wood float</u></b></p> <p>Surface beds, slabs, etc</p>	m2	20		
33	<p><b><u>Covers etc</u></b></p> <p>Heavy duty cast iron manhole cover and frame size 450 x 500mm</p>	No	2		
	<p><b>Carried to Collection</b></p>				R
	<p>Section No. 12                  Section 12: External Works                  Bill No. 4                  Sewer Reticulation  <b>REPAIRS &amp; RENOVATIONS</b></p>				

	<b><u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u></b>			
	<b><u>Rough formwork to soffits</u></b>			
34	Slabs with sloping soffits propped up exceeding 1.5m high and not exceeding 3m high	m2	20	
	<b><u>Rough formwork to sides</u></b>			
35	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	16	
	<b><u>REINFORCEMENT</u></b>			
	<b><u>Mild steel reinforcement to structural concrete work</u></b>			
36	8mm Diameter bars	kg	50	
	<b><u>High tensile steel reinforcement to structural concrete work</u></b>			
37	16mm Diameter bars	kg	350	
	<b><u>FRENCH DRAIN</u></b>			
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<b><u>Excavation in earth or compacted filling not exceeding 2m deep</u></b>			
38	French drain	m3	30	
	<b><u>Extra over excavations in earth for excavation in:</u></b>			
39	Soft rock	m3	3	
40	Hard rock	m3	2	
	<b>Carried to Collection</b>			
	Section No. 12 Section 12: External Works Bill No. 4 Sewer Reticulation <b>REPAIRS &amp; RENOVATIONS</b>			R

41	<p><b><u>Extra over all excavations for carting away</u></b></p> <p>Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor</p>	m3	20	
	<p><b><u>FILLING, ETC</u></b></p> <p><b><u>15mm to 75mm Stone filling supplied by the contractor compacted in 150mm layers compacted to 91% Mod AASHTO to density</u></b></p>			
42	<p>Backfilling to trenches, holes, etc</p>	m3	25	
	<p><b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 90% Mod AASHTO to density</u></b></p>			
43	<p>Backfilling to trenches, holes, etc</p>	m3	5	
	<p><b><u>Sundries</u></b></p>			
44	<p>Geo-fabric filter blanket wrapped around stone with 150mm side and 300mm end laps, including stitching</p>	m2	8	
45	<p>110mm Upvc perforated pipes laid in stone</p>	m	4	
46	<p>Extra over pipe for 110mm diameter capped end</p>	No	4	
47	<p>Extra over pipe for 110mm dia junction</p>	No	2	
48	<p>Extra over pipe for 110mm dia bend</p>	No	2	
	<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 12 Section 12: External Works Bill No. 4 Sewer Reticulation <b>REPAIRS &amp; RENOVATIONS</b></p>			R

Section No. 12		
Section 12: External Works		
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Sewer Reticulation		
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Sewer Reticulation		
<b>REPAIRS &amp; RENOVATIONS</b>		

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<b><u>SECTION NO. 12</u></b>				
		<b><u>BILL NO. 5</u></b>				
		<b><u>WATER RETICULATION</u></b>				
		<b><u>PREAMBLES</u></b>				
		For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b				
	SANS 1200	<b><u>EARTHWORKS FOR PIPE TRENCHES</u></b>				
	8.3.2a	<b><u>Excavate for 63mm diameter pipes in all materials where depth is:</u></b>				
	8.3.2a	<b><u>0 m up to 1,5 m</u></b>				
1		20mm dia. connections	m	44		
2		32mm dia. connections	m	120		
3		40mm dia. connections	m	54		
4		63mm dia. connections	m	312		
5	8.3.2b	Extra over sub item 8.3.2a for excavation in hard material irrespective of depth.	m3	20		
6	8.2.2.3	Provision of granular sand bedding (Class C) from commercial or off-site source	m3	96		
7	8.2.1	Impermeable backfilling to water	m3	252		
8		Encasing of pipes in concrete (Provisional)	m3	5		
		<b>Carried to Collection</b>				
		Section No. 12 Section 12: External Works Bill No. 5 Water Reticulation <b>REPAIRS &amp; RENOVATIONS</b>				
						R

9	8.2.1	Disposal of surplus material caused by importation of bedding and removal of hard or rock material to spoil	m3	96	
	SANS 1200 L	<b><u>WATERMAIN</u></b>  <b><u>Supply, lay in trenches approved solid wall Upvc Class 12 pipe to SABS ISO 4427. Pipes to be supplied in lengths of 12m of nominal diameter;</u></b>			
10	8.2.1	50mm	m	512	
11	8.2.1	40mm	m	54	
12	8.2.1	32mm	m	120	
13	8.2.1	20mm	m	44	
		<b><u>FITTINGS - Upvc</u></b>  <b><u>Supply, and lay in trenches, walls, ceilings, etc. approved solid wall Upvc Class 12 pipe SABS ISO 4427.</u></b>  <b><u>Stop Cocks</u></b>			
14	8.2.5	Supply and install 50mm diameter water valves	No	8	
15	8.2.5	Supply and install 32mm diameter water valves	No	12	
		<b><u>uPVC Long radius 90 degrees bends</u></b>			
16		100mm	No	1	
17		50mm	No	6	
18		40mm	No	10	
19		32mm	No	3	
20		20mm	No	14	
		<b>Carried to Collection</b>			
		Section No. 12 Section 12: External Works Bill No. 5 Water Reticulation <b>REPAIRS &amp; RENOVATIONS</b>			R

		<b><u>uPVC Equal T-piece</u></b>			
21	8.2.2	50mm	m	4	
22	8.2.2	40mm	m	9	
23	8.2.2	32mm	m	6	
24	8.2.2	20mm	m	4	
		<b><u>uPVC Reducing T-piece</u></b>			
25	8.2.2	50mm x 40mm	m	7	
26	8.2.2	50mm x32mm	m	8	
27	8.2.2	40mm x 32mm	m	4	
28	8.2.2	32mm x 20mm	m	6	
		<b><u>uPVC Straight Reducers</u></b>			
29	8.2.2	75mm x 63mm	m	1	
30	8.2.2	50mm x 40mm	m	3	
31	8.2.2	50mm x32mm	m	4	
32	8.2.2	40mm x 32mm	m	4	
33	8.2.2	32mm x 20mm	m	7	
	8.2.5	<b><u>WATER METER</u></b>			
		Registers 6 digit cyclometer-type totalisers registering kL, must be hermetically sealed. Main valave body to be cast iron, and meter to be installed horizontally. Meter to be fitted with "intelligent" automatic data register, accuracy better than 2% Meter tendered for.....See Detail			
		<b>Carried to Collection</b>			
		Section No. 12 Section 12: External Works Bill No. 5 Water Reticulation <b>REPAIRS &amp; RENOVATIONS</b>			R



40	<p><b><u>Old world concrete or equally approved drinking fountain</u></b></p> <p>Precast concrete drinking fountain 800mm high complete with gulley, tap, pipework etc</p>	No	4	
41	<p><b><u>TESTING AND COMMISSIONING</u></b></p> <p>Allow for testing and commissioning of new water system</p>		Item	
<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 12 Section 12: External Works Bill No. 5 Water Reticulation <b>REPAIRS &amp; RENOVATIONS</b></p>				<p style="text-align: center;">R</p>

