

**BILL OF QUANTITIES
FOR
THE CONSTRUCTION OF A NEW COMMUNITY HEALTH CARE CENTRE
DEPARTMENT OF HEALTH, NORTH WEST**

AUGUST 2022

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No	Quantity	Rate	Amount R
<p><u>SECTION NO. 1</u></p> <p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The JBCC Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described</p> <p>The JBCC Principal Building Agreement contract data form an integral part of this agreement</p> <p>The JBCC General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the JBCC Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these bills of quantities, amended as hereinafter described</p> <p>The contractor is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause</p> <p>The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only</p> <p>Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"</p> <p>Where standard clauses or alternatives are not entirely applicable to this agreement such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents</p> <p><u>PREAMBLES FOR TRADES</u></p> <p>The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained</p>			
<p>Carried Forward</p>			R
<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>			

	Brought Forward	R
<p>Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications</p> <p><u>STRUCTURE OF THIS PRELIMINARIES BILL</u></p> <p>Section A : A recital of the headings of the individual clauses in the aforementioned JBCC Principal Building Agreement</p> <p>Section B : A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries</p> <p>Section C : Any special clauses to meet the particular circumstances of the project</p> <p><u>PRICING OF PRELIMINARIES</u></p> <p>Should the contractor select Option A in the contract data for the adjustment of preliminaries, the amounts entered against the relevant items in these preliminaries are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)</p> <p><u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u></p> <p><u>Interpretation (A1-A7)</u></p> <p>1 Clause 1.0 - Definitions and interpretation</p> <p>Pricing of bills of quantities</p>		
	Carried Forward	R
<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

Brought Forward		R
<p>The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities</p> <p>Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained</p> <p>Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary</p> <p>Abbreviated descriptions</p> <p>The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practice</p> <p>Legal status of contractor</p> <p>If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:</p> <ol style="list-style-type: none"> 1. These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement 2. These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons 		
Carried Forward		R
Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

	Brought Forward		R
	<p>3. The contractor shall not alter its composition or legal status without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p>	Item	
2	<p>Clause 2.0 - Law, regulations and notices</p> <p>NHBRC levies</p> <p>The employer shall allow for and pay any levies required by the National Home Builders Registration Council (NHBRC). The contractor warrants that he is registered and will maintain registration with the NHBRC for the duration of this agreement [2.1] N/A</p> <p>F:..... V:..... T:.....</p>	Item	
3	<p>Clause 3.0 - Offer and acceptance</p> <p>F:..... V:..... T:.....</p>	Item	
4	<p>Clause 4.0 - Cession and assignment</p> <p>F:..... V:..... T:.....</p>	Item	
5	<p>Clause 5.0 - Documents</p> <p>Value Added Tax</p> <p>Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)</p> <p>Priced document as specification</p> <p>Clause 5.4 is deemed to be deleted</p> <p>The principal agent shall decide which portion of the priced document may be used as a specification of materials and goods or methods, if any.</p>		
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward		R
	<p>Electronic issue of drawings</p> <p>All drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.6]</p> <p style="text-align: right;">YES</p> <p>F:..... V:..... T:.....</p>	Item	
6	<p>Clause 6.0 - Employer's agents</p> <p>Delegated authority - Moditi Consulting Engineers</p> <p>Postal Address: P. O. Box 3964 The Reeds 0158</p> <p>Tel: (012) 661 3600</p> <p>Email: miyelani@moditi.co.za</p> <p>The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions: Yes</p> <p>1. <u>Architect</u></p> <p>ASL Architecture & Project Management</p> <p>Postal address: P O Box 3964 The Reeds 0158</p> <p>Tel: (018) 381 8719</p> <p>Email: asl.architects@gmail.com</p> <p>1.1 Duties [6.2] :</p> <p>The architect is responsible for the architectural design, functional design and quality inspection of the works</p>		
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward	R
1.2 Contract instructions [6.2; 17.1] :		
1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement		
1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works		
1.2.3 The site [13.0]		
1.2.4 Compliance with the law , regulations and bylaws [2.1]		
1.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works		
1.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
1.2.7 Removal or re-execution of work		
1.2.8 Removal or substitution of any materials and goods		
1.2.9 Protection of the works		
1.2.10 Making good physical loss and repairing damage to the works [23.2.2]		
1.2.11 Rectification of defects [21.2]		
1.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
	Carried Forward	R
Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

	Brought Forward	R
<p>2. <u>Quantity surveyor</u></p> <p>IDNIL Professional Consultants</p> <p>Postal address: P O Box 862 Illovo 2116</p> <p>Tel: (011)783 5454</p> <p>Email: thembile@idnil.co.za</p> <p>2.1 Duties [6.2] :</p> <p>The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works</p> <p>2.2 Contract instructions [6.2; 17.1] :</p> <p>2.2.1 No contract instructions delegated to the quantity surveyor</p> <p>3. <u>Civil and Structural Engineer</u></p> <p>Lumar Engineering Consultants</p> <p>Postal address: P. O Box 4605 Polokwane 0700</p> <p>Tel: (015) 291 1657</p> <p>Email: lukhelenimr@lumarconsulting.co.za</p> <p>3.1 Duties [6.2] :</p> <p>The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works</p> <p>3.2 Contract instructions [6.2; 17.1] :</p> <p>3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p>		
	Carried Forward	R
<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward	R
3.2.2	Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works	
3.2.3	The site [13.0]	
3.2.4	Compliance with the law , regulations and bylaws [2.1]	
3.2.5	Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works	
3.2.6	Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]	
3.2.7	Removal or re-execution of work	
3.2.8	Removal or substitution of any materials and goods	
3.2.9	Protection of the works	
3.2.10	Making good physical loss and repairing damage to the works [23.2.2]	
3.2.11	Rectification of defects [21.2]	
3.2.12	A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion	
4. <u>Mechanical Engineer</u>		
Moyahi & Associates		
Postal address:		
Office No1A, 2nd floor		
Libra house building		
14-18 George street		
Kimberley		
8301		
Tel: (053) 831 2635		
E-mail: simba@risimati.co.za		
	Carried Forward	R
Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

	Brought Forward	R
4.1 Duties [6.2] :		
The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions		
4.2 Contract instructions [6.2; 17.1] :		
4.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement		
4.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works		
4.2.3 Compliance with the law , regulations and bylaws [2.1]		
4.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works		
4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
4.2.6 Removal or re-execution of work		
4.2.7 Removal or substitution of any materials and goods		
4.2.8 Protection of the works		
4.2.9 Making good physical loss and repairing damage to the works [23.2.2]		
4.2.10 Rectification of defects [21.2]		
4.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
4.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums		
	Carried Forward	R
Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

	Brought Forward	R
<p>5. <u>Electrical engineer</u></p> <p>Moyahi & Associates</p> <p>Postal address: Office No1A, 2nd floor Libra house building 14-18 George street Kimberley 8301</p> <p>Tel: (053) 831 2635</p> <p>E-mail: lethu@risimati.co.za</p> <p>5.1 Duties [6.2] :</p> <p>The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p>5.2 Contract instructions [6.2; 17.1] :</p> <p>5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>5.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>5.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>5.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>5.2.6 Removal or re-execution of work</p> <p>5.2.7 Removal or substitution of any materials and goods</p>		
	Carried Forward	R
<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward	R
5.2.8 Protection of the works		
5.2.9 Making good physical loss and repairing damage to the works [23.2.2]		
5.2.10 Rectification of defects [21.2]		
5.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
5.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums		
7. Fire Engineer		
Moyahi & Associates		
Postal address: Office No1A, 2nd floor Libra house building 14-18 George street Kimberley 8301		
Tel: (053) 831 2635		
E-mail: simba@risimati.co.za		
7.1 Duties [6.2] :		
The fire consultant is responsible for all aspects of rational fire design and quality inspection of the works		
7.2 Contract instructions [6.2; 17.1] :		
7.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement		
7.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works		
	Carried Forward	R
Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

	Brought Forward		R
7.2.3	Compliance with the law , regulations and bylaws [2.1]		
7.2.4	Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works		
7.2.5	Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
7.2.6	Removal or re-execution of work		
7.2.7	Removal or substitution of any materials and goods		
7.2.8	Protection of the works		
7.2.9	Making good physical loss and repairing damage to the works [23.2.2]		
7.2.10	Rectification of defects [21.2]		
7.2.11	A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
8. <u>Health and Safety Consultant</u>			
Lerumo Consulting			
Postal Address: 24 Cleopatra Avenue Die Heuwel Witbank 1035			
Tel: (012) 661 3600			
Email: langi@lerumoconsulting.co.za			
		Carried Forward	R
Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries			

	Brought Forward		R
	8.1 Duties [6.2] :		
	The health and safety consultant is responsible for all aspects of health and safety of the works . Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works . He shall:		
	8.1.1 Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended		
	8.1.2 Prepare and update the health and safety specification for the works		
	8.1.3 Agree with the contractor the health and safety plan for the works		
	8.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations		
	8.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to		
	F:..... V:..... T:.....	Item	
7	Clause 7.0 - Design responsibility		
	F:..... V:..... T:.....	Item	
	<u>Insurances and securities (A8-A11)</u>		
8	Clause 8.0 - Works risk		
	F:..... V:..... T:.....	Item	
9	Clause 9.0 - Indemnities		
	F:..... V:..... T:.....	Item	
10	Clause 10.0 - Insurances		
	F:..... V:..... T:.....	Item	
11	Clause 11.0 - Securities		
	Carried Forward		R
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

	Brought Forward		R
	<p>Guarantee for payment</p> <p>The employer shall provide to the contractor a guarantee for payment in the amount ofRand (R.....) [11.5.1]. The contractor shall consequently waive his lien or right of continuing possession of the works [11.10]</p> <p style="text-align: right;">N/A</p>		
	<p>Extension of waiver of lien</p> <p>The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10]</p> <p style="text-align: right;">YES</p> <p>F:..... V:..... T:.....</p>	Item	
	<p>Execution (A12 - A17)</p>		
12	<p>Clause 12.0 - Obligations of the parties</p>		
	<p>Office accommodation</p> <p>The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]</p>		
	<p>Notice board</p> <p>The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]</p>		
	<p>Statutory and other notices</p>		
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward		R
	<p>The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the works by the contractor. The contractor shall pay all deposits or fees in this regard</p> <p>It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto</p> <p>F:..... V:..... T:.....</p>	Item	
13	<p>Clause 13.0 - Setting out</p> <p>F:..... V:..... T:.....</p>	Item	
14	<p>Clause 14.0 - Nominated subcontractors</p> <p>F:..... V:..... T:.....</p>	Item	
15	<p>Clause 15.0 - Selected subcontractors</p> <p>F:..... V:..... T:.....</p>	Item	
16	<p>Clause 16.0 - Direct contractors</p> <p>Attendance on direct contractors</p> <p>In respect of direct contractors the contractor shall:</p> <ol style="list-style-type: none"> 1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials 2. Allow the use of personnel welfare facilities, where provided 3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation 4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1] 		
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward		R
	F:..... V:..... T:.....	Item	
17	<p>Clause 17.0 - Contract instructions</p> <p>Site instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p>	Item	
	Completion (A18 - A24)		
18	Clause 18.0 - Interim completion	N/A	
19	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:..... T:.....</p>	Item	
20	<p>Clause 20.0 - Completion in sections</p> <p>F:..... V:..... T:.....</p>	Item	
21	<p>Clause 21.0 - Defects liability period and final completion</p> <p>F:..... V:..... T:.....</p>	Item	
22	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:..... T:.....</p>	Item	
23	<p>Clause 23.0 - Revision of the date for practical completion</p> <p>Substitution of materials and goods</p> <p>The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8; 23.1 & 2]</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward		R
24	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:..... T:.....</p> <p><u>0.05% of the Contract Amount per calendar day</u></p> <p><u>Payment (A25 - A27)</u></p>	Item	
25	<p>Clause 25.0 - Payment</p> <p>Prices submitted</p> <p>Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing</p> <p>F:..... V:..... T:.....</p>	Item	
26	<p>Clause 26.0 - Adjustment of the contract value and final account</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]</p> <p style="text-align: right;">Yes</p> <p>Tenant installation/user requirements delayed</p> <p>There is a possibility that certain works related to tenant installation/user requirements may have to be delayed and may consequently not be executed prior to practical completion</p> <p>Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries appurtenant to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works</p>		
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward		R
	<p>The employer reserves the right to omit such work without compensation to the contractor for loss of profit or any other loss which the contractor may suffer as a result of such omission</p> <p>Cost of claims</p> <p>All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this agreement [30.6 & 7] from making a determination on costs</p> <p>Claims from subcontractors</p> <p>The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]</p> <p>F:..... V:..... T:.....</p>	Item	
27	<p>Clause 27.0 - Recovery of expense and/or loss</p> <p>F:..... V:..... T:.....</p>	Item	
	<p><u>Suspension and termination (A28 - A29)</u></p>		
28	<p>Clause 28.0 - Suspension by the contractor</p> <p>F:..... V:..... T:.....</p>	Item	
29	<p>Clause 29.0 - Termination</p> <p>F:..... V:..... T:.....</p>	Item	
	<p><u>Dispute resolution (A30)</u></p>		
30	<p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:..... T:.....</p>	Item	
31	<p><u>Agreement</u></p>		
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward			R
	The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties			
	F:..... V:..... T:.....	Item		
32	<u>Contract data</u>			
	<i>Insert under the above heading, with suitable sub-headings, any amendments, modifications, corrections or supplements to the contract data</i>			
	Tenderer's selections			
	Before submission of his tender the contractor is to complete the tenderer's selections in the contract data			
	F:..... V:..... T:.....	Item		
	<u>SECTION B: GENERAL PRELIMINARIES</u>			
	<u>Definitions and interpretation (B1)</u>			
33	Clause 1.1 - Definitions			
	F:..... V:..... T:.....	Item		
34	Clause 1.2 - Interpretation			
	F:..... V:..... T:.....	Item		
	<u>Documents (B2)</u>			
35	Clause 2.1 - Checking of documents			
	F:..... V:..... T:.....	Item		
36	Clause 2.2 - Provisional bills of quantities			
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries			