Section No. 12 Section 12: External Works Bill No. 5 Water Reticulation <b><u>COLLECTION</u></b>		
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Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<b><u>SECTION NO. 12</u></b>				
		<b><u>BILL NO. 6</u></b>				
		<b><u>ROADS AND PAVINGS</u></b>				
		<b><u>PREAMBLES</u></b>				
		For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b				
		<b><u>MAINTENANCE PERIOD</u></b>				
		The maintenance period for the following work shall be 12 calendar months				
		<b><u>ROADWORKS AND PARKINGS</u></b>				
	SANS 1200 DM					
1	8.2.2	80mm Grey Permeable Paving Blocks	m2	1,600		
2	8.2.2	60mm Grey Permeable Paving Blocks	m2	900		
3	8.2.2	Cobble stone	m2	400		
	SANS 1200 MK					
		<b><u>ROADWORKS AND PARKINGS</u></b>				
4	8.2.1	Prefabricated mountable kerb, SABS 927 fig 8c, as shown on the detailed drawings	m	160		
5	8.2.1	Prefabricated mountable kerb, SABS 927 fig 8c circular on plan, as shown on the detailed drawings	m	10		
6	8.2.1	Prefabricated Vertical kerb, fig 3m, as shown on the detailed drawings	m	257		
		<b>Carried to Collection</b>				
		Section No. 12 Section 12: External Works Bill No. 6 Roads and Pavings <b>REPAIRS &amp; RENOVATIONS</b>				
					R	

7	8.2.1	Prefabricated Vertical kerb, fig 3m circular on plan, as shown on the detailed drawings	m	10	
8	8.2.1	Prefabricated edging kerb, SABS 927 fig 12, as shown on the detailed drawings	m	145	
9	8.2.1	Prefabricated edging kerb, SABS 927 fig 12 circular on plan, as shown on the detailed drawings	m	10	
10		Circular cutting	m	30	
		<b><u>CONCRETE GROUND SLABS, PAVINGS, JOINTS, ETC</u></b>			
11		25Mpa Reinforced concrete in ground slabs, pavings, etc.	m3	111	
12		25Mpa Reinforced concrete in ramps, etc.	m3	6	
13		Type 193 mesh reinforcement to concrete slabs	m2	740	
14		Finishing top surfaces of concrete surfaces with a wood float	m2	771	
		<b><u>JOINTS, ETC.</u></b>			
15	SANS 1200	6mm x 15mm Saw cut joint in concrete slab	m	310	
16		15mm Expansion joint with joint former and polysulphipe sealant	m	310	
		<b><u>ROADWORKS REMAINDER</u></b>			
17		Extra over items 6.1.3 for curves with radius less than 25mm but greater or equal to 2.0m	m	60	
		<b>Carried to Collection</b>			
		Section No. 12 Section 12: External Works Bill No. 6 Roads and Pavings <b>REPAIRS &amp; RENOVATIONS</b>			R

18		Overhaul of material hauled in excess of 1.0 km (ordinary overhaul)	m3.km	235	
		<b><u>MANHOLE AND APPURTENANT DRAINAGE WORKS</u></b>			
19		Standard brick stormwater manholes with Cast Iron Grid inlet	m	1	
	SANS 1200 MM	<b><u>ROAD MARKINGS</u></b>			
	8.4.1	<b><u>Non-reflective paint applied at nominal rate of 0.42l/m2 (or proprietary brand road marking material (norminal rate of application and particulars stated)</u></b>			
20	8.4.1c	White characters and symbols	m2	20	
21	8.4.1e	Traffic island markings (all colours)	m2	10	
	8.4.1a	<b><u>White lines (broken or unbroken)</u></b>			
22	8.4.1a	100mm Wide	m	129	
23	8.4.1a	150mm Wide	m	50	
24	8.4.4b	Disabled parking sign	No	1	
25	8.4.4a	Standard "STOP" sign	No	2	
	8.4.1b	<b><u>Yellow lines (broken or unbroken)</u></b>			
26	8.4.1.2	100mm Wide	m	50	
		<b>Carried to Collection</b>			
		Section No. 12 Section 12: External Works Bill No. 6 Roads and Pavings <b>REPAIRS &amp; RENOVATIONS</b>			R

Section No. 12 Section 12: External Works Bill No. 6 Roads and Pavings <b><u>COLLECTION</u></b>		
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Item No	<b><u>SECTION NO. 12</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 7</u></b>			
	<b><u>DECANTING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>REMOVAL OF EXISTING WORK</u></b>			
	<b><u>Relocate existing sundry metal work and re-fixing in new position</u></b>			
1	Covered play area 11 050 x 5370mm high	No	1	
2	Mobile classrooms 8 060 x 7 170mm high	No	2	
	<b><u>BULK EXCAVATION, FILLING TO FORM PLATFORMS, ETC</u></b>			
	<b><u>Excavation not exceeding 2m deep</u></b>			
3	Over site to reduce levels and depositing excavated material in prescribed stock piles on site	m3	553	
	<b><u>Extra over bulk excavation in earth for excavation in</u></b>			
4	Soft rock	m3	55	
5	Hard rock	m3	111	
	<b><u>Extra over all excavations for carting away</u></b>			
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	553	
	<b>Carried to Collection</b>			
	Section No. 12			
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	Decanting			
	<b>REPAIRS &amp; RENOVATIONS</b>			
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<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling (G7 material in accordance with SABS 1200 DM) supplied by the contractor in filling up levels to form building platforms, compacted to 95% Mod AASHTO density</u></b>					
7	Filling to form level platforms, etc	m3	250		
<b><u>Earth filling material supplied by the contractor compacted in 150mm layers compacted to 93% Mod AASHTO to density</u></b>					
8	Sub-base C4 cemented course under parking areas etc with crushed stone material from commercial sources compacted to 95% Mod AASHTO density.	m3	151		
9	Base C3 cemented course under parking areas etc crushed stone material from commercial sources compacted to 95% Mod AASHTO density.	m3	151		
<b><u>Compaction of surfaces</u></b>					
10	Compaction of ground surface under parking or paving areas etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 97% Mod AASHTO density	m2	1,228		
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>					
<b><u>Soil insecticide under a 10 year guarantee by firm of specialist</u></b>					
11	Under pavings	m2	673		
<b><u>PAVINGS</u></b>					
<b><u>Paving of 80mm paving burnt clay bricks to comply with SABS 1575 with butt joints on 20mm thick river sand bed with sand and cement mixture swept into joints and hosed down including preparation of ground or filling</u></b>					
12	Paving in herringborne pattern	m2	673		
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<b>REPAIRS &amp; RENOVATIONS</b>					

13	220mm Wide brick-on-flat header course edging on 20mm thick mortar bed	m	420
14	Fair circular cutting	m	40
	<b><u>Saw cut joints</u></b>		
15	10 x 10mm Saw cut joints in top of pavings	m	30
	<b><u>Prescribed density tests on filling</u></b>		
16	"Natural California Bearing Ratio" test	No	25
	<b><u>CARPORTS</u></b>		
	<b><u>Prefabricated shadeport treble unit constructed of tubular mild steel welded and bolted frame included knitted polyethelene net with 88% shade factor fixed to frame with galvanised cable or pipe surround complete with excavations, backfilling, cartway, risk of colapse, concrete in bases etc.</u></b>		
17	5000 x 2500mm Carports	No	3
	<b><u>ROAD MARKINGS</u></b>		
	<b><u>White lines (broken or unbroken)</u></b>		
18	b) 100mm wide	m	50
19	b) 150mm wide	m	10
20	c) Disabled parking sign	No	1
21	d) Standard "STOP" sign	No	1
22	e) Direction arrow 5000mm long	No	2