	Brought Forward		R
	Multiple procurement		
	These bills of quantities are in multiple procurement format ie the "wet trades" - earthworks, concrete, formwork and reinforcement, precast concrete, masonry, waterproofing and sub-surface drainage - are provisionally measured and the subsequent trades are budgetary allowances and/or provisional sums		
	F:..... V:..... T:.....	Item	
37	Clause 2.3 - Availability of construction information		
	F:..... V:..... T:.....	Item	
38	Clause 2.4 - Ordering of materials and goods		
	F:..... V:..... T:.....	Item	
	<u>Previous work and adjoining properties (B3)</u>		
39	Clause 3.1 - Previous work - dimensional accuracy		
	F:..... V:..... T:.....	Item	
40	Clause 3.2 - Previous work - defects		
	F:..... V:..... T:.....	Item	
41	Clause 3.3 - Inspection of adjoining properties		
	F:..... V:..... T:.....	Item	
	<u>The site (B4)</u>		
42	Clause 4.1 - Handover of site in stages		
	F:..... V:..... T:.....	Item	
43	Clause 4.2 - Enclosure of the works		
	F:..... V:..... T:.....	Item	
44	Clause 4.3 - Geotechnical and other investigations		
	F:..... V:..... T:.....	Item	
	Carried Forward		R
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward			R
45	Clause 4.4 - Encroachments F:..... V:..... T:.....	Item		
46	Clause 4.5 - Existing premises occupied F:..... V:..... T:.....			
	No	Item		
47	Clause 4.6 - Services - known F:..... V:..... T:.....	Item		
	<u>Management of contract (B5)</u>			
48	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item		
49	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item		
50	Clause 5.3 - Technical meetings F:..... V:..... T:.....	Item		
	<u>Samples, shop drawings and manufacturer's instructions (B6)</u>			
51	Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item		
52	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item		
53	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item		
54	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R
	<u>Deposits and fees (B7)</u>		
55	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item	
	<u>Temporary services (B8)</u>		
56	Clause 8.1 - Water F:..... V:..... T:.....	Item	
57	Clause 8.2 - Electricity F:..... V:..... T:.....	Item	
58	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item	
59	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item	
	<u>Prime cost amounts (B9)</u>		
60	Clause 9.1 - Responsibility for prime cost amounts <i>Where details of materials for which prime cost amounts are to be allowed are readily available, the quantity surveyor may elect to insert the relevant prime cost amounts in measured items, which measured items shall contain sufficient detail for the contractor to price for fixing and installation, waste, etc</i> F:..... V:..... T:.....	Item	
	<u>Attendance on subcontractors (B10)</u>		
61	Clause 10.1 - General attendance <i>General attendance is defined as being the duties of the contractor in terms of clause 12.2 of the JBCC n/s subcontract agreement</i> F:..... V:..... T:.....	Item	
	Carried Forward		R
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

	Brought Forward		R
62	<p>Clause 10.2 - Special attendance</p> <p><i>It is important to note that general attendance only requires the contractor to "permit the subcontractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right while it remains erected on the site" (refer to 12.2.13 of the JBCC n/s subcontract agreement). Many n/s subcontractors qualify their tenders to exclude scaffolding and/or hoisting facilities. Especially scaffolding could be an expensive item and it may be necessary in order to avoid claims to require the contractor to provide for the extended use of scaffolding for specific subcontracts within a description of "special attendance" in the applicable bill</i></p> <p>F:..... V:..... T:.....</p> <p>General (B11)</p>	Item	
63	<p>Clause 11.1 - Protection of the works</p> <p>F:..... V:..... T:.....</p>	Item	
64	<p>Clause 11.2 - Protection/isolation of existing works and works occupied in sections</p> <p>F:..... V:..... T:.....</p>	Item	
65	<p>Clause 11.3 - Security of the works</p> <p>F:..... V:..... T:.....</p>	Item	
66	<p>Clause 11.4 - Notice before covering work</p> <p>F:..... V:..... T:.....</p>	Item	
67	<p>Clause 11.5 - Disturbance</p> <p><i>The following clause may be used should "disturbance" [11.5] need to be extended</i></p>		
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward		R
	<p>Disturbance</p> <p>All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever</p> <p>F:..... V:..... T:.....</p>	Item	
68	<p>Clause 11.6 - Environmental disturbance</p> <p>Controlling all forms of pollution</p> <p>The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc</p> <p>The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works</p> <p>Environmental management plan</p> <p>The employer has prepared an environmental management plan (EMP). The contractor shall price opposite this item for compliance with all the requirements of such EMP</p> <p>F:..... V:..... T:.....</p>	Item	
69	<p>Clause 11.7 - Works cleaning and clearing</p> <p>F:..... V:..... T:.....</p>	Item	
70	<p>Clause 11.8 - Vermin</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward		R
71	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item	
72	Clause 11.10 - Tenant installations F:..... V:..... T:.....	Item	
73	Clause 11.11 - Advertising F:..... V:..... T:.....	Item	
<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
74	Warranties for materials and workmanship Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer , from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so The warranty will not be enforced if the work is damaged by defects in the execution of the works , in which case the responsibility for replacement shall rest entirely with the contractor F:..... V:..... T:.....	Item	
75	Overtime Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries			

Brought Forward		R
76	<p>Cooperation of the contractor for cost management</p> <p>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 contract value does not exceed the budget</p> <p>F:..... V:..... T:.....</p>	Item
77	<p>Overloading</p> <p>The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense</p> <p>F:..... V:..... T:.....</p>	Item
78	<p>Propping of floors below</p> <p>The contractor is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor</p> <p>F:..... V:..... T:.....</p>	Item
79	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:..... T:.....</p>	Item
80	<p>Health and safety</p>	
Carried Forward		R
<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

Brought Forward		R
<p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specification [2.1]</p> <p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]</p> <p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification <p>F:..... V:..... T:.....</p>	Item	
Carried Forward		R
<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R
81	<p>Broad based black economic empowerment (BBBEE)</p> <p>Tenders submitted will be evaluated taking into account their empowerment rating</p> <p>The employer will be monitoring the broad based black economic empowerment (BBBEE) status of the contractor throughout the execution of the works</p> <p>The contractor is to submit to the principal agent on an annual basis a schedule of spend, split into vendors engaged as subcontractors and suppliers indicating their BBBEE rating including proof of the said rating</p> <p>F:..... V:..... T:.....</p>	Item	
82	<p>Advertising rights</p> <p>The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement</p> <p>F:..... V:..... T:.....</p>	Item	
83	<p>Confidentiality</p> <p>The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works</p> <p>No information regarding this project shall be published or disclosed without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

	Brought Forward			R
84	<p>Media releases</p> <p>All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer</p> <p>The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media</p> <p>F:..... V:..... T:.....</p> <p>SECTION C: SPECIFIC PRELIMINARIES</p> <p>Any special items to meet the particular circumstances of a specific project are embodied in this section. Where required for an aspect of the works to be executed according to a design by a consulting engineer, a recital of the headings to the individual clauses of the JBCC Engineering General Conditions are included</p>	Item		
85	<p>PROPRIETARY BRANDED PRODUCTS</p> <p>The contractor shall take delivery of, handle, store, use apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instruction after consultation with the manufacturer's authorised representative</p> <p>F:..... V:..... T:.....</p>	Item		
86	<p>OVERTIME</p> <p>Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the employer.</p> <p>F:..... V:..... T:.....</p>	Item		
87	<p>AS BUILT DRAWINGS</p> <p>The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records.</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward			R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>			

	Brought Forward		R
88	<p>SITE INSTRUCTIONS</p> <p>Site instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p>	Item	
89	<p><u>LABOUR DESK</u></p> <p>The contractor shall establish a labour desk on site with a dedicated office of maximum 9m2 with a desk 2 chairs and electricity. From the labour desk, the contractor will appoint a dedicated community liaison officer at a minimum monthly gross remuneration of R 7500.00, subject to all statutory deductions. The community liaison officer will be employed by and will report to the contractor, who will in turn forward such reports to the Principal Agent</p>	Item	
90	<p>LABOUR RECORD</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day.</p> <p>F:..... V:..... T:.....</p>	Item	
91	<p>PLANT RECORD</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works.</p> <p>F:..... V:..... T:.....</p>	Item	
92	<p>NON CESSION OF MONIES</p> <p>The contractor shall not cede nor assign his rights or claims to any monies due or to become due under this contract</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>			

	Brought Forward		R
93	<p>GENERAL SPECIFICATION</p> <p>The general specification for the works is the Model Preambles For Trades 1999 as published by the Association of Quantity Surveyors. Tenderers are to avail themselves of the full contract thereof and the document will be deemed to be part of the conditions of of tender and contract</p> <p>F:..... V:..... T:.....</p> <p><u>SECTION D: HEALTH & SAFETY PRELIMINARIES</u></p> <p>Total cost of "Health and Safety Measures"</p>		
94	Preparation of the contractor's site specific health and safety plan stipulated by the project SHE specification	Item	
95	Principal contractor's initial obligation in respect to the Occupational Health and Safety Act and Construction Regulations	Item	
96	Principal contractor's time related obligations in respect of Occupations Health and Safety Act and Construction Regulations	Item	
	<u>Provision of Personal Protective Equipment (PPE)</u>		
97	Reflective vests	Item	
98	Hard hats	Item	
99	Earplugs	Item	
100	Protective steel toed foot wear	Item	
101	Hand gloves	Item	
102	High visibility overalls to SARTSM chapter 13 level 3	Item	
103	Thermal jackets	Item	
104	Dust masks	Item	
105	Safety goggles	Item	
106	Gumboots	Item	
	Carried Forward		R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries</p>		

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R
107	Fall protective equipment	Item	
108	Provisional of full time construction health and safety officer (SACPCMP registered)	Item	
109	Health and safety representative	Item	
110	Health and safety file	Item	
	<u>Fire extinguishers</u>		
111	Dry powder	Item	
112	CO2	Item	
113	Spill kit	Item	
114	Chemical cage	Item	
115	Barricades	Item	
116	Blinq system	Item	
117	Waste bins	Item	
	<u>Environmental</u>		
118	Environmental monitoring	Item	
	<u>Signage</u>		
119	Signage	Item	
	<u>Training</u>		
120	Training - SHE representative	Item	
121	Training - First Aiders	Item	
122	Training - Fire fighting	Item	
123	Training - Scaffolding assembler	Item	
124	Training - Scaffolding inspector	Item	
	Carried Forward		R
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

		Brought Forward		R
125	Training HIV & AIDS awareness		Item	
126	Provision for OHS posters, booklets, etc		Item	
127	Provision for condoms and condom dispenser		Item	
	<u>Covid - 19 PPE</u>			
128	Signs, posters and phamphlets		Item	
129	Faceshields		Item	
130	Non contact infrared thermometers		Item	
131	Surface sanitisers		Item	
132	Surgical gloves		Item	
133	Napsack spray		Item	
134	FFP2 dust mask		Item	
135	Tissue paper towels		Item	
136	Catridge chemical respirator		Item	
137	2500Litre water tank		Item	
138	Foot operated sanitiser stand		Item	
139	Biohazardous waste costs		Item	
140	Sealable plastic bags		Item	
141	Disposal of biohazardous waste costs		Item	
	<u>Costs of medical certificates and medical survellaince</u>			
142	Hand sanitizers with 70% alcohol		Item	
143	Initial (Baseline) medical exeminations		Item	
144	Periodic and exit examinations		Item	
		Carried Forward		R
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