Carried to Collection

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Section No. 12  
 Section 12: External Works  
 Bill No. 7  
 Decanting  
**REPAIRS & RENOVATIONS**

<b><u>ROAD SIGNS</u></b>			
<b><u>Standard road sign with standard 50mm diameter galvanized mild steel fixing post bedded into and including bases, including any necessary excavation, mass concrete, etc.</u></b>			
23	610mm "STOP" sign	No	1
24	610mm "DISABLED" sign	No	1
<b><u>KERBING</u></b>			
<b><u>Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing</u></b>			
25	Kerb (SABS 927 fig 8) 150 x 300mm high with 500 x 150mm reinforced concrete base and 150 x 150 x 300mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc "LI"	m	380
26	Kerb (SABS 927 fig 8) 150 x 300mm high with 300 x 250mm reinforced concrete haunching at back of each joint circular on plan exceeding 4m radius formed with short lengths of straight kerb including excavation, backfilling, etc "LI"	m	40
<b><u>TEMPORARY MOBILE CLASSROOM</u></b>			
<b><u>Temporary Mobile Classrooms Structures for 12 Months Rental including delivery, joining and installation on site location identified by Contractor, Project Manager and School</u></b>			
27	Five (5) No. Classroom mobile units size 8.0m x 6.0m	Mnt	12
28	Two (2) No. Office cabins mobile units size 8.0m x 6.0m	Mnt	12
<b><u>Relocation of furniture</u></b>			
29	Relocation of existing furniture to temporary mobile classrooms and offices		SUM
30	Relocation of existing furniture to classrooms from temporary classrooms		SUM
<b>Carried to Collection</b>			R
Section No. 12			
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<b>REPAIRS &amp; RENOVATIONS</b>			

<b><u>Removal of existing pavings and stock pile on site (relaying elsewhere).</u></b>				
31	Pavings	m2	673	
<b><u>Relaying existing paving (removal elsewhere)</u></b>				
32	Pavings	m2	673	
<b>Carried to Collection</b>				R
Section No. 12				
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Decanting

**COLLECTION**

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Decanting

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 12</u></b></p>			
<p><b><u>BILL NO. 8</u></b></p>			
<p><b><u>COVERED WALKWAY ETC (PROVISIONAL)</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p>The site has been classified as dolomite risk D3 with pockets of D4 classification.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 12 Section 12: External Works Bill No. 8 Walkways <b>REPAIRS &amp; RENOVATIONS</b></p>			R

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EARTHWORKS (PROVISIONAL)**

**BULK EXCAVATION, FILLING TO FORM PLATFORMS, ETC**

**Excavation not exceeding 2m deep**

1	Over site to reduce levels and depositing excavated material in prescribed stock piles on site	m3	446
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**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

2	Holes	m3	46
3	Edge beam	m3	9

**Extra over excavations in earth for excavation in:**

4	Soft rock	m3	50
5	Hard rock	m3	100

**Carried to Collection**

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Section No. 12  
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**REPAIRS & RENOVATIONS**

<b><u>Extra over all excavations for carting away</u></b>				
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	500	
<b><u>Risk of collapse of excavations</u></b>				
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	725	
<b><u>Keeping excavations free of water</u></b>				
8	Keeping excavations free of water		Item	
<b><u>FILLING, ETC</u></b>				
<b><u>Earth filling of G7 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>				
9	Under floors, steps, pavings, etc	m3	50	
<b><u>Earth filling material supplied by the contractor compacted in 150mm layers compacted to 93% Mod AASHTO to density</u></b>				
10	Sub-base C4 cemented course under parking areas etc with crushed stone material from commercial sources compacted to 95% Mod AASHTO density.	m3	223	
11	Base C3 cemented course under parking areas etc crushed stone material from commercial sources compacted to 95% Mod AASHTO density.	m3	223	
<b><u>Compaction of surfaces</u></b>				
12	Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	990	
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**SOIL POISONING AND PROTECTION AGAINST TERMITES**

**Soil insecticide under a 10 year guarantee by firm of specialist**

13	To bottoms and sides of trenches, etc	m2	846
14	Under pavings	m2	990

**PAVINGS**

**Paving of 60mm Grey Permeable Paving Blocks to comply with SABS 1575 with butt joints on 20mm thick river sand bed with sand and cement mixture swept into joints and hosed down including preparation of ground or filling**

15	Paving in herringbone pattern	m2	990
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**Saw cut joints**

16	10 x 10mm Saw cut joints in top of pavings	m	40
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**Prescribed density tests on filling**

17	"Modified AASHTO Density" test	No	20
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**CONCRETE, FORMWORK AND REINFORCEMENT**

**SUPPLEMENTARY PREAMBLES**

**Cost of tests**

The costs of making, storing and testing of concrete test cubes/slump tests as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the Engineer. (Test cubes are measured separately)

**Carried to Collection**

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Section No. 12  
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 Walkways  
**REPAIRS & RENOVATIONS**

**Formwork**

Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15MPa/19mm Concrete in:**

18	Blinding under footings and bases	m3	4
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**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**25 MPa Concrete in:**

19	Bases	m3	46
20	Edge beam	m3	9

**Carried to Collection**

R

Section No. 12  
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 Walkways  
**REPAIRS & RENOVATIONS**

**TEST BLOCKS**

21 Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)

No 8

**ROUGH FORMWORK (DEGREE OF ACCURACY II)**

**Rough formwork to sides**

22 Edges, risers, ends and reveals not exceeding 300mm high or wide

m 1,800

**WATERPROOFING**

**DAMPPROOFING OF WALLS AND FLOORS**

**One layer 250 micron green polyethylene waterproof sheeting complying with SABS 952 Type C in widest practicable widths with all joints lapped and sealed with pressure sensitive tape all in strict accordance with the manufacturer's requirements**

23 Under pavings etc

m2 990

**ROOF COVERINGS, ETC**

**SUPPLEMENTARY PREAMBLES**

Descriptions of all roof coverings are deemed to include for all straight cutting

**Note:** The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified

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**REPAIRS & RENOVATIONS**

**PROFILED METAL SHEETING AND ACCESSORIES**

**0,80mm Approved Z450 Klip-lok 700 profile galvanised sheet steel with chromadeck finish on one side in single lengths fixed to timber purlins or rails and 0,60mm approved Z450 galvanised sheet steel accessories with silicon polyester finish on one side**

**Note:** The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified

24	Roof covering with pitch not exceeding 25 degrees	m2	1,080
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**STRUCTURAL STEELWORK**

**SUPPLEMENTARY PREAMBLES**

**Descriptions**

Descriptions of bolts shall be deemed to include nuts and washers

Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete

**STRUCTURAL STEELWORK**

**Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to rafters**

25	100 x 100 x 4mm SHS	t	16.764
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**REPAIRS & RENOVATIONS**

**STEEL TRUSSES ETC**

**Welded portal frames with flat section bearer, gusset and connection plates and L-section cleats bolted to concrete**

26	150 x 100 x 3mm RHS	t	6.195
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**PURLINS, GIRTS, BRACING, ETC**

**Purlins and girts bolted to steel**

27	150 x 75 x 20 x 2.5mm Thick CFLC purlins	t	13.180
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28	125 x 75 x 8mm Thick angle cleat	t	0.668
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29	50 x 6mm Flat bars	t	0.086
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**Welded bracing etc with flat section connection plates bolted to steel**

30	50 x 50 x 5 Angle section bracing	t	1.531
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**Base plates**

31	300 x 300 x 4mm Base plate	t	0.859
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32	100 x 100 x 8mm Gusset plate	t	0.191
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**Bolts and nuts**

33	M12 x 50 Bolts and nuts.	No	2,432
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**REPAIRS & RENOVATIONS**

**GUTTERS, DOWNPIPES, ETC.**

**Commercial and industrial ogee profile chromadeck seamless gutter coated internally and externally in colour bateleur brown with matching splashplate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with Dow Corning 813 silicone sealer, secured to fibre cement facia with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled riverts, with 75 x 50 x 0.6mm thick chromadeck downpipe in colour beteleur brown fixed to wall with straps at 1500mm centres using nail plugs, with downpipes riverted and silicone sealed to gutter outlets, including all necessary bends, elbows, shoes etc**

34	150 x 125 x 0.8mm Thick overall commercial and industrial Ogee seamless eaves gutters coated internally and externally including sealing joints inside with approved silicone sealer, and fixed to fascia board (fascia board elsewhere measured) with 20 x 2.5mm hanger brackets at 600mm centres using aluminium peeled rivets	m	450
35	100 x 75 x 0.6mm Rainwater downpipe with brackets fixed to brick wall or concrete	m	243
36	Extra for outlet with nozzle for and jointed to 100mm diameter galvanised sheet iron downpipe including galvanised wire balloon grating	No	90
37	Extra over 150 x 125 x 0.8mm thick ogee eaves gutter for stopped end	No	20
38	Extra over 150 x 125 x 0.8mm Ogee eaves gutter for angle	No	90
39	Extra over 150 x 125 x 0.8mm ogee eaves gutter for outlet for 75 x 50mm pipe	No	90
40	Extra over 75 x 50 x 0.6mm rainwater pipe for eaves offset	No	90
41	Extra over 75 x 50 x 0.6mm rainwater pipe for shoe	No	90

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**REPAIRS & RENOVATIONS**

**PAINTWORK, ETC TO NEW WORK**

**ON METAL**

**Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint**

42	On structural steel	t	38
43	On eaves gutters	m2	360
44	On down pipes	m2	87

**FLAGPOLES AND FLAGS**

45	Supply and install 6m high flag pole complete including casting concrete, excavations, cartaway etc	No	2
46	Supply South Africa standard flag 180 x 120mm	No	1
47	Supply GaoKganya Primary school digitally printed flags unto ultrasheen finished with rope and tongle size 180 x 120mm	No	1

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Bill No. 8

Walkways

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 12</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 9</u></b>			
	<b><u>FENCING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>REMOVAL OF EXISTING WORK:</u></b>			
	<b><u>Taking out/off and removing sundry metalwork</u></b>			
1	Palisade security fencing 2.4m high made of 50 x 50 x 5mm angle iron top and bottom rails , filled in vertically with 40 x 40 x 3mm angle iron palisades 2400mm long at 150mm centres, panels fixed to 100 x 100 x 3mm posts with top cap cast into concrete bases 300 x 300 x 250mm thick with bottom of base 500mm below natural ground level complete with earth works, etc.	m	633	
	<b><u>Carefully taking out/off and removing sundry metalwork setting aside for re-use and later refixing in new position (re-fixing in new position elsewhere)</u></b>			
2	Palisade security fencing 2.4m high made of 50 x 50 x 5mm angle iron top and bottom rails , filled in vertically with 40 x 40 x 3mm angle iron palisades 2400mm long at 150mm centres, panels fixed to 100 x 100 x 3mm posts with top cap cast into concrete bases 300 x 300 x 250mm thick with bottom of base 500mm below natural ground level complete with earth works, etc.	m	179	
	<b>Carried to Collection</b>			
	Section No. 12 Section 12: External Works Bill No. 9 Fencing <b>REPAIRS &amp; RENOVATIONS</b>			R

3	<p><b><u>Refixing of existing palisade fence, etc (removal and setting aside elsewhere)</u></b></p> <p>Palisade security fencing 2.4m high made of 50 x 50 x 5mm angle iron top and bottom rails , filled in vertically with 40 x 40 x 3mm angle iron palisades 2400mm long at 150mm centres, panels fixed to 100 x 100 x 3mm posts with top cap cast into concrete bases 300 x 300 x 250mm thick with bottom of base 500mm below natural ground level complete with earth works, etc.</p>	m	179	
<p><b><u>FENCING</u></b></p>				
<p><b><u>"Invisible steel fence"</u></b></p>				
4	<p>Mesh panels size 3000mm wide x 3000mm high, 3mm Diameter high tensile wire galvanised with aperture size (centres) @ 76.2 x 12.7mm. Panel reinforced with 4 x 50mm deep v-recessed bands plus 2 x 75mm 70 degrees flanges along sides including shark tooth spike 2mm thick toughened steel 100 high, post size 85mm square galvanized post 3000mm high with locking recess mechanism and sealed with uv stabilized polymer cap, complete bedded in 25MPa concrete bases size 400 x 400 x 700mm deep and including excavations, 600mm invisible mesh extension buried in trench, backfilling, cart way etc as per drawing number PJN_ZA_2020_2003_DBSA_GKPS_SE_4004_R00</p>	m	489	
<p><b><u>Gates finish to match existing invisible steel fence</u></b></p>				
5	<p>Single gate size, 1000 x 3000mm high of 150 x 150mm hollow section frame with 50 x 3mm flat bar spikes welded to top rail at 50mm C/C, complete including excavations, cart away, concrete under rail, 25 x 25 x 3mm galvanised mild steel angle cast in concrete, hinges, 1 x double cylinder mortice lock, welded to steel columns</p>	No	2	
<p style="text-align: center;"><b>Carried to Collection</b></p>				
<p>Section No. 12                  Section 12: External Works                  Bill No. 9                  Fencing  <b>REPAIRS &amp; RENOVATIONS</b></p>				

R

6	Sliding gate size, 6000 x 3000mm high of 85mm square galvanized post sealed with uv stabilized polymer cap, 3mm high tensile wires galvanized mesh, 3 number 100mm diameter gate wheels on 16mm bar with 100mm hot dipped galvanized high toughened steel castle spike fixed to panel internally at 150mm C/C, complete including excavations, cart away, concrete under rail, 25 x 25 x 3mm galvanised mild steel angle cast in concrete, hinges, 1 x double cylinder mortice lock as per drawing no. JPN_ZA_2020_2003_DBSA_KMPS_SE_4004_R00	No	1
7	Sliding gate size, 7000 x 3000mm high of 85mm square galvanized post sealed with uv stabilized polymer cap, 3mm high tensile wires galvanized mesh, 3 number 100mm diameter gate wheels on 16mm bar with 100mm hot dipped galvanized high toughened steel castle spike fixed to panel internally at 150mm C/C, complete including excavations, cart away, concrete under rail, 25 x 25 x 3mm galvanised mild steel angle cast in concrete, hinges, 1 x double cylinder mortice lock as per drawing no. JPN_ZA_2020_2003_DBSA_KMPS_SE_4004_R00	No	1