	Brought Forward		R
145	Contractor's charges to allow for handling costs and profit of sub items	Item	
146	Induction training	Item	
147	Provision of first aid boxes to GRS requirements	Item	
148	First aid refill kit	Item	
149	Emergency eye wash bottle	Item	
	<u>Noise monitoring</u>		
150	Establishment of noise zones (plant)	Item	
151	Audiograms (personnel)	Item	
152	Provision of isolation room for covid suspected cases on site during screening	Item	
153	Submission of health and safety file	Item	
154	Contractor health and safety close out report	Item	
	<u>SUMMARY OF CATEGORIES</u>		
	Category : Fixed R.....		
	Category : Value R.....		
	Category : Time R.....		
	Carried to Final Summary		
	Section No. 1 PRELIMINARIES Bill No. 1 Preliminaries		R

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 1</u>			
	<u>DEMOLITIONS</u>			
	<u>View site</u>			
	Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained			
	<u>Explosives</u>			
	No explosives whatsoever may be used for demolition purposes unless otherwise stated			
	<u>General</u>			
	Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent			
	Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site			
	<u>Demolishing and removing</u>			
1	Existing buildings	m ²	541	
2	Allow an amount of R100 000.00 (One Hundred Thousand Rands) for the removal and disposing of toxic and hazardous materials		Item	100 000.00
	Carried Forward to Summary of Section No.			
	Section No. 2 BUILDING WORKS Bill No. 1 Demolitions			R

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Item No	Unit	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>				
<u>BILL NO. 2</u>				
<u>EARTHWORKS (PROVISIONAL)</u>				
<u>Nature of ground</u>				
<p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock"</p> <p>Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p>				
<u>Subterranean water</u>				
<p>No subterranean water is expected</p> <p>The water table is expected to vary between approximately 2m and 3m below natural ground level. The removal of subterranean water is given separately</p>				
Carried Forward				R
<p>Section No. 2 BUILDING WORKS Bill No. 2 Earthworks (provisional)</p>				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>Carting away of excavated material</u>				
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				
<u>Filling and layer work materials</u>				
References such as "G1", "G2", etc and "C1", "C2", etc in descriptions of filling and layer work materials refer to corresponding references in the document "Guidelines for Road Construction Materials. TRH 14 : 1985" compiled by the Committee of State Road Authorities and the properties set out therein for each kind shall be applicable to the respective materials described hereinafter				
<u>Testing</u>				
<i>Prices for filling are to include for all necessary density and other tests</i>				
<u>SITE CLEARANCE</u>				
<u>Site clearance</u>				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m ²	7 641	
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m ²	7 641	
<u>EXCAVATIONS ETC</u>				
<u>Excavation in earth not exceeding 2m deep</u>				
3	Trenches	m ³	1 712	
4	Holes	m ³	253	
5	Trenches and holes for thickening under surface beds etc	m ³	5	
<u>Extra over bulk excavations in earth for excavation in</u>				
6	Soft rock	m ³	209	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 2 Earthworks (provisional)				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
7	Hard rock		m ³	101
<u>Extra over all excavations for carting away</u>				
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor		m ³	698
<u>Risk of collapse of excavations</u>				
9	Sides of bulk excavations not exceeding 1,5m deep		m ²	4 916
10	Sides of trench and hole excavations not exceeding 1,5m deep		m ²	1 223
<u>Keeping excavations free of water</u>				
11	Keeping excavations free of all water other than subterranean water		Item	
<u>FILLING ETC</u>				
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 95% Mod AASHTO density</u>				
12	Under floors, steps, pavings, etc		m ³	3 130
13	Backfilling to trenches, holes, etc		m ³	926
<u>Earth filling of G7 material supplied by the contractor, compacted to 95% Mod AASHTO density</u>				
14	Under floors, steps, pavings, etc		m ³	939
<u>Compaction of ground surfaces</u>				
15	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density		m ²	7 952
<u>WEED KILLERS, INSECTICIDES, ETC</u>				
<u>Soil insecticide in accordance with SANS 5859</u>				
16	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming		m ²	6 260
17	To bottoms and sides of trenches etc		m ²	6 397
Carried Forward to Summary of Section No.				R
Section No. 2 BUILDING WORKS Bill No. 2 Earthworks (provisional)				

Item No		Quantity	Rate	Amount R
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 3</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p> <p><u>Breeze concrete</u></p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><u>Formwork</u></p> <p>Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p> <p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself</p> <p>Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>			
	Carried Forward			R
	<p>Section No. 2 BUILDING WORKS Bill No. 3 Concrete, formwork and reinforcement</p>			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward		R
Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described		
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"		
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>		
<u>15MPa/19mm concrete</u>		
1	Surface blinding under footings and bases	m ³ 177
2	Surface blinding under surface beds	m ³ 313
<u>FOUNDATIONS</u>		
<u>REINFORCED CONCRETE</u>		
<u>30MPa/19mm concrete</u>		
3	Concrete wall	m ³ 6
4	Thickening	m ³ 5
5	Strip footings	m ³ 428
6	Bases	m ³ 63
<u>SUPERSTRUCTURE</u>		
<u>30MPa/19mm concrete</u>		
7	Surface beds on waterproofing	m ³ 569
8	Slabs including beams and inverted beams	m ³ 196
9	Ring beams	m ³ 66
Carried Forward		R
Section No. 2 BUILDING WORKS Bill No. 3 Concrete, formwork and reinforcement		