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**REPAIRS & RENOVATIONS**

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Section 12: External Works

Bill No. 9

Fencing

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Section 12: External Works

Bill No. 9

Fencing

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 12</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 10</u></b>			
	<b><u>LANDSCAPING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>Maintenance period</u></b>			
	All planted areas shall be maintained for a period of three months after practical completion as defined in the contract with the exception of hydro seeded areas which shall be maintained for 12 months after an acceptable cover has been obtained.			
	This maintenance shall consist of keeping clear of weeds and litter, loosening soil where necessary every two weeks, replacing damaged, diseased or dead plants, pruning, cutting and mowing as necessary and watering so as to keep the plant material in a healthy growing condition.			
	<b><u>Ground preparation</u></b>			
1	Cultivation and preparation of areas to be planted	m2	2,126	
	<b><u>Topsoil, compost, lime and fertilizer</u></b>			
2	Topsoil, Compost and Fertilizer in plant beds, holes for trees, shrubs, etc	m2	2,126	
	<b><u>GROUND COVERS</u></b>			
	<b><u>Grassing, ground covers, etc</u></b>			
3	"L.M. Lawn" Instant lawn	m2	2,126	
	<b>Carried to Collection</b>			R
	Section No. 12 Section 12: External Works Bill No. 10 Landscapping <b>REPAIRS &amp; RENOVATIONS</b>			

	<b><u>Trees, plants, etc</u></b>			
4	Clivia miniata	No	8	
	<b><u>BENCHES</u></b>			
	<b><u>Purpose made steel bench around tree with timber seat</u></b>			
5	Bench size 9000 x 600 x 600mm high complete and including 50 x 25mm thick meranti timber slats, filler pieces, angle irons, expansion bolts, rawl bolts, sealer, varnish, steel frame, paint etc	No	2	
	<b><u>Old world concrete or equally approved civic seat free standing benches</u></b>			
6	Civic benches with three slats size 1800 x 630mm high x 800mm high	No	8	
	<b>Carried to Collection</b>			R
	Section No. 12			
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Section 12: External Works

Bill No. 10

Landscapping

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Section 12: External Works

Bill No. 10

Landscapping

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 12</u></b></p>			
<p><b><u>BILL NO. 11</u></b></p>			
<p><b><u>CARPORTS</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p>All excavations are measured as being in "earth" and/or filling compacted to 93% modified AASHTO density</p>			
<p>Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the Contractor's method of operation</p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site and for bulking</p>			
<p><b><u>Descriptions</u></b></p>			
<p>Descriptions of bolts shall be deemed to include nuts and washers</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 12 Section 12: External Works Bill No. 11 Carports <b>REPAIRS &amp; RENOVATIONS</b></p>			
		R	

<b><u>EXCAVATION, FILLING, ETC</u></b>			
<b><u>Excavation in earth or compacted filling not exceeding 2m deep</u></b>			
1	Bases	m3	5
<b><u>Extra over excavations in earth for excavation in:</u></b>			
2	Soft rock	m3	0.5
3	Hard rock	m3	1
<b><u>Extra over all excavations for carting away</u></b>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	5
<b><u>Risk of collapse of excavations</u></b>			
5	Sides of trench and hole excavations not exceeding 1,5m deep	m2	38
<b><u>Keeping excavations free of water</u></b>			
6	Keeping excavations free of water		Item
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>			
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>			
7	To bottoms and sides of trenches, etc	m2	46
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
<b><u>10MPa/19mm Concrete in:</u></b>			
8	Blinding under footings and bases	m3	0.4
<b>Carried to Collection</b>			R
Section No. 12 Section 12: External Works Bill No. 11 Carports <b>REPAIRS &amp; RENOVATIONS</b>			

<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
<b><u>25 MPa Concrete in:</u></b>				
9	Bases	m3	5	
<b><u>TEST BLOCKS</u></b>				
10	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	1	
<b><u>REINFORCEMENT</u></b>				
<b><u>Mild steel reinforcement to structural concrete work</u></b>				
11	10mm Diameter bars	t	0.41	
<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>				
<b><u>0,80mm Approved Z450 Klip-lok 700 profile galvanised sheet steel with chromadeck finish on one side in single lengths fixed to timber purlins or rails and 0,60mm approved Z450 galvanised sheet steel accessories with silicon polyester finish on one side</u></b>				
<b><u>Note:</u></b> The Contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified				
12	Roof covering with pitch not exceeding 25 degrees	m2	411	
<b><u>STRUCTURAL STEELWORK</u></b>				
<b><u>Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to rafters</u></b>				
13	100 x 100 x 4mm SHS	t	1.344	
<b>Carried to Collection</b>				
Section No. 12 Section 12: External Works Bill No. 11 Carports <b>REPAIRS &amp; RENOVATIONS</b>				R

<b><u>STEEL TRUSSES ETC</u></b>			
<b><u>Welded portal frames with flat section bearer, gusset and connection plates and L-section cleats bolted to concrete</u></b>			
14	150 x 100 x 3mm RHS	t	1.024
<b><u>PURLINS, GIRTS, BRACING, ETC</u></b>			
<b><u>Purlins and girts bolted to steel</u></b>			
15	150 x 75 x 20 x 2.5mm Thick CFLC purlins	t	2.177
16	125 x 75 x 8mm Thick angle cleat	t	0.117
17	50 x 6mm Flat bars	t	0.009
<b><u>Welded bracing etc with flat section connection plates bolted to steel</u></b>			
18	50 x 50 x 5 Angle section bracing	t	0.524
<b><u>Base plates</u></b>			
19	300 x 300 x 4mm Base plate	t	0.090
20	100 x 100 x 8mm Gusset plate	t	0.020
<b><u>Bolts and nuts</u></b>			
21	M12 x 50 Bolts and nuts.	No	384
<b><u>PAINTWORK, ETC TO NEW WORK</u></b>			
<b><u>ON METAL</u></b>			
<b><u>Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint</u></b>			
22	On structural steel	t	5
<b>Carried to Collection</b>			
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**REPAIRS & RENOVATIONS**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 12</u></b>			
	<b><u>BILL NO. 12</u></b>			
	<b><u>COMBI COURTS, ETC. (PROVISIONAL)</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	All excavations are measured as being in "earth" and/or filling compacted to 93% modified AASHTO density Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the Contractor's method of operation Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site and for bulking			
	<b><u>EARTHWORKS (PROVISIONAL)</u></b>			
	<b><u>Excavation in earth or compacted filling not exceeding 2m deep</u></b>			
1	Trenches	m3	10	
2	Holes	m3	12	
3	Reducing levels under combi court area	m3	235	
	<b>Carried to Collection</b>			R
	Section No. 12 Section 12: External Works Bill No. 12 Combi courts <b>REPAIRS &amp; RENOVATIONS</b>			

<b><u>Extra over all excavations for carting away</u></b>				
4	Extra over all excavations for carting away surplus material from excavations and/or from stockpiles on site to a dumping site to be located by the Contractor	m3	235	
<b><u>Keeping excavations free of water</u></b>				
5	Allow for keeping excavations free of all water other than subterranean water		Item	
<b><u>Earth filling of G7 material supplied by the contractor compacted in 150mm layers compacted to 95% Mod AASHTO to density</u></b>				
6	Under floors, steps, pavings, etc	m3	235	
<b><u>Compaction of surfaces</u></b>				
7	Compaction of ground surface under combi court area including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compact to 93% modified AASHTO density	m2	806	
<b><u>Prescribed density tests on filling</u></b>				
8	"Modified AASHTO Density" test	No	15	
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>				
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>				
9	Poisoning surface of ground or filling under floors, steps, etc. including raking out 75mm deep V-shaped channels against the walls, etc. treating with poison solution, backfilling and ramming	m2	806	
<b>Carried to Collection</b>				
Section No. 12 Section 12: External Works Bill No. 12 Combi courts <b>REPAIRS &amp; RENOVATIONS</b>				R