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
10	Ramps	m ³	10
11	Steps	m ³	1
12	Columns	m ³	7
<u>TEST CUBES</u>			
13	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	135
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float/steel trowel</u>			
14	Surface beds, slabs, etc	m ²	7 013
<u>15 MPa non-shrink grout</u>			
15	50mm Bedding of 1:2 cement/ sand grout under 200 x 200mm base pate including chamfered edges all round	No	306
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>			
<u>Smooth formwork to sides</u>			
16	Bases (Provisional)	m ²	306
17	Upstand beams	m ²	935
18	Columns	m ²	116
19	Walls	m ²	34
<u>Smooth formwork to soffits</u>			
20	Slabs exceeding 250mm and not exceeding 500mm thick propped up exceeding 1.5m and not exceeding 3.5m high	m ²	754
21	Beams propped up not exceeding 3,5m high	m ²	180
<u>MOVEMENT JOINTS ETC</u>			
Carried Forward			R
Section No. 2 BUILDING WORKS Bill No. 3 Concrete, formwork and reinforcement			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>Saw cut joints</u>				
22	50 x 3mm Saw cut joints in top of concrete	m	67	
<u>Expansion joints with bitumen impregnated softboard between concrete and brickwork</u>				
23	10mm Joints not exceeding 300mm high along edges of surface beds	m	2 616	
<u>REINFORCEMENT</u>				
<u>High tensile steel reinforcement to structural concrete work</u>				
24	Bars in various Diameters	t	76.69	
<u>Fabric reinforcement</u>				
25	Type 100 fabric reinforcement in concrete surface beds, slabs, etc	m ²	6 260	
26	Type 395 fabric reinforcement in concrete surface beds, slabs, etc	m ²	18	
Carried Forward to Summary of Section No.				R
Section No. 2 BUILDING WORKS Bill No. 3 Concrete, formwork and reinforcement				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 4</u></p> <p><u>PRECAST CONCRETE</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Sizes:</u></p> <p>Blocks, sills, etc measured linear shall be made in suitable lengths. Large size setting out drawings shall be prepared where necessary and submitted to the architect for approval before moulds are made</p> <p><u>General:</u></p> <p>Where kerbstones, blocks, etc are laid in ground descriptions shall be deemed to include necessary excavation, filling in and ramming</p> <p><u>"Winblok" modular precast concrete window surrounds etc finished smooth on exposed surfaces including bedding, jointing and pointing</u></p>			
1	500 x 500 Concrete breeze block	m ²	77	
	Carried Forward to Summary of Section No.			R
	Section No. 2 BUILDING WORKS Bill No. 4 Precast concrete			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 5</u>				
	<u>MASONRY</u>				
	<u>BRICKWORK</u>				
	<u>Sizes in descriptions</u>				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
	<u>Bagged and sealed walls</u>				
	Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating				
	<u>Face bricks</u>				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	<u>Pointing</u>				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	<u>BRICKWORK</u>				
	<u>FOUNDATIONS (PROVISIONAL)</u>				
	<u>Brickwork of NFP bricks in class II mortar</u>				
1	Half brick walls	m ²	132		
2	One brick walls	m ²	2 956		
	<u>FACE BRICKWORK</u>				
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 5 Masonry				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<p><u>Face brick: FBX "Corobrick" Firelight Satin or similar approved burnt clay face brick, manufacture in accordance with SANS 227:2007, bedded in (3:1) sand/cement mixture and joints pointed with square jointing tool in horizontal and vertical joints. (PC Amount R4 000.00/thousand VAT excl supplied and delivered to site)Note: All face brick shall be cleaned down as the work proceeds and shall be covered up with approved means. External facing shall be treated with an approved face brick sealant.</u></p>				
3	Extra over brickwork for face brickwork built in horizontally	m ²	531	
<p><u>2.5mm Brickwork reinforcement</u></p>				
4	75mm Wide reinforcement built in horizontally	m	518	
5	150mm Wide reinforcement built in horizontally	m	11 591	
<p><u>SUPERSTRUCTURE</u></p>				
<p><u>Brickwork of NFP bricks in class II mortar</u></p>				
6	Half brick walls	m ²	294	
7	One brick walls	m ²	7 256	
<p><u>2.5mm Brickwork reinforcement</u></p>				
8	75mm Wide reinforcement built in horizontally	m	576	
9	150mm Wide reinforcement built in horizontally	m	14 227	
<p><u>"Allied Concrete" prestressed fabricated lintels</u></p>				
10	110 x 70mm Lintels in lengths not exceeding 3m	m	399	
<p><u>Turning pieces to lintels etc</u></p>				
11	230mm Wide turning pieces	m	306	
<p><u>FACE BRICKWORK</u></p>				
Carried Forward				R
<p>Section No. 2 BUILDING WORKS Bill No. 5 Masonry</p>				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward			R
	<p><u>Face brick: FBX "Corobrick" Firelight Satin or similar approved burnt clay face brick, manufacture in accordance with SANS 227:2007, bedded in (3:1) sand/cement mixture and joints pointed with square jointing tool in horizontal and vertical joints. (PC Amount R4 000.00/thousand VAT excl supplied and delivered to site)Note: All face brick shall be cleaned down as the work proceeds and shall be covered up with approved means. External facing shall be treated with an approved face brick sealant.</u></p>			
12	Extra over brickwork for face brickwork	m ²	3 337	
13	Extra over brickwork for brick-on-edge header course lintel	m	339	
	<p><u>Brick-on-edge header course copings, sills, etc of face bricks, pointed with flush joints on all exposed faces</u></p>			
14	230mm Wide sills set sloping and slightly projecting	m	612	
15	230mm Wide sill set level and slightly projecting	m	306	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 2 BUILDING WORKS Bill No. 5 Masonry</p>			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 6</u>				
	<u>WATERPROOFING</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Waterproofing</u>				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
	<u>Gundle® API Brickgrip DPC 250µm damp proof course in solid walls conforming to SANS 952-1:2011 laid with minimum 150mm overlaps, or similar approved</u>				
1	In walls	m ²	1 253		
	<u>Gundle® API USB Green 170µm damp proof membrane under concrete surface beds conforming to SANS 952-1:2011 laid with minimum 150mm overlaps and sealed with Gunplas pressure sensitive tape, or similar approved</u>				
2	Under surface bed	m ²	6 260		
	<u>WATERPROOFING TO ROOFS ETC</u>				
	<u>Waterproofing to exposed concrete roofs with bituminous aluminium paint finish. Apply one coat a.b.e. bituprime to all surfaces including all verges and around outlets and protrusions. Apply one layer of a.b.e. 4mm abegum dual reinforced waterproofing membrane, fully bonded by means of "torch on fusion", with 75mm side laps and 100mm end laps. Flashing strip 150mm girth at turn-ups using a.b.e. super laykold. Apply one coat of a.b.e. silvakote bituminous aluminium protective coating, all in accordance with manufacturer's recommendations.</u>				
3	On shower floors	m ²	13		
4	On flat roofs	m ²	754		
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 6 Waterproofing				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 7</u>				
	<u>ROOF COVERINGS, CLADDINGS, ETC</u>				
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>				
	<u>"Safintra" 0.5mm Saflock 700 galvanised corrugated steel sheets or similar approved fixed to steel purlins</u>				
1	Roof covering with pitches not exceeding 25 degrees	m ²	3 567		
	<u>"Safintra" 0.5mm AZ150 Classicorr corrugated sheets or similar approved fixed to steel purlins</u>				
2	Roof covering with pitches not exceeding 25 degrees	m ²	1 896		
	<u>ROOF AND WALL INSULATION</u>				
	<u>"Safintra" Safftherm polyester blanket or similar approved 50mm high density 32-36kg/m³ rigid extruded polystyrene 100% closed cell insulation panels laid between purlins and tie under roof sheeting in accordance to manufacture specifications</u>				
3	40mm Thick insulation fibre blanket fixed onto Safftherm 203ECO double sided reflective aluminium foil radiant barrier (measured separately)	m ²	3 567		
	Carried Forward to Summary of Section No.				R
	Section No. 2 BUILDING WORKS Bill No. 7 Roof coverings, claddings, etc				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 8</u>				
	<u>CARPENTRY AND JOINERY</u>				
	<u>Fixing</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere				
	<u>Decorative thermosetting plastic laminate covering</u>				
	Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish				
	<u>ROOFS ETC</u>				
	<u>Sawn softwood</u>				
1	38 x 114mm Wall plates	m	797		
	<u>Sundries</u>				
2	Two coats creosote on sawn timbers	m ²	367		
	<u>Sawn softwood</u>				
3	Complete roof construction for staff housing complete with trusses, jack rafters, permanent bracing and 50 x 77mm purlins/battens (PC amount R126 000.00 Vat excl. supplied, delivered and installed to site by specialists)	No	1		
	<u>EAVES, VERGES, ETC</u>				
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 8 Carpentry and joinery				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<u>"Everite FC77" pressed fibre-cement</u>				
4	Everite medium density plain ungrooved Nutec fascia boards, size 225 x 12mm thick, fixed to timber rafters twice screwed with 12 x 40mm countersunk brass screws with Chromaprep H-profile fascia joiner between boards, or similar approved	m	1 165	
5	Soffit board on eaves overhang	m ²	452	
<u>DOORS ETC</u>				
<u>44mm Solid core hardwood door with fixed louvre shutters "louvre meranti door (code LOU813)" or similar approved</u>				
6	Door size 877 x 2100mm high (D2)	No	12	
<u>44mm Solid core masonite door with hardwood edge coverstrips on both sides. CODE 10 security type door</u>				
7	Door size 877 x 2100mm high (D3,19)	No	12	
<u>44mm Solid core masonite door with hardwood edge coverstrips on both sides</u>				
8	Door size 750 x 2100mm high (D31)	No	16	
9	Door size 877 x 2100mm high (D25,26,29,30,32,33)	No	23	
10	Door size 877 x 2400mm high (D11,15)	No	57	
11	Door size 877 x 2400mm high (D21,22,23,28)	No	27	
12	Door size 877 x 2100mm high (D34,35)	No	12	
13	Door size 1200 x 2100mm high (D27)	No	3	
14	Door size 1500 x 2100mm high (D17)	No	1	
<u>44mm Solid core masonite flush 2 panel symetric door with hardwood edge coverstrips on both sides and rebated meeting stiles</u>				
15	Double door size 1500 x 2400mm high with standard fan light (D9,10,12,14)	No	16	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 8 Carpentry and joinery				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward			R
	<u>44mm Solid meranti framed and ledged timber panel door</u>			
16	Double door size 1500 x 2100mm high with rebated with flush meeting stiles with aluminium louvres (D16)	No	1	
	<u>'Hillaldam"Resuscitation room sliding "Hygenic topp"door or similar approved</u>			
17	Double door size 1500 x 2400mm high (D14)	No	2	
	Carried Forward to Summary of Section No.			R
	Section No. 2 BUILDING WORKS Bill No. 8 Carpentry and joinery			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 9</u>				
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Descriptions:</u>				
	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 have been given elsewhere				
	<u>CEILINGS ETC</u>				
	<u>SUSPENDED CEILINGS</u>				
	<u>12.5mm BPB Gyprex white vinyl finish ceiling boards size 600 x 600mm suspended in open T-grid system comprising of T38 main tee with T25 cross tee between each tiles including hold-down clips, etc all suspended with 4mm diameter galvanised rods, or similar approved</u>				
1	Ceilings suspended not exceeding 1m below steel trusses	m ²	696		
	<u>12.5mm BPB Gyprex white vinyl finish ceiling boards size 1200 x 600mm suspended in open T-grid system comprising of T38 main tee with T25 cross tee between each tiles including hold-down clips, etc all suspended with 4mm diameter galvanised rods, or similar approved</u>				
2	Ceilings suspended not exceeding 1m below steel trusses	m ²	617		
	<u>AMF TOPIQ Prime Hygena white 1200 x 600mm ceiling panels in Donn T38 exposed T-suspended ceiling system, horizontally exposed at 2720mm AFFL sloping, or similar approved</u>				
3	Ceilings suspended not exceeding 1m below steel trusses	m ²	695		
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 9 Ceilings, partitions and access flooring				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward			R
	<u>AMF Thermatex acoustic hygena white 1200x600mm ceiling panels in Donn T38 exposed T-suspended ceiling system horizontally installed at ceiling height</u>			
4	Ceilings suspended not exceeding 1m below steel trusses	m ²	204	
	<u>NAILED UP CEILINGS</u>			
	<u>6mm thick "Everite Nutec" fibre-cement boards with aluminium "epoxy coated" H-type pressed steel jointing strips</u>			
5	Ceilings	m ²	881	
6	Extra over ceiling for 500 x 500 mm trap door	No	5	
	<u>"Everite Nutec" cornices</u>			
7	75mm Coved cornices	m	717	
	Carried Forward to Summary of Section No.			R
	Section No. 2 BUILDING WORKS Bill No. 9 Ceilings, partitions and access flooring			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 10</u>				
	<u>FLOOR COVERINGS, WALL LININGS, ETC</u>				
	<u>Fixing</u>				
	Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc				
	<u>FLOOR COVERINGS</u>				
	<u>Polyflor Type XL Pu 2mm thick vinyl sheeting to be applied as per manufacturers specification (Assorted colours), or similar approved</u>				
1	On floors	m ²	2 547		
	<u>WALL LININGS</u>				
	<u>Polyflor Type XL Pu 1,5mm thick vinyl wall sheeting to be applied as per manufacturers specification, or similar approved</u>				
2	On walls	m ²	1 749		
	<u>POLISH, SEALERS, ETC</u>				
3	Polish on vinyl flooring	m ²	2 169		
	Carried Forward to Summary of Section No.				R
	Section No. 2 BUILDING WORKS Bill No. 10 Floor coverings, wall linings, etc				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Item No	Unit	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>				
<u>BILL NO. 11</u>				
<u>IRONMONGERY</u>				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Descriptions</u>				
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Proprietary items</u>				
Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items				
Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered				
On request returnable samples are to be provided to the principal agent for consideration				
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 11 Ironmongery				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<u>Finishes to ironmongery</u>				
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:				
BS Satin bronze lacquered				
CH Chromium plated				
SC Satin chromium plated				
SE Silver enamelled				
GE Grey enamelled				
AN Anodised natural				
AS Anodised silver				
AB Anodised bronze				
AG Anodised gold				
ABL Anodised black				
PB Polished brass				
PL Polished and lacquered				
PT Epoxy coated				
SD Sanded				
<u>HINGES, BOLTS, ETC</u>				
<u>"Dorma"</u>				
1	Brass hinge with nylon washers	No	54	
2	100mm Brass hinge	No	396	
<u>LOCKS</u>				
<u>"Dorma"</u>				
3	35mm Narrow stile deadlock (Stainless Steel) code: D02735SS	No	163	
4	35mm Bracket narrow stile sashlock (Stainless Steel) code: D02635 SS	No	161	
5	Adjustable roller bolt (Stainless Steel) code: DBC-SS-022	No	85	
6	66mm Ten pin euro-profile single cylinder master keyed (Satin Nickel) code: DDC104301MK	No	97	
7	66mm Ten pin euro-profile double cylinder master keyed (Satin Nickel) code: DDC106601MK	No	15	
8	43mm Ten pin euro-profile single cylinder master keyed (Satin Nickel) code: DSC104301MK	No	14	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 11 Ironmongery				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
9	Round cylinder escutcheon (Stainless steel) code: DCE-002	No	3	
10	Narrow stile cylinder escutcheon (Stainless Steel)	No	15	
11	Flushbolt on passive door	No	22	
12	150 X 20mm Flushbolt to inactive leaf (code: ALA20AS)	No	17	
13	153mm Flush bolt with heel (Satin chrome) code: DFBSC-180	No	17	
14	305mm Flush bolt with heel (SS finish) code: DFB-SC-181	No	21	
15	Dust proof strike (Stainless steel) code: DPS-SS-032	No	17	
16	Bathroom deadlock (Stainless steel) code: D032D SS	No	18	
17	Bathroom deadlock (Stainless steel) code: DMWC- SS-008	No	23	
18	Bathroom WC indicator bolt (Red & White) and turnknob code: DWC-SS-005	No	23	
19	Disabled WC indicator bolt (Red & White) and turnknob code: DWC-SS-006	No	18	
20	Cylinder deadlock code: D036S-SS	No	11	
21	Cylinder sashlock code: D036S-SS	No	97	
22	Rebate kit (Nickel plated) code: 038R NP	No	20	
23	150 x 32mm Heavy duty barrel bolt (Satin chrome) code: BHD 150	No	5	
24	150 x 32mm Heavy duty necked bolt (Satin chrome) code: NBHD 150	No	5	
25	Securam ProLogic L22 EntryPad and Proofing pan 2Hour with polished chrome finish code EL0601 swing bolt lock body with programmed 1-15min time delay and system override	No	4	
26	PHA3/S three point locking bar with component (2101, 2104, 2201, PHX02, PHX04)	No	2	
<u>HANDLES</u>				
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 11 Ironmongery				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<u>"Dorma" or equal approved</u>				
27	Brushed stainless steel Pull handle DPH301C on 150 x 300 x 1.2mm plate code: DHP-SS-BL with Male/Female fixing screws	No	104	
28	Brushed stainless steel back to back pull handle DPH301A BTB on 75 x 170 x 1.2mm plate code: DHP-SS-BL with Male/Female fixing screws	No	23	
29	Non-locking push button catch with (Satin Chrome) code: CZ51741SC and 75mm bolt to door	No	6	
30	325 x 25mm Stainless Steel Straight tubular pull handle flange fixing code: DPH301B	Pairs	27	
31	Exterior access lock with lever handle (cylinder not included) code PHT3901	No	2	
32	382 x 32mm Stainless Steel Straight D-shaped tubular pull handle BTB code: DPH215 BTB	Pairs	13	
33	149 x 19mm Stainless Steel Straight tubular pull handle BTB code: DPH301C BT	Pairs	3	
34	Lever handles on 170 x 170 plate with cylinder cutout (Stainless steel) code: TH120/BP Cyl SS	Sets	115.0	
35	Automated magnetic lock activated with biometrics sensor access installed according to manufacturers recommendations	No	18	
36	Electromagnetic access lock with manual override for emergency situation. With hygienic or automated hand and feet sanitation. With automated facial recognition thermo-sensor for temperature reading to manufacturer's recommendation	No	4	
<u>PUSH PLATES AND KICKING PLATES</u>				
<u>"Dorma" or equally approved</u>				
37	813mm long x 200mm high x 1,2mm thick stainless steel kick plate code:DKP-SS-200	No	88	
38	813mm long x 200mm high x 1,6mm thick stainless steel kick plate code:DKP-SS-165	No	84	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 11 Ironmongery				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
39	100mm high x 1,6mm thick stainless steel kick / strecher plate on either side with dust cover	No	35	
40	170 x 170 x 1,2mm Push plate cylinder code: DPP-SS-CL	No	30	
41	Dust proof strike stainless steel (code: DPS-SS-032)	No	30	
42	Hold open double action floor spring	No	30	
<u>DOOR CLOSERS</u>				
<u>"Dorma" or equally approved</u>				
43	Floor mounted door stop (Nikel Plated) code: DDS-SS-018	No	242	
44	TS73V EN 2-4 Parallel Arm delayed action door closer including TS73V PA DC parallel arm brackets	No	35	
45	TS93B EMF hydrolic speed control and delayed action door closer	No	22	
46	TS91B EN 3 Cam action silver slide channel NON HOLD open door closer-hydraulic speed control	No	29	
<u>BATHROOM FITTINGS</u>				
<u>"Franke"</u>				
47	"Franke" Stratos STRX 600 or similar approved 1,2/1,5mm thick grade 304 18/10 satin stainless steel paper towel dispenser size 305 x 300 x 134mm high, plugged and screwed to the wall with stainless steel screws.	No	148	
48	"Franke" Stratos STRX 605 or similar approved 1,2/1,5mm thick grade 304 18/10 satin stainless steel waste disposal bins, size 300 x 270 x 520mm high, plugged and screwed to the wall with stainless steel screws.	No	148	
49	"Franke" Stratos STRX 615 or similar approved 1,2/1,5mm thick grade 304 18/10 satin stainless steel sanitary bag dispenser, size 250 x 156 x 90mm high, plugged and screwed to the wall with stainless steel screws.	No	26	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 11 Ironmongery				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward				R
50	"Franke" stratos STRX 618 or simialr approved 1,2/1,5mm thick grade 304 18/10 satin stainless steel soap dispenser, size 304 x 100 x 134mm deep with a replacement and refillable 1 litre container, cylinder lock with standard Franke key, plugged and screwed to the wall with stainless steel screws.	No	148	
51	"Franke" stratos STRX 611 or similar approved 1,2/1,5mm thick grade 304 18/10 satin stainless steel recessed sanitary towel disposal bins, size 232 x 135 x 331mm deep, plugged and screwed to the wall with staineless steel screws	No	26	
52	"Franke" stratos STRX 671 or similar approved 1,2/1,5mm thick grade 304 18/10 satin stainless steel toilet roll holders, size 305 x 156 x 141mm deep for 2 rolls maximum 108mm diameter with spindle system and cylinder lock with standard Franke key, plugged and screwed to the wall with staineless steel screws	No	41	
53	"Franke" FIRMUS soap tray (code: FIRX107HP)	No	11	
54	PD037 Dispenser PPE Large for Gloves, Masks and Aprons PD037	No	22	
55	Retractable wall mounted bench	No	11	
56	Franke" CNTX 600 32mm diameter Grade 304 18/10 stainless steel grab rails (code: 359872), size 600mm x 95mm deep with Franke Fine Grip surface, plugged and screwed to the wall with stainless steel screws.	No	18	
57	"Franke" CNTX 700 A 32mm diameter Grade 304 18/10 stainless steel angle bars (code: 359877), size 256 x 618 x 95mm deep with Franke Fine Grip surface, plugged and screwed to the wall with stainless steel screws.	No	16	
<u>LETTERS, NAMEPLATES, ETC</u>				
<u>"Solid"</u>				
58	Anodised aluminium plate with male or female symbol	No	23	
59	Anodised aluminium plate with paraplegic symbol	No	16	
<u>SUNDRIES</u>				
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 11 Ironmongery				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R	
	<u>BUDGETARY ALLOWANCE</u>			
70	Allow an amount of R 100 000.00 (One Hundred Thousand Rands) for ironmongery not clearly defined, to be measured and priced in accordance with this Bill of Quantities and omitted in part or whole as instructed by Principal Agent	Item		100 000.00
	Carried Forward to Summary of Section No.		R	
	Section No. 2 BUILDING WORKS Bill No. 11 Ironmongery			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 12</u>				
	<u>STRUCTURAL STEELWORK</u>				
	<u>Descriptions</u>				
	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				
	<u>STEEL COLUMNS AND BEAMS</u>				
	<u>GALVANISED STEEL COLUMNS AND BEAMS</u>				
	<u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>				
1	100 x 55mm x 8kg/m IPE 100 -section columns	t	6.08		
	<u>Welded beams in single lengths with flat bearer and connection plates, bolted to steel</u>				
2	100 x 55mm x 8kg/m IPE 100 -section beams	t	9.06		
3	200 x 100mm x 22kg/m IPE 200 -section beams	t	6.91		
4	100 x 50mm x 2.5kg/m pergola	t	2.89		
5	254 x 146mm x 43kg/m I -section beams	t	2.81		
	<u>STEEL TRUSSES</u>				
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 12 Structural steelwork				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<u>Welded roof trusses of rectangular hollow section rafters, tie beams, rails, struts, braces, cleats, etc and flat bearer, gusset and connection plates, bolted to steel</u>				
6	1 (No) Monopitched trusses 6910 x 583m high extreme. (Truss No.1)	t	0.12	
7	2 (No) Monopitched trusses 9065 x 826m high extreme. (Truss No.2)	t	0.35	
8	1 (No) Monopitched trusses 9065 x 785m high extreme. (Truss No.2a)	t	0.18	
9	1 (No) Monopitched trusses 7270 x 660m high extreme. (Truss No.2a)	t	2.15	
10	6 (No) Double pitched trusses 12661 x 826m high extreme. (Truss No.3)	t	1.72	
11	1 (No) Monopitched trusses 4686 x 745m high extreme. (Truss No.3-a)	t	0.12	
12	4 (No) Double pitched trusses 12220 x 806m high extreme (Truss No.3-b)	t	1.08	
13	8 (No) Double pitched trusses 14127 x 806m high extreme (Truss No.3-c)	t	2.26	
14	2 (No) Double pitched trusses 14740 x 806m high extreme (Truss No.3-d)	t	0.55	
15	2 (No) Monopitched trusses 12661 x 826m high extreme (Truss No.4)	t	0.42	
16	5 (No) Double pitched trusses 12478 x 826m high extreme (Truss No.5)	t	0.51	
17	4 (No) Monopitched trusses 8962 x 386m high extreme (Truss No.5-b)	t	0.35	
18	1 (No) Monopitched trusses 7712 x 557m high extreme (Truss No.5-c)	t	0.15	
19	1 (No) Monopitched trusses 6005 x 448m high extreme (Truss No.5-d)	t	0.11	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 12 Structural steelwork				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
20	1 (No) Double pitched trusses 19121 x 826m high extreme (Truss No.6)	t	0.40	
21	4 (No) Monopitched trusses 5781 x 517m high extreme (Truss No.7)	t	2.46	
22	2 (No) Double pitched trusses 14262 x 517m high extreme (Truss No.8)	t	0.53	
23	2 (No) Monopitched trusses 2918 x 510mm high extreme (Truss No.8-a)	t	0.09	
24	1 (No) Monopitched trusses 8938 x 774mm high extreme (Truss No.10)	t	0.19	
25	2 (No) Monopitched trusses 7448 x 600mm high extreme (Truss No.10-a)	t	0.30	
26	4 (No) Monopitched trusses 4765 x 621mm high extreme (Truss No.11-a)	t	0.41	
27	4 (No) Monopitched trusses 6175 x 805mm high extreme (Truss No.11)	t	2.55	
28	3 (No) Double pitched trusses 8725 x 386m high extreme (Truss No.11-b)	t	2.46	
29	1 (No) Monopitched trusses 5077 x 386m high extreme (Truss No.11-d)	t	0.17	
30	1 (No) Monopitched trusses 4451 x 386m high extreme (Truss No.11-e)	t	0.09	
31	2 (No) Monopitched trusses 4687 x 604m high extreme (Truss No.12)	t	0.11	
32	2 (No) Monopitched trusses 9518 x 826m high extreme (Truss No.13)	t	0.27	
33	4 (No) Double pitched trusses 13200 x 823m high extreme (Truss No.14)	t	1.15	
34	1 (No) Monopitched trusses 5695 x 669mm high extreme (Truss No.15)	t	0.12	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 12 Structural steelwork				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
35	1 (No) Monopitched trusses 6738 x 826mm high extreme (Truss No.17)	t	0.15	
36	1 (No) Monopitched trusses 3754 x 488m high extreme (Truss No.18)	t	0.25	
37	2 (No) Monopitched trusses 4510 x 488m high extreme (Truss No.19)	t	0.19	
<u>STEEL PURLINS, GIRTS, BRACING, ETC</u>				
<u>Purlins and girts, bolted to steel</u>				
38	100 x 50 x 20 x 3mm CF Lipped channel	t	11.53	
39	Bottom tie 80 x 80 x 6 L	t	3.83	
40	Roof bracing 70 x 70 x 6 L	t	3.32	
41	Roof bracing 50 x 50 x 5 L	t	0.52	
42	20mm Flat section base plate	kg	88	
<u>BOLTS, FASTENERS, ETC</u>				
<u>Bolts to columns, beams, etc</u>				
43	M12 chemical anchor	No	1 120	
Carried Forward to Summary of Section No.				R
Section No. 2 BUILDING WORKS Bill No. 12 Structural steelwork				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No	Unit	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>				
<u>BILL NO. 14</u>				
<u>METALWORK</u>				
<u>Descriptions of bolts, anchors, etc</u>				
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				
Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres				
<u>Aluminium doors, windows, etc</u>				
Doors and windows shall comply with AAAMSA design criteria				
Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed				
Tenderers are referred to architect's drawings annexed to this document for full details of windows, doors, etc				
The following certificates shall be provided prior to commencement of site work:				
1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product				
2 A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively				
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 13 Metalwork				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
3	A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process			
4	A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked			
5	A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years			
<u>STEEL HANDRAILS, BALUSTRADES, ETC</u>				
1	42mm Hollow section continuous rails	m	54	
<u>STEEL FLOORS</u>				
2	350 x 150 x 6mm mild steel plated neaty bolted to top of concrete slab as per manufacturer's recommendations	m ²	54	
<u>WELDED SCREENS, GATES, ETC</u>				
<u>Security gates to steel door frames</u>				
3	Mild steel swing gate 900 x 2100mm high with fixed panel of 5mm galvanised iron mesh (D40)	No	2	
4	Mild steel swing gate 1050 x 2000mm high with fixed panel of 5mm galvanised iron mesh (D41)	No	1	
5	Mild steel double swing gate 2500 x 2100mm high with fixed louvred panels(D45)	No	3	
6	Mild steel double swing gate 1350 x 2100mm high with fixed louvred panels(D45-1)	No	2	
7	Mild steel double swivel panel gate 2000 x 2100mm high purpose made painted M.S tube dia 50mm frame with 5mm G.I mesh infill (D48)	No	1	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 13 Metalwork				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward				R
8	Mild steel double swing gate 1500 x 1360mm high with fixed louvred panels(D46)	No	1	
9	Mild steel security screen gate 877 x 2100mm high (D18)	No	1	
10	Galvanised steel purpose made iMat"3 3 arm full height turnstile with bi-directional security 1500 x 2005mm high, and option for electronic access control or similar approved.(DR42)	No	4	
11	Screens/buglar bars	m ²	236	
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1.2mm Double rebated frames suitable for half brick walls</u>				
12	Frame for door 750 x 2100mm high	No	19	
13	Frame for door 877 x 2400mm high	No	7	
<u>1.2mm Double rebated frames suitable for one brick walls</u>				
14	Frame for door 877 x 2100mm high	No	59	
15	Frame for door 877 x 2400mm high	No	77	
16	Frame for double door 1500 x 2100mm high	No	2	
17	Frame for double door 1500 x 2400mm high	No	18	
<u>STEEL ROLLER SHUTTERS ETC</u>				
<u>Automated roller shutters fixed to brickwork or concrete</u>				
18	Purpose made punched (eyeball) steel range roller shutter size 4000 x 4000mm (DR 7)	No	1	
19	Purpose made punched (eyeball) steel range roller shutter size 3000 x 2100mm (DR 8)	No	1	
20	Purpose made punched steel range roller shutter size 1000 x 1350mm (DR 43)	No	4	
<u>NATURAL ANODISED ALUMINIUM LOUVRE UNITS</u>				
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 13 Metalwork				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<u>Louvre panels screwed into aluminium frame</u>				
21	Louvre unit for 2400 x 300mm high opening including 6.38mm thick laminated clear safety glass (W28)	No	28	
22	Louvre unit for 2400 x 400mm high opening including 6.38mm thick laminated clear safety glass (W29)	No	4	
<u>ALUMINIUM WINDOWS, DOORS, ETC</u>				
Note: Tenderers are referred to architect's drawings numbered A600 annexed to these bill of quantities/ accompanying these bills of quantities for tender purposes				
<u>Natural anodised aluminium windows glazed with 6.38mm thick laminated clear toughened glass fitted in all panes with glazing putty and plugged to brickwork or concrete. With intercom or audio enhancer installation to Architect's approval</u>				
23	Purpose made aluminium window size 1692 x 1350mm high (W2)	No	2	
24	Purpose made aluminium window size 1423 x 1350mm high (W3)	No	1	
25	Purpose made aluminium window size 1423 x 1200mm high (W4)	No	2	
26	Purpose made aluminium window size 1200 x 1200mm high (W5)	No	1	
27	Purpose made aluminium window size 1725 x 1350mm high (W6)	No	1	
28	Purpose made aluminium window size 1925 x 1350mm high (W8)	No	1	
29	Purpose made aluminium window size 1666 x 1200mm high (W9)	No	3	
30	Purpose made aluminium window size 1335 x 1200mm high (W10)	No	1	
31	Purpose made aluminium window size 1771 x 1200mm high (W11)	No	1	
32	Purpose made aluminium window size 870 x 1200mm high (W12)	No	2	
33	Purpose made aluminium window size 740 x 1200mm high (W12A)	No	1	
34	Purpose made aluminium window size 2240 x 1200mm high (W13)	No	1	
35	Purpose made aluminium window size 2135 x 1200mm high (W14)	No	3	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 13 Metalwork				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<u>Natural anodised aluminium windows glazed with 6.38mm thick laminated clear toughened glass fitted in all panes with glazing putty and plugged to brickwork or concrete. With polycarbonate bar burglar proofing to Architect's approval</u>				
36	Purpose made aluminium window size 1800 x 1200mm high (W16)	No	62	
37	Purpose made aluminium window size 1800 x 600mm high (W17)	No	1	
38	Purpose made aluminium window size 2000 x 1500mm high (W18)	No	3	
39	Purpose made aluminium window size 1500 x 1200mm high (W19)	No	3	
40	Purpose made aluminium window size 2185 x 1500mm high (W20)	No	3	
41	Purpose made aluminium window size 1200 x 1200mm high (W21)	No	1	
42	Purpose made aluminium window size 2000 x 1200mm high (W22)	No	4	
43	Purpose made aluminium window size 1800 x 600mm high (W25)	No	8	
44	Purpose made aluminium window size 1200 x 600mm high (W26)	No	1	
45	Purpose made aluminium window size 1800 x 2100mm high (W27)	No	1	
46	Purpose made aluminium window size 1200 x 1200mm high (W30)	No	1	
47	Purpose made aluminium window size 900 x 1200mm high (W31)	No	1	
48	Purpose made aluminium window size 2155 x 1200mm high (W32)	No	3	
49	Purpose made aluminium window size 2155 x 900mm high (W33)	No	1	
50	Purpose made aluminium window size 2380 x 2100mm high (W34)	No	2	
<u>Natural anodised aluminium windows glazed with 6.38mm thick laminated obscure safety glass fitted in all panes with glazing putty and plugged to brickwork or concrete. With polycarbonate bar burglar proofing to Architect's approval</u>				
51	Purpose made aluminium window size 600 x 750mm high (W15)	No	49	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 13 Metalwork				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
<u>Natural anodised purpose made aluminium doors, sidelights and fanlights with 8mm LOW Eclear laminated safety glass, as per smartglass intruderprufe with clip-on glazing beads and neoprene gasket seals as per manufacturer or similar approved plugged to brickwork or concrete</u>				
52	Purpose made aluminium single door size 877 x 2100mm high (D20)	No	6	
53	Purpose made aluminium single door size 900 x 2100mm high (D37)	No	3	
54	Purpose made aluminium double swing door size 2300 x 2465mm high with kick plate (D1)	No	1	
55	Purpose made aluminium double swing door size 1500 x 2400mm high with kick plate (D4)	No	3	
56	Purpose made aluminium double swing door size 1500 x 2465mm high with kick plate (D4E)	No	2	
57	Purpose made aluminium double swing door size 1500 x 2400mm high with kick plate (D5)	No	1	
58	Purpose made aluminium double swing door size 1500 x 2465mm high with kick plate (D6)	No	3	
59	Purpose made aluminium double swing door size 1500 x 2100mm high with kick plate (D6S)	No	1	
60	Purpose made aluminium double swing door size 1500 x 2400mm high with kick plate (D6-1)	No	1	
<u>"Hilaldam" aluminium door</u>				
61	"Hilaldam" stackaway top hung sliding stacking door size 8000 x 2720mm high (DF39)	No	1	
<u>STEEL STRONGROOM DOORS, VENTILATORS, ETC</u>				
<u>"ChubbSAFE" Category 1 Strongroom doors etc suitable for 230mm walls fixed to concrete</u>				
62	Category 1 strongroom door and frame 850 x 1935mm high (D38, 47)	No	4	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 13 Metalwork				