<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>		
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>		
<b><u>10MPa/19mm Concrete in:</u></b>		
10	Blinding under footings and bases	m3 1
<b><u>25 MPa/19mm Concrete in:</u></b>		
11	Surface beds	m3 161
<b><u>TEST BLOCKS</u></b>		
12	Prepare set of three 150 x 150 x 150mm concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Representative/Agent. Only successful tests will be paid for	No 6
<b><u>CONCRETE SUNDRIES</u></b>		
<b><u>Finishing top surfaces of concrete smooth with a wood float</u></b>		
13	Surface beds, slabs, etc	m2 806
<b><u>REINFORCEMENT</u></b>		
<b><u>Fabric reinforcement</u></b>		
14	Mesh reinforcement with mesh reference number 289 laid in concrete surface beds, slabs, etc with 300mm wide side and end laps (measured net)	m2 806
<b><u>IRONMONGERY</u></b>		
<b><u>Standard sports nets including all fixing ropes, attachments, etc.</u></b>		
15	Netball net including fixing in position complete to netball ring (elsewhere)	No 4
<b>Carried to Collection</b>		
Section No. 12 Section 12: External Works Bill No. 12 Combi courts <b>REPAIRS &amp; RENOVATIONS</b>		R

16	Basketball net including fixing in position complete to basketball ring (elsewhere)	No	4
17	Volleyball net and handing over to the Representative or Agent	No	1
18	Tennis court net and handing over to the Representative or Agent	No	1

**METALWORK**

**HOT-DIPPED GALVANISED MILD STEEL**

NOTE The following are to be hot-dipped galvanised after fabrication of complete units

**Framed and welded hot-dipped double spelter galvanised mild steel poles, rings, etc. for sports equipment**

19	Support for basketball net (elsewhere) formed of 16mm diameter rod ring to 450mm internal diameter with 60 x 10mm flat section L-shaped arm 300mm girth and with two 10mm diameter rod supporting arms each 500mm girth twice bent and welded onto ring and onto and including 450 x 350 x 6mm flat section backing plate four times holed for bolts (elsewhere) including bolting unit in position complete to steel framework	No	2
20	Sleeve for removable pole formed of 102mm diameter x 2,5mm thick hollow section 700mm long with 140 x 140 x 10mm flat section flange with machine bevelled and scribed opening to suit sleeve diameter welded onto top end and with 250 x 250 x 6mm flat section base plate welded onto bottom end including setting up and embedding in position complete in concrete base (elsewhere)	No	6

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 Section 12: External Works  
 Bill No. 12  
 Combi courts  
**REPAIRS & RENOVATIONS**

21	Removable tennis pole formed of 89mm diameter x 4mm thick hollow section 1900mm long with top end welded closed with flat section, the pole once holed for and including net tension arm with eye formed of 16mm diameter threaded rod 450mm long complete with crank handle formed of 10mm diameter rod 350mm girth with threaded collar formed of 50 x 50 x 30mm flat section welded on and bolting onto tension arm; net straining eye formed of 8mm diameter rod welded onto pole including setting up unit in position complete in sleeve (elsewhere) and later removing and handing over to the Representative/Agent	No	2		
22	Removable netball pole formed of 89mm diameter x 4mm thick hollow section 3900mm long with mushroom cap welded onto top, the pole with and including support for netball net (elsewhere) formed of 16mm diameter rod ring to 380mm internal diameter with 16mm square section L-shaped arm 250mm girth welded onto pole and onto ring including setting up unit in position complete in sleeve (elsewhere) and later removing and handing over to the Representative/Agent	No	2		
23	Basketball pole formed of 127mm diameter x 4mm thick hollow section 3900mm long with mushroom cap welded onto top end and 250 x 250 x 6mm flat section base plate welded onto bottom end, the pole with and including support for netball net (elsewhere) formed of 16mm diameter rod ring to 380mm internal diameter with 16mm square section L-shaped arm 250mm girth welded onto pole and onto ring; L-shaped arm 2913mm girth formed of 102mm diameter x 2,8mm thick hollow section with one end welded onto pole and other end welded closed with 6mm flat section; stay formed of 102mm diameter x 2,8mm thick hollow section 1602mm long extreme with ends scribed and welded onto pole and arm; 1200 x 450 x 6mm flat section mounting plate eight times holed for bolts (elsewhere) and with three 450 x 60 x 6mm overall flat section flanges welded onto mounting plate and scribed as necessary and welded onto L-shaped arm including setting up unit and embedding in position complete in concrete base (elsewhere)	No	2		
<b>Carried to Collection</b>					R
Section No. 12 Section 12: External Works Bill No. 12 Combi courts <b>REPAIRS &amp; RENOVATIONS</b>					

24	Removable volleyball pole formed of 89mm diameter x 4mm thick hollow section 3300mm long with mushroom cap welded onto top, the pole with and including four net straining eyes formed of 8mm diameter rod welded onto pole including setting up unit in position complete in sleeve (elsewhere) and later removing and handing over to the Representative/Agent	No	2		
	<b><u>Framed and welded hot-dipped double spelter galvanised mild steel framing for two basketball backboards and fixing in position complete</u></b>				
25	Screw bolts with nuts and washers	kg	1		
26	25 x 25 x 1,8mm Hollow section framing holed for and bolted to 18mm thick timber backboard (elsewhere) with and including 6mm diameter galvanised gutter bolts at 400mm centres	m	17		
27	Extra for mitred and welded angle intersection	No	8		
28	Extra for welded T-intersection	No	16		
29	Hole through both 2,5mm thick walls of hollow section and 18mm thick timber backboard for 10mm diameter bolt (elsewhere)	No	16		
	<b><u>PAINTWORK</u></b>				
	<b><u>ON BITUMINOUS SURFACING</u></b>				
	<b><u>Prepare and apply two full coats solvent based road and runway marking paint (colour by Architect) including silica sand sprinkled on before the paint has set to form slip-free surface</u></b>				
30	Basketball court marking lines 56mm wide	m	287		
31	Netball court marking lines 56mm wide	m	122		
32	Basketball court marking lines 56mm wide set out circular	m	151		
33	Netball court marking lines 56mm wide set out circular	m	20		
	<b>Carried to Collection</b>				R
	Section No. 12 Section 12: External Works Bill No. 12 Combi courts <b>REPAIRS &amp; RENOVATIONS</b>				

**ON METAL**

**Prepare and apply one coat zinc phosphate alkyd resin primer, one coat universal undercoat and two full coats high gloss enamel paint**

34	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area) "LI"	m2	5
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**SURFACING OF BITUMINOUS PREMIX CARPET**

**Bituminous premix combi court surfacing**

35	Prime coat	m2	806
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36	25mm Thick continuously graded premixed bituminous surfacing	m2	806
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37	Final course bitumal slurry seal	m2	806
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**FENCING TO COMBI COURTS**

**IRONMONGERY**

**Bolts and latches**

38	200mm Galvanised heavy duty barrel bolt welded onto gate style	No	2
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**Locks**