	Brought Forward						
	<p><u>ALUMINIUM FRAMED AND UNFRAMED SHOWER CUBICLE PANELS AND DOORS ETC</u></p> <p><u>Aluminium framed shower cubicle panels and doors with frames, sliding gear, pivot hinges, cleats, stops, etc and toughened clear safety glass, plugged to tiled walls and sealed with silicone sealant</u></p>					R	
63	Pivot door 900 x 1800mm high	No	11				
	Carried Forward to Summary of Section No.					R	
	Section No. 2 BUILDING WORKS Bill No. 13 Metalwork						

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 15</u>				
	<u>PLASTERING</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Plastering of concrete soffits</u>				
	The plasterer should make sure that the surface to be plastered does not deviate from the required plane by more than 10mm. All high areas should be removed by hacking or cutting. Fill low areas by applying undercoats of plaster not exceeding 15m in thickness, apply one coat plaster to surface, leave to stiffen, strike off with a striker board, and wood float to an even surface and to a thickness of 10 - 15mm thick.				
	<u>SCREEDS</u>				
	<u>3:1 Cement plaster screeds wood floated on concrete</u>				
1	30mm thick screed on floors and landings	m ²	6 057		
2	Average 30mm thick on floors to falls	m ²	754		
	<u>GRANOLITHIC</u>				
	<u>Untinted granolithic on concrete</u>				
3	50-30mm Thick on floors and landings	m ²	444		
	<u>INTERNAL PLASTER</u>				
	<u>One coat cement plaster and once coat rhinolite plaster</u>				
4	On walls	m ²	18 101		
5	On narrow widths	m ²	346		
	<u>One coat cement plaster and once coat rhinolite plaster</u>				
6	On ceilings	m ²	754		
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 14 Plastering				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward								
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>								R
7	Aluminium edge strips	m	232						
8	3 x 32mm Flat section brass dividing strips between different floor finishes	m	35						
9	"Polyflor "Dual rail wall guard or similar approved	m	344						
10	"Polyflor " corner guard 1.25m high or similar approved	m	80						
11	"Mexiflex"heavy duty truck guides or similar approved	No	4						
12	"Mexiflex"2 x docking heavy duty truck D-types bumpers or similar approved	No	4						
	Carried Forward to Summary of Section No.								R
	Section No. 2 BUILDING WORKS Bill No. 14 Plastering								

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 16</u>				
	<u>TILING</u>				
	<u>WALL TILING</u>				
	<u>200 x 200 x 4,7mm thick "Johnson" glazed ceramic wall tiles or similar approved, (PC R350/m2 VAT incl. delivered to site), fixed with approved tie adhesive and fill joints with "Ivory 328t" or similar approved epoxy grouting, colour to architect</u>				
1	On walls	m ²	1 581		
2	On narrow widths, etc.	m ²	30		
	<u>FLOOR TILING</u>				
	<u>Grade 1 acid resisting, slip resistant porcelain tile or similar approved, (PC R550.00/m2 VAT excl. delivered to site) bedded to a true and even surface in 3:1 cement mortar and with joints not exceeding 8mm wide fixed with TAL floor grout and layed at 90-degree angle as per detail drawings. All vertical exposed edges to be finished off with Kirk marketing type M-trim aluminium square edge trims - size to suite thickness of tile (B1)</u>				
3	On floors	m ²	711		
4	Skirting of 100mm high cut tile	m	920		
	<u>47 x 47 x 6mm Thick grade 1 acid resisting, slip resistant porcelain mosaic tile on 300 x 300 sheets or similar approved, (PC R250/m2 incl. VAT delivered on site) bedded to a true and even surface in 3:1 cement mortar and with joints not exceeding 8mm wide fixed with TAL floor grout and layed at 90-degree angle as per detail drawings (B2)</u>				
5	On floors	m ²	13		
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 15 Tiling				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No	Unit	Quantity	Rate	Amount R
<u>SECTION NO 2</u>				
<u>BILL NO. 16</u>				
<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>				
<u>Wire gratings</u>				
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings				
<u>Stormwater channels</u>				
Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site				
<u>French drains</u>				
Descriptions of french drains shall be deemed to include excavation, stone filling graded from 300mm diameter at bottom to 75mm diameter at top, geofabric filter blanket over stone, 300mm earthfilling over and disposal of surplus material on site				
<u>Septic tanks</u>				
Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site				
<u>Stainless steel basins, sinks, wash troughs, urinals, etc</u>				
Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0)				
Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8)				
Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8)				
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable				
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage				

<p style="text-align: right;">Brought Forward</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p> <p><u>PVC-U pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>PVC-U pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U loose sockets and fittings</p> <p>Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be PVC-U and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with compression fittings</p> <p><u>Polypropylene pipes</u></p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings</p> <p>Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p style="text-align: right;">Carried Forward</p>					<p>R</p>
<p>Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage</p>					<p>R</p>

<p style="text-align: right;">Brought Forward</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016</p> <p>Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion</p>			R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage</p>			R	

<p style="text-align: right;">Brought Forward</p> <p><u>"Densyl" petrolatum anti-corrosion tape</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with 15mm overlaps</p> <p>Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant section of SANS 2001</p> <p><u>General</u></p> <p>Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately)</p> <p>Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends</p> <p>Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 90% Mod AASHTO density and disposal of surplus material on site</p> <p>Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)</p> <p>Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)</p>				<p>R</p>
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage</p>				<p>R</p>

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>As-built drawings</u>				
Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere)				
<u>RAINWATER DISPOSAL</u>				
<u>Galvanised sheet iron</u>				
1	150 x 150mm Eaves gutters	m	797	
2	100 x 75mm Rainwater pipes	m	196	
3	Extra over rainwater pipe for bend	No	132	
4	Extra over rainwater pipe for shoe	No	66	
<u>SANITARY FITTINGS ETC</u>				
<u>"Vaal" or similar approved</u>				
5	Vaal Sanitaryware Hibiscus vitreous china basin colour White (Code: 7050), size 510 x 405mm with two taphole, no chainstay hole. Bolted to wall with two 10mm bolts (Code: 8448Z0) and sealed with silicone sealant where basin meets wall.	No	21	
6	Vaal Sanitaryware Sola Medical 610 ceramic vitreous china hospital basin colour White (code: 703800), size 610 x 400mm bolted to wall with two 10mm bolts (code: 8448Z0) and sealed with silicone sealant where basin meets wall.	No	69	
7	Vaal Sanitaryware Hibiscus vitreous china close coupled suite colour White, comprising 90° outlet open rim pan (Code: 772654) with matching 6/3 litre top dual flush cistern (Code: 772656) including lid and fitments and Jazz Thermoset seat (code: 8531Z0).	No	25	
8	Vaal sanitary ware vitreous china "Pearl Paraplegic" semi close couple 90° outlet open rim washdown pan and matching 9 litre cistern complete with lid, fitments and purpose made C.P side-flush lever (left or right) supplied with purpose made urea seat and cover (code:7300SC)	No	16	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
9	Vaal Sanitaryware 600 x 385 x 380mm Lavatera white vitreous china wall mounted top inlet urinal (code: 705427) including 38mm chromium plated domical grating (code: 8787) and chromium plated top inlet spreader spreader (code: 7042Z0), flush valve (by others - Recommended: Cobra FJ6000) and flush pipe (by others - Recommended: Cobra FJT5.5), fixed on and including two hanger brackets (code: 8127Z0)(urinal division).	No	4	
10	Vaal Sanitaryware Hibiscus 510 x 405mm white china rounded basin with two tapholes, intergarated overflow (product code: 7050)	No	16	
<u>"Franke" or similar approved</u>				
11	"Franke" model PLN611 or similar approved Grade 304 18/10 polished stainless steel single end bowl insert sink (code: 821047), overall size 800 x 460mm wide with one 340 x 370 x 150mm deep bowl, fitted onto cupboard (elsewhere measured) and including sealing all round sink with sealicone sealent	No	29	
12	Franke Model WB001 Wash Hand Basin, 520 x 432 , one piece pressed, manufactured from Grade 18/10 stainless steel without splashback and tiling key	No	1	
13	Franke Model LDL Drop-on Washtrough 600 x 500 x 257mm. Unit to be manufactured from Grade 304 (18/10) Stainless Steel, 0,9mm gauge. Unit to include a pressed bowl 525 x 425 x 257mm deep (43 litres) with a 40mm waste outlet. Unit to be fixed to the wall with a pair of galvanised mild steel Falcon Brackets (brackets optional, please specify).	No	6	
<u>WASTE UNIONS ETC</u>				
<u>"Cobra Watertech" or similar approved</u>				
14	Cobra Watertech 32mm chrome plated slotted basin waste union (no chain or stay) (Code: 303)	No	37	
15	Cobra Watertech 32mm chrome plated unslotted basin waste union (no chain or stay) (Code: 308)	No	69	
16	Cobra Watertech 32mm chrome plated unslotted sink waste union (no chain or stay) (Code: 316)	No	6	
17	Cobra Watertech 32mm chrome plated anti-theft plug (Code: 309-32).	No	37	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
18	Cobra Watertech 32mm chrome plated anti-theft plug (Code: 309-40).	No	35	
19	"Cobra Ref. 316" bath or sink waste with 70mm diameter flange, 45mm long shank, backnut, plug and chain	No	30	
		<u>TRAPS ETC</u>		
		<u>"Marley" or similar approved</u>		
20	40 x 300mm Sink combination for single bowl with deepseal "P" trap	No	29	
21	uPVC anti-vac bottle trap (code: DB20A/V)	No	142	
		<u>"Cobra Watertech" or similar approved</u>		
22	Cobra Watertech 40mm chrome plated deep seal bottle trap with outlet for 50mm PVC (Code: 345/50).	No	4	
23	Cobra Watertech 40mm rough brass shower P trap (Code: 373SQ) with shallow seal and chrome plated square grating.	No	11	
		<u>"PolyDrains" Shower drains/channel or similar approved</u>		
24	Polyflor Grade 304 stainless steel shower drain SD1v (SO 50) round with 50mm side outlet and fat trap, fitted with a special nylon holding clamp to secure Polyfloor vinyl sheeting (code 403234)	No	11	
		<u>SANITARY PLUMBING</u>		
		<u>SANITARY PLUMBING</u>		
		<u>uPVC, soil and vent pipes</u>		
25	50mm Pipes encased on concrete below floor slab	m	196	
26	110mm Pipes	m	136	
		<u>Extra over uPVC, soil and vent pipes for fittings</u>		
27	110mm Access bend	No	41	
28	110mm Pan connector	No	41	
		Carried Forward		R
Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
29	110mm Access junction	No	41	
30	110mm Junction	No	41	
31	110mm Access bend with anti-syphon horn	No	41	
32	110mm Access double junction	No	41	
33	110mm Air vent cowl	No	41	
34	110mm GI vent valve	No	41	
<u>SOIL DRAINAGE</u>				
<u>uPVC gulleys</u>				
35	110mm Gully not exceeding 750mm deep with standard concrete gully surround	No	66	
<u>TAPS, VALVES, ETC</u>				
<u>"Cobra Watertech"</u>				
36	Cobra Watertech Noka 15mm chrome plated basin mixer with cast fixed outlet, pop-up waste, mounting kit and angle valves (code: NA-952) and and water saving aerator (code: P-WS/6)	No	27	
37	Cobra Watertech Medical mixer (code: 515/055H-21) wall mounted and water saving aerator (code: P-WS/6); chrome plated 15mm Elbow action wall type with 1/4 turn ceramic disk head parts, bent inlet connections at 178mm fixed centres, wall flanges and swan nek outlet (code: S-044)	No	94	
38	Cobra Watertech 15mm chrome plated wall mounted medical mixer (Code: 505-21B) pillar taps (hot & cold) square pattern elbow action with 1/4 ceramic disk head part and blue for cold water applications and flanged backnut and water saving aerator (code: WS/6) , and angle regulating valves	No	17	
39	Cobra Watertech Carina 15mm chrome wall mounted sink mixer with overarm swivel outlet, adjustable wall flanges and exposed connections (Code: 166/041CA and S-041).	No	4	
		Carried Forward		R
Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward				R
40	Cobra Watertech chrome plated 15mm outlet x 215mm long with 27mm offset urinal connection pipe and head (Code: FJT5.4).	No	4	
41	Cobra Watertech chrome plated junior flashmaster (code: J6000)	No	4	
42	Cobra Watertech Stella Bright 15mm undertile shower set consisting of FI x FI undertile stoptaps, shower arm with sliding wall flange and Pretex shower head with ball joint connection in Chrome	No	11	
43	1 x 832/350F Angle regulating valve including 350mm flexi hose	No	319	
<u>ELECTRIC WATER HEATERS</u>				
<u>"Kwikot"</u>				
44	Kwikot 200 Litre Superline 600 Dual electric water heater (Code : DSG-200-5) complying with SABS 151-2002, overall size 990 x 480mm high, operating at 400kPa with temperature and pressure safety relief valve including 20mm female draincock with inlet compression. Geysers to be installed horizontally in roof space with 1160 x 560mm wide polyethylene drip tray with union and back nut connected to 20mm PVC overflow pipe taken out at eaves (Code : GSTP-1200) and 15mm pipe work including two 15mm vacuum breakers (Code : KHN4.150CX) installed on hot and cold water supply. Installation to include a 15mm 400kPa Kwikot Mono control and expansion relief valve (Code : KHN3.104), all in accordance with SANS 10254, connected to single phase electrical power supply with isolator 1m away from connection on geysers.	No	6	
<u>TESTING</u>				
45	Provide all necessary water, etc., for and test the whole of the plumbing services, sanitary fittings, pumps, etc., and in stages as deemed necessary, including chlorination, complete to the satisfaction of the architect and the local authority, replace any defective work free of charge, including any necessary re-testing and leave in perfect condition upon completion		Item	
46	Allow for testing and commissioning the whole of the plumbing services, sanitary fittings, pumps, etc., including any necessary re-setting, etc., for optimal performance of the entire system to duration of the contract, maintenance and guarantee period		Item	
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R	
	<u>AS-BUILT DRAWINGS</u>			
47	Allow for an updated set of as-built drawings to be handed to the architect at completion of the contract	Item		
	<u>BUDGETARY ALLOWANCE</u>			
48	Allow an amount of R 150 000.00 (One Hundred and Fifty Thousand Rands) for any unforeseen plumbing and drainage, to be measured and priced in accordance with this Bill of Quantities and omitted in part or whole as instructed by Principal Agent	Item		150 000.00
	Carried Forward to Summary of Section No.		R	
	Section No. 2 BUILDING WORKS Bill No. 16 Plumbing and drainage			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 17</u>				
	<u>GLAZING</u>				
	<u>MIRRORS, ETC</u>				
	<u>"Franke"</u>				
1	Franke M 600 HD 13mm Grade 304 18/10 stainless steel mirrors (code: 359922), size 500 x 600 x 13mm deep, concealed thief resistant fixings, plugged and screwed to the wall with stainless steel screws, or similar approved	No	142		
2	500 x 500 Glass block	m ²	39		
	Carried Forward to Summary of Section No.				R
	Section No. 2 BUILDING WORKS Bill No. 17 Glazing				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Unit	Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 18</u>				
	<u>PAINTWORK</u>				
	<u>ON FLOATED PLASTER</u>				
	<u>Apply one coat Plascon Merit Plaster Primer, two coats Plascon Double Velvet Pure Acrylic paint or similar approved to interior walls, columns, etc. Colour: "Mushroom (Y1-D2-2)"</u>				
1	On internal walls	m ²	15 052		
	<u>ON SMOOTH CONCRETE</u>				
	<u>Prepare ares with slash coat and apply one coat universal undercoat and two coats Plascon Acrylic White</u>				
2	On soffits	m ²	754		
	<u>ON FIBRE-CEMENT</u>				
	<u>Prepare surfaces, apply Earthcote Alkali resisting primer diluted 20% with turpentine. Apply two coats Peinture, applied at 3m2 per litre per coat all as per manufacturer's specifications and application instructions</u>				
3	On fascias and barge boards	m ²	1 231		
	<u>One coat undercoat with Universal undercoat and two coats Plascon "Polvin White"</u>				
4	On ceilings and cornices	m ²	881		
	<u>ON METAL</u>				
	<u>One coat Universal undercoat and two coats Plascon "Valvagio" colour Battleship Grey G13</u>				
5	On door frames	m ²	229		
6	On gates	m ²	575		
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 18 Paintwork				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Item No	Unit	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>				
<u>BILL NO. 19</u>				
<u>PROVISIONAL SUMS</u>				
<u>General</u>				
Work for which budgetary allowances are provided will be measured and valued in accordance with the relevant building agreement, building contract and deducted in whole or in part if not required without any compensation for loss of profit on the said allowances				
Prime cost amounts and provisional sums are net. Prime cost amounts shall include for delivery to site of all articles concerned				
Provisional sums are for material and equipment supplied and installed complete by firms of specialists				
<u>Profit</u>				
Where stated, the contractor may allow for profit if required				
<u>General attendance on nominated/selected subcontractors</u>				
The item "attendance" which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors the contractor's duties as described in clause 12.2 of the JBCC N/S Subcontract Agreement				
<u>Special attendance on nominated/selected subcontractors</u>				
Where "special attendance" such as unloading, storing, placing in position, providing special power supplies, specific hoisting, crane and scaffolding requirements, provision of temporary casing and/or other specific protection of the works, special security and clearing away rubbish is required, a separate item describing the specific requirements in detail is to be provided for the pricing of such requirements				
Carried Forward				R
Section No. 2 BUILDING WORKS Bill No. 19 Provisional sums				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

				R
	Brought Forward			
	<u>Builder's work</u>			
	Builder's work in connection with specialist services is given elsewhere in these bills of quantities			
	<u>BUDGETARY ALLOWANCES</u>			
	<u>PROVISIONAL SUMS FOR NOMINATED/SELECTED SUBCONTRACT WORKS</u>			
	<u>EXPANDED PUBLIC WORKS PROGRAMME (EPWP)</u>			
1	Provide the sum of R 1 700,000.00 (One Million, Seven Hundred Thousand Rands) for the Expanded Public Works Programme, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item		1 700 000.00
2	Profit		%	
3	Attendance		%	
	<u>KITCHEN CUPBOARDS</u>			
4	Provide the sum of R 600,000.00 (Six Hundred Thousand Rands) for the supply and installation of Kitchen Cupboards complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item		600 000.00
5	Profit		%	
6	Attendance		%	
	<u>BUILT-IN CUPBOARDS</u>			
7	Provide the sum of R 400,000.00 (Four Hundred Thousand Rands) for the supply and installation of Built-in Cupboards complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item		400 000.00
8	Profit		%	
9	Attendance		%	
	Carried Forward			R
	Section No. 2 BUILDING WORKS Bill No. 19 Provisional sums			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward				R
	<u>COUNTERS</u>				
10	Provide the sum of R 60,000.00 (Sixty Thousand Rands) for the supply and installation of Counters complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item			60 000.00
11	Profit		%		
12	Attendance		%		
	<u>VANITY TOPS</u>				
13	Provide the sum of R 50,000.00 (Fifty Thousand Rands) for the supply and installation of Caesarstone counter tops complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item			50 000.00
14	Profit		%		
15	Attendance		%		
	<u>SHELVES</u>				
16	Provide the sum of R 60,000.00 (Sixty Thousand Rands) for the supply and installation of metal Shelves complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item			60 000.00
17	Profit		%		
18	Attendance		%		
	<u>STAINLESS STEEL SEATING</u>				
19	Provide the sum of R 625,000.00 (Six Hundred and Twenty Five Thousand Rands) for the supply and installation of Perforated Stainless Steel Seating and custom made stainless steel benches complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item			625 000.00
20	Profit		%		
	Carried Forward				R
	Section No. 2 BUILDING WORKS Bill No. 19 Provisional sums				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

	Brought Forward			R	
21	Attendance			%	
	<u>LANDSCAPING</u>				
22	Provide the sum of R 625,000.00 (Six Hundred and Twenty Five Thousand Rands) for the supply and installation of landscaping, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item			625 000.00
23	Profit			%	
24	Attendance			%	
	<u>SIGNAGE</u>				
25	Provide the sum of R 500,000.00 (Five Hundred Thousand Rands) for the supply and installation of internal and external signage complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item			500 000.00
26	Profit			%	
27	Attendance			%	
	<u>VERTICAL BLINDS</u>				
28	Provide the sum of R 200,000.00 (Two Hundred Thousand Rands) for the supply and installation of vertical blinds complete, to be expended as the Agent/Representative may direct or deduct in whole or in part, if not required	Item			200 000.00
29	Profit			%	
30	Attendance			%	
	Carried Forward to Summary of Section No.			R	
	Section No. 2 BUILDING WORKS Bill No. 19 Provisional sums				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Bill No		Page No	Amount R
	Section No. 2		
	BUILDING WORKS		
	<u>SECTION SUMMARY - BUILDING WORKS</u>		
1	Demolitions	36	
2	Earthworks (provisional)	39	
3	Concrete, formwork and reinforcement	43	
4	Precast concrete	44	
5	Masonry	47	
6	Waterproofing	49	
7	Roof coverings, claddings, etc	50	
8	Carpentry and joinery	53	
9	Ceilings, partitions and access flooring	55	
10	Floor coverings, wall linings, etc	56	
11	Ironmongery	64	
12	Structural steelwork	68	
13	Metalwork	75	
14	Plastering	77	
15	Tiling	79	
16	Plumbing and drainage	89	
17	Glazing	90	
18	Paintwork	92	
19	Provisional sums	96	
	Carried to Final Summary		R
	Section No. 2		
	BUILDING WORKS		