39	63mm Brass five pin tumbler padlock with two keys	No	2
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**FENCING**

40	Fencing 1300mm high formed of 50mm mesh chain link netting of 2mm diameter galvanised mild steel wire strained and secured to top and bottom rails and posts at 3870mm centres (rails and posts elsewhere) with and including 2mm galvanised binding wire	m	10
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**REPAIRS & RENOVATIONS**

41	Fencing 3600mm high formed of two strands of 4mm thick galvanised mild steel straining wire mechanically strained between intermediate or gate and main posts at maximum 20m centres with one end passed through holes and securely tied to posts and other end securely tied to and including eye bolts bolted onto posts; each strand tied at maximum 4000mm centres to intermediate posts (elsewhere) with and including 2mm galvanised binding wire; the fence covered with and including 50mm mesh chain link netting of 2mm diameter galvanised mild steel wire strained and secured to top and bottom rails, posts and straining wires with and including 2mm galvanised binding wire	m	120
42	38,1mm Diameter x 2mm thick galvanised mild steel top or bottom rails	m	260
43	Extra for scribed and welded T-intersection with post	No	130
44	48,5mm Diameter x 3mm thick galvanised mild steel intermediate post 1400mm long with mushroom cap welded onto top and with 100 x 100 x 5mm galvanised mild steel base plate welded onto bottom end and four times holed for and bolted to top of wall with and including M10 x 95mm expansion bolts	No	2
45	48,5mm Diameter x 3mm thick galvanised mild steel gate post and top rail 4000mm girth with one mitred and welded intersection, one end welded to side of main post and with 100 x 100 x 5mm galvanised mild steel base plate welded onto bottom end including setting up post and embedding in position in concrete base (elsewhere)	No	2
46	48,5mm Diameter x 3mm thick galvanised mild steel intermediate post 4600mm long with mushroom cap welded onto top and with 100 x 100 x 5mm galvanised mild steel base plate welded onto bottom end including setting up post and embedding in position in concrete base (elsewhere)	No	30

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**REPAIRS & RENOVATIONS**

47 76,2mm Diameter x 4mm thick galvanised mild steel main post 4600mm long with mushroom cap welded onto top and with 100 x 100 x 5mm galvanised mild steel base plate welded onto bottom end including setting up post and embedding in position in concrete base (elsewhere)

No

8

**Galvanised mild steel gates**

48 Single pedestrian gate size 900 x 3000mm high formed of 50mm diameter x 2,8mm thick pipe framing all round complete with one 50mm diameter x 2,8mm thick pipe diagonal brace all neatly mitred and welded at intersections; the gate with two strands of 4mm thick galvanised mild steel straining wire mechanically strained between and securely fixed to gate styles and covered with and including 50mm mesh chain link netting of 3,15mm diameter galvanised mild steel wire securely fixed to straining wires and framing with and including 2mm galvanised binding wire, the one style fitted with and including two standard type pin and collar hinges bolted onto gate post (elsewhere) including drilling holes through gate post and other style prepared and drilled for barrel bolt (elsewhere) and hand-hole opening formed of 10mm diameter bar 320mm girth bent to semi-circular shape and welded on

No

2

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Section 12: External Works

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Section 12: External Works

Bill No. 12

Combi courts

**REPAIRS & RENOVATIONS**

Item No	<b><u>SECTION NO. 12</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 13</u></b>			
	<b><u>SOCCER FIELD, COMBI COURTS, ETC.</u></b>			
	<b><u>PREAMBLES</u></b>			
	For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b			
	<b><u>EARTHWORKS (PROVISIONAL)</u></b>			
	<b><u>Excavation in earth or compacted filling not exceeding 2m deep</u></b>			
1	Holes	m3	4	
	<b><u>Extra over excavations in earth for excavation in:</u></b>			
2	Soft rock	m3	1	
3	Hard rock	m3	1	
	<b><u>Extra over all excavations for carting away</u></b>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	2	
	<b><u>Risk of collapse of excavations</u></b>			
5	Sides of trench and hole excavations not exceeding 1,5mm deep	m2	2	
	<b><u>Keeping excavations free of water</u></b>			
6	Allow for keeping excavations free of all water other than subterranean water	Item		
	<b>Carried to Collection</b>			
	Section No. 12			
	Section 12: External Works			
	Bill No. 13			
	Soccer Field with Athletic Tracks (Provisional)			
	<b>REPAIRS &amp; RENOVATIONS</b>			
				R

<b><u>Filling, etc.</u></b>					
7	Imported top soil filling supplied by the Contractor, brought onto site and spread and levelled over sports field	m3	1,280		
<b><u>Compaction of surfaces</u></b>					
8	Compaction of ground surface under athletic tracks area including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compact to 95% modified AASHTO density	m2	3,190		
<b><u>Tests</u></b>					
9	Tests to determine the degree of compaction, etc. of ground or filling	No	5		
<b><u>Protection against termites</u></b>					
10	Poisoning surface of ground or filling under floors, steps, etc. including raking out 75mm deep V-shaped channels against the walls, etc. treating with poison solution, backfilling and ramming	m2	3,190		
<b><u>CONCRETE</u></b>					
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
<b><u>15MPa/19mm Concrete in:</u></b>					
11	Blinding under footings and bases	m3	1		
<b><u>25 MPa concrete</u></b>					
12	Bases	m3	1		
<b>Carried to Collection</b>					
Section No. 12 Section 12: External Works Bill No. 13 Soccer Field with Athletic Tracks (Provisional) <b>REPAIRS &amp; RENOVATIONS</b>				R	

**SUNDRIES**

**Standard sports nets including all fixing ropes, pegs, attachments, etc.**

13 Soccer goal post net to fit frame with front size 7,52 x 2,54m high with hexagonal 4mm PP nets and handing over to the Representative/Agent

No

2

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 Soccer Field with Athletic Tracks (Provisional)  
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Bill No. 13

Soccer Field with Athletic Tracks (Provisional)

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Soccer Field with Athletic Tracks (Provisional)

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 12</u></b></p>			
<p><b><u>BILL NO. 14</u></b></p>			
<p><b><u>BOUNDARY WALL</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 12 Section 12: External Works Bill No. 14 Boundary Wall <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	37
2	Holes	m3	3

**Extra over excavations in earth for excavation in:**

3	Soft rock	m3	4
4	Hard rock	m3	8

**Extra over all excavations for carting away**

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	17
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**Risk of collapse of excavations**

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	103
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**Keeping excavations free of water**

7	Keeping excavations free of water		Item
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 Section 12: External Works  
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 Boundary Wall  
**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>		
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>		
8	Backfilling to trenches, holes, etc	m3 22
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>		
<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>		
9	To bottoms and sides of trenches, etc	m2 138
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>		
<b><u>10MPa/19mm Concrete in:</u></b>		
10	Blinding under footings and bases	m3 2
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>		
<b><u>25 MPa Concrete in:</u></b>		
11	Strip footings	m3 9
12	Bases	m3 1
<b><u>TEST BLOCKS</u></b>		
13	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No 1
<b><u>FOUNDATIONS (PROVISIONAL)</u></b>		
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>		
14	One brickwalls	m2 29
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<b>REPAIRS &amp; RENOVATIONS</b>		

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15	Two brickwalls	m2	6
16	Piers	m3	1
<b><u>SUPERSTRUCTURE</u></b>			
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>			
17	Piers	m3	3
<b><u>Brickwork reinforcement</u></b>			
<b><u>FACE BRICKWORK</u></b>			
<b><u>Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.</u></b>			
18	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	690
19	Extra over brickwork for face brickwork	m2	11
20	One brick walls in stretcher bond pointed on both sides	m2	108
21	Two brick walls faced both sides	m2	32
<b><u>SIGNAGE</u></b>			
<b><u>Name board</u></b>			
22	Name board size 2500 x 2000mm complete with 75mm diameter steel tubes, 50mm diameter steel tube anchor, excavations, bases, cartaway, etc complete as per the drawing number PJN_ZA_2020_2003_DBSA_GPS_ARCH_Z2001_R00	No	1

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Section 12: External Works

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Boundary Wall

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Bill No. 14

Boundary Wall

**REPAIRS & RENOVATIONS**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO. 12</u></b></p>			
<p><b><u>BILL NO. 15</u></b></p>			
<p><b><u>WASH TROUGH</u></b></p>			
<p><b><u>PREAMBLES</u></b></p>			
<p>For preambles refer to Model Preambles for trades 2008 edition and specification of materials and methods to be used PW 371a and PW 371b</p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>Nature of ground</u></b></p>			
<p>A soils investigation has been carried out on site by the engineer and the report is annexed to these bills of quantities. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured.</p>			
<p><b><u>Carting away of excavated material</u></b></p>			
<p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p><b><u>Filling</u></b></p>			
<p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material</p>			
<p><b>Carried to Collection</b></p>			
<p>Section No. 12 Section 12: External Works Bill No. 15 Wash Trough <b>REPAIRS &amp; RENOVATIONS</b></p>		R	

**Excavations in conditions other than earth**

Should the contractor consider that the excavation at any point are in "soft rock" or "hard rock", he must notify the Representative / Agent immediately in order that an inspection may be made and a decision arrived at by the Representative / Agent as to the category of such excavation. Should the contractor fail to give such notification, the excavation shall be deemed to be in earth and shall be valued accordingly

**Subterranean water**

The information on subterranean water is included in the soils investigation report and can be viewed at the Engineer's offices.

**EXCAVATION, FILLING, ETC**

**Excavation in earth or compacted filling not exceeding 2m deep**

1	Trenches	m3	5
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**Extra over excavations in earth for excavation in:**

2	Soft rock	m3	1
3	Hard rock	m3	1

**Extra over all excavations for carting away**

4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	2
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**Risk of collapse of excavations**

5	Sides of trench and hole excavations not exceeding 1,5m deep	m2	14
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**Keeping excavations free of water**

6	Keeping excavations free of water		Item
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 Bill No. 15  
 Wash Trough  
**REPAIRS & RENOVATIONS**

<b><u>FILLING, ETC</u></b>					
	<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density</u></b>				
7	Backfilling to trenches, holes, etc	m3	1		
	<b><u>Earth filling of G5 material supplied by the contractor compacted in 150mm layers compacted to 91% Mod AASHTO to density</u></b>				
8	Backfilling to trenches, holes, etc	m3	1		
<b><u>SOIL POISONING AND PROTECTION AGAINST TERMITES</u></b>					
	<b><u>Soil insecticide under a 10 year guarantee by a firm of specialist</u></b>				
9	To bottoms and sides of trenches, etc	m2	19		
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
	<b><u>10MPa/19mm Concrete in:</u></b>				
10	Blinding under footings and bases	m3	1		
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
	<b><u>25 MPa Concrete in:</u></b>				
11	Strip footings	m3	1		
<b><u>TEST BLOCKS</u></b>					
12	Making and testing 150 x 150 x 150mm concrete strength test cube and submit report to the Representative / Agent (only successful tests will be paid for)	No	7		
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<b><u>FOUNDATIONS (PROVISIONAL)</u></b>			
<b><u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></b>			
13	One brickwalls	m2	5
<b><u>SUPERSTRUCTURE</u></b>			
<b><u>Brickwork in NFP clay bricks (7 Mpa nominal compressive strength) in Class II mortar</u></b>			
14	One brick walls	m2	10
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Brickwork reinforcement</u></b>			
15	150mm Wide reinforcement built into brick walls with sufficient laps at end joints, angles and intersections (measured net)	m	60
<b><u>FACE BRICKWORK</u></b>			
<b><u>Firelight Travertine FBX or equal approved pointed with recessed with recessed horizontal and vertical joints.</u></b>			
16	One brick wall faced both sides	m2	10
<b><u>EXTERNAL PLASTER</u></b>			
<b><u>Cement plaster on brickwork</u></b>			
17	On walls	m2	3
<b><u>WALL TILING</u></b>			
<b><u>Ceramic wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u></b>			
18	On walls	m2	3
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<b>REPAIRS &amp; RENOVATIONS</b>			

**SANITARY FITTINGS**

**"Vaal" or equal approved**

19	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with one tapholes supported on and incl. two bolts (code 84467Z0)	No	6
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**WASTE UNIONS, ETC**

20	32mm Basin waste union	No	6
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**Cobra Watertech or equal approved**

21	40mm Deep seal "P" or "S" trap	No	6
22	15mm CP angle regulating valve	No	6
23	15 x 350mm CP flexible connector	No	6
24	15mm Cobra or equal approved star basin tap	No	6
25	20mm Full way stop cock	No	2

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**REPAIRS & RENOVATIONS**

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Section 12: External Works

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Wash Trough

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Bill No. 15

Wash Trough

**REPAIRS & RENOVATIONS**

Section No. 12

Section 12: External Works

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Item No	<b><u>SECTION NO. 13</u></b>	Quantity	Rate	Amount
	<b><u>BILL NO. 1</u></b>			
	<b><u>PROVISIONAL SUMS</u></b>			
	<b><u>Community Liaison Officer</u></b>			
1	Provide the sum of R102 000,00 (One Hundred and Two Thousand Rands) for community liaison officer	Item		102,000.00
2	Add Profit upon above if required		%	
3	Attend upon above if required		%	
	<b><u>Project Steering Committee</u></b>			
4	Provide the sum of R43 200,00 (Forty Three Thousand Two Hundred Rands) for project steering committee	Item		43,200.00
5	Add Profit upon above if required		%	
6	Attend upon above if required		%	
	<b><u>Local Skills Transfer/Training</u></b>			
7	Provide the sum of R300 000,00 (Three Hundred Thousand Rands) for local skills transfer/training	Item		300,000.00
8	Add Profit upon above if required		%	
9	Attend upon above if required		%	
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	Provisional Sums			
	<b>REPAIRS &amp; RENOVATIONS</b>			
			R	

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1	Section 1: Preliminaries	48	
2	Section 2: Demolitions	53	
3	Section 3: 1 x 2 Classroom Block, 2 x 3 Classroom Block (A & B)	104	
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10	Section 10: Guard House	493	
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	SUB TOTAL		R
	<b><u>ANNEXURE B: ELECTRICAL INSTALLATION</u></b>		
	Electrical Installation (see separate document - Annexure B) (Value Added Tax Excluded)	Item	
	<b><u>ANNEXURE C: MECHANICAL INSTALLATION</u></b>		
	Mechanical Installation (see separate document - Annexure C) (Value Added Tax Excluded)	Item	
	SUB TOTAL		R
	<b>Carried Forward</b>		R
	<b>REPAIRS &amp; RENOVATIONS</b>		