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 3</u>			
	<u>BILL NO. 1</u>			
	<u>SERIES 1000 : GENERAL</u>			
	<u>SECTION 1200 : GENERAL REQUIREMENTS AND PROVISIONS</u>			
	<u>B 12.01: Excavation for locating, protecting, or shifting of existing services</u>			
	<u>(a) Excavating soft material with hand tools which are not mechanically or pneumatically powered within the following depth ranges below the surface level:</u>			
1	(i) 0.00 m to 1.5 m	m ³		Rate only
2	(i) Extra -Over sub-item 12.01 (a) 1.5 m to 3 m	m ³		Rate only
	<u>B 12.02: Backfilling of excavations made for locating, protecting, adjusting or shifting existing services</u>			
3	(a) Using the imported materials	m ³		Rate only
	<u>SECTION 1500 : ACCOMMODATION OF TRAFFIC</u>			
	<u>1500: ACCOMMODATION OF TRAFFIC</u>			
4	15.01: Accommodating traffic and maintaining temporary deviations. (Including traffic where road is constructed in half widths)	km	1	
5	15.02: a) Shaping of temporary deviations (8 m wide)	km	1	
6	15.03: Temporary traffic control facilities a) Flagmen	man-da	500	
7	b) Portable STOP and GO-RY signs	No	4	
8	c) Temporary traffic control signals	No		Rate only
	Carried Forward			R
	Section No. 3 EXTERNAL WORK Bill No. 1 External work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R	
9	d) Amber flicker light (55 W intensity)	No			Rate only
10	h) Delineators (TW401 & TW402) (ii) Mounted back to back (1000 mm high x 250 mm wide)	No	15		
11	i) Movable barricade/road sign combination	No	8		
12	j) Traffic cones (750 mm high)	No	20		
13	n) Provision of high visibility safety jackets and safety hats (pairs)	No	10		
14	B 15.14: Allow provisional sum for : a) Repair of damaged temporary road signs and delineators			SUM	
15	b) Replacement of damaged temporary road signs and delineators			SUM	
<u>SECTION 1600 : OVERHAUL</u>					
<u>OVERHAUL</u>					
16	16.01: Haul distance 0,5 km up to 1,0 km (restricted overhaul for tippers on insitu material)	m ³	7 500		
<u>16.02: Haul distance in excess of 1,0 km (ordinary overhaul)</u>					
17	(i) to borrow pits 5km from site	m ³ -km	100 000		
18	(ii) to borrow pits 15km from site	m ³ -km	300 000		
<u>SECTION 1700 : CLEARING AND GRUBBING</u>					
<u>1700: CLEARING AND GRUBBING</u>					
<u>B 17.01: Clearing and grubbing of</u>					
19	a) Normal areas : i) Within the road reserve	m ²	6 592		
20	ii) In borrow pits	m ²	10 000		
		Carried Forward		R	
Section No. 3 EXTERNAL WORK Bill No. 1 External work					

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

			Brought Forward	R	
21	iii) building platform	m ²	15 000		
22	b) Existing fill embankments with slopes steeper than 1:4	m ²	100		
<u>17.02: Removal and grubbing of large trees and tree stumps</u>					
23	a) Girth exceeding 1 m up to and including 2 m	No	10		
24	b) Girth exceeding 2 m up to and including 3 m	No	5		
<u>SECTION 1800 : DAYWORKS</u>					
<u>DAYWORKS</u>					
<u>B 18.01: Labourers</u>					
25	(i) Unskilled	H	32		Rate only
26	(ii) Semi-skilled	H	32		Rate only
27	(iii) Skilled	H	32		Rate only
28	B 18.02: Foreman	H	16		Rate only
<u>B 18.03: Tipper trucks water carts:</u>					
29	(i) 3 – 5 ton tipper	H	32		Rate only
30	(ii) 5,1 – 10 ton tipper	H			Rate only
31	(iii) 5,000 l (minmum) water cart	H	32		Rate only
32	(iv) Lowbed (20 ton)	km			Rate only
33	B 18.04: TLB	H	32		Rate only
34	B 18.05: Grader (CAT 140G or similar)	H			Rate only
35	B 18.06: LDV	H			Rate only
			Carried Forward	R	
Section No. 3 EXTERNAL WORK Bill No. 1 External work					

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>B 18.07: Rollers & rotavators</u>				
36	(i) Vibrator roller	H		Rate only
37	(ii) Pneumatic roller	H	32	Rate only
38	(iii) Rotavator	Day		Rate only
39	(iv) Grid Roller	H	32	Rate only
<u>B 18.08: Hand Controlled Compactors</u>				
40	(i) Pedestrian roller (Bomag BW90)	H		Rate only
41	(ii) Vibratory plate compactor	H		Rate only
42	(iii) Rammers	H		Rate only
43	B 18.09: Excavator (RH7 or similar)	H	32	Rate only
44	B 18.10: Dozer (D7 or similar)	H		Rate only
<u>SERIES : 2000 : DRAINAGE</u>				
<u>SECTION 2100 : DRAINS</u>				
<u>SECTION 2100 : DRAINS</u>				
<u>21.01: Excavation for open drains</u>				
45	(a) (i) Excavating soft material situated within the depth range 0 to 1,5 m deep for open side drains, mitre drains and lined channels	m ³	1 835	
46	b) Extra over subitem 21.01(a) for excavation in:			
	(i) Intermediate material	m ³	734	
47	(ii) hard material	m ³	459	
48	(iii) Rock	m ³	459	
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
<u>21.03: Excavation for subsoil drainage systems:</u>			
49	(a) (i) Excavating soft material situated within the depth range 0 to 1,5 m	m ³	2 106
50	b) Extra over subitem 21.03(a) for excavation in:		
	(i) Intermediate material	m ³	527
<u>21.06: Natural permeable material in subsoil drainage systems (crushed stone)</u>			
51	a) 19mm crushed stone from commercial sources	m ³	506
<u>21.08: Pipe in subsoil drainage</u>			
<u>b) Perforated uPvc pipe and fittings normal duty complete with couplings.</u>			
52	i)110mm	m	1 000
53	ii)160mm	m	150
54	21.10: Sythetic fibre filter material: geotextile/ biddim U24 around pipes and crushed stone filter material	m ²	3 392
<u>21.12: Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems:</u>			
55	a)Outlet structures	No	4
56	b)Manholes	No	9
<u>SECTION 2200 : PREFABRICATED CULVERTS</u>			
<u>PREFABRICATED CULVERTS</u>			
<u>22.01: (a) Excavating soft material situated within the following depth ranges below the surface level:</u>			
57	(i) 0 m up to 1.5 m	m ³	1 404
58	(ii) Exceeding 1.5 m and up to 3.0 m	m ³	234
59	b) Extra over subitem 22.01 (a) for excavation	m ³	13
Carried Forward			R
Section No. 3 EXTERNAL WORK Bill No. 1 External work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
<u>in hard material, irrespective of depth</u>			
60	ii) Ditto rock excavation	m ³	50
61	(c) Extra over subitem 22.01(a) for excavation by hand using hand tools	m ³	50
62	B 22.02: Backfilling and Blanketing a) Using the excavated material	m ³	1 065
63	b) Using imported selected material	m ³	234
64	B 22.01: (c) Extra over subitem 22.02(a) and (b) for soil cement backfilling containing 1% of cement	m ³	20
65	22.03: Concrete Pipe Culverts (b) On class A bedding: Class 50 D pipes (i) 600 mm diameter	m	550
66	(ii) 750 mm diameter	m	85
67	(iii) 900 mm diameter	m	85
<u>22.05: Portal and rectangular culverts</u>			
68	a) 1200mm x 450mm rectangular culverts complete with prefabricated floor slabs	m	30
69	22.08: 15mpa Concrete backfill for rectangular portal culverts	m ³	5
70	22.09: Prefabricated concrete inlets and outlets 1200mm x 450mm rectangular culverts	No	1
71	22.14: Removing and stacking existing prefabricated culverts irrespective of size	m	15
<u>22.17: Manholes catchpits ,precast inlet and outlet structures complete:</u>			
72	a) Brick Manholes	No	28
Carried Forward			R
Section No. 3 EXTERNAL WORK Bill No. 1 External work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
73	22.28: Extra over item 22.09 for Prefabricated reinforced concrete skew end units for concrete culverts constructed at a skew angle for 1200mm x 450mm portal culvert	No	1	
<u>SECTION 2300 : CONCRETE KERBING AND CHANNELING</u>				
<u>CONCRETE KERBING, CHANNELING, CHUTES AND DOWNPIPES, AND CONCRETE LINING FOR OPEN DRAINS</u>				
<u>23.01: Concrete Kerbing</u>				
74	(b) (i) Fig 8c , precast mountable kerb.	m	1 060	
75	(ii) Fig 8a, precast concrete kerb	m	1 900	
<u>23.03: Concrete Chutes</u>				
76	a)Concrete chutes as detailed on drawings	m	80	
<u>23.05: Inlet, outlet, transition and similar structures</u>				
77	b)Kerb inlets	No	15	
78	23.07: Trimming of excavation for concrete-lined open drains:	m ²	821	
<u>23.08: Concrete lining for open drains:</u>				
79	(a) Cast in situ class 30/19 concrete lining in open drains and other structures	m ³	82	
80	(aii) Cast in situ class 30/19 concrete lining in channels around the building	m ³	32	
81	(b) Class F2 surface finish to cast in situ concrete lining	m ²	821	
<u>23.09: Formwork to cast in situ concrete lining for open drains (class F2 surface finish):</u>				
82	(a) To sides with formwork on the internal face only	m ²	104	
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
83	23.10: Sealed joints in concrete lining of open drains	m	456	
84	23.11: 75mm Concrete screed below chutes and culvert floors	m ³	5	
85	23.12: Steel reinforcement high tensile steel bars	t	2.00	
86	23.13: Polyethylene sheeting (0.15mm thick) for concrete-lined open drains	m ²	821	
87	23.15: Precast concrete blocks in outlet Structures	No	30	
<u>SERIES 3000 : EARTHWORKS AND PAVEMENT LAYERS</u>				
<u>SECTION 3100 : BORROW MATERIALS</u>				
88	31.01: a) Strip and stockpile topsoil by mechanical means to a depth up to and including 0,5 m and replace in borrow pit after completion of excavations	m ³	5 000	
89	b) Ditto but exceeding 0,5 m up to 1,0 m	m ³	5 000	
<u>NOTE :</u> <u>All excavated material is measured in cut</u>				
<u>SECTION 3300 : MASS EARTH WORKS</u>				
<u>MASS EARTHWORKS</u>				
<u>B 33.01: Cut and borrow to fill, including haul over any distance</u>				
<u>(a) Material (at least G9) in compacted layer thicknesses of 200 mm and less:</u>				
90	(i) Compacted to 90% of modified AASHTO density	m ³	1 500	
<u>33.03: Extra over item 33.01 for excavating and breaking down material in:</u>				
91	(a) Intermediate excavation	m ³	150	
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
92	(b) Hard excavation	m ³	150	
93	(c) Boulder excavation class A	m ³	50	
94	(d) Boulder excavation class B	m ³	50	
<u>33.04: Cut to spoil, including haul over any distance:</u>				
95	(a) Soft excavation	m ³	10 876	
96	(b) Intermediate excavation	m ³	1 088	
97	(c) Hard excavation	m ³	300	
98	(d) Boulder excavation class A	m ³	50	
99	(e) Boulder excavation class B	m ³	50	
<u>33.10: Roadbed preparation and the compaction of material:</u>				
100	(a) Compaction to 90% of modified AASHTO density	m ³	2 665	
<u>33.13: Finishing off cut and fill slopes, medians</u>				
101	(a) Cut slopes	m ²	640	
102	(b) Fill slopes	m ²	1 068	
<u>SECTION 3400 : PAVEMENT LAYERS OF GRAVEL MATERIAL</u>				
<u>PAVEMENT LAYERS OF GRAVEL MATERIAL</u>				
<u>34.01: Pavement Layers constructed from gravel taken from approved borrow pits including overhaul</u>				
103	(a) Gravel selected layer compacted to: (i) 93 of modified AASHTO density (150mm	m ³	22 776	
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
	<u>G7)</u>		
104	(ii) 95% of modified AASHTO density (150mm	m ³	24 076
	<u>G5)</u>		
	<u>(f) Gravel Base including shoulders (Chemically Stabilised material to C4) compacted to:</u>		
105	(ii) 98% of modified AASHTO density (150mm	m ³	2 720
	<u>G5 to C4)</u>		
	<u>SECTION 3500 : STABILIZATION</u>		
	<u>STABILIZATION</u>		
	<u>35.02: Chemical stabilizing agent</u>		
106	a) Ordinary portland cement	t	72.00
107	35.04: Provision and application of water for curing	KL	250
	<u>SECTION 4100 : PRIME COAT</u>		
	<u>PRIME COAT</u>		
108	41.01: Prime Coat (c) MC-30 cut back bitumen @ 0.8l/m ²	ltr	12 494
	<u>SECTION 4200 : ASPHALT BASE AND SURFACING</u>		
	<u>ASPHALT BASE AND SURFACING</u>		
	<u>42.02: Asphalt surfacing (30mm thick using 60/70 penetration grade bitumen) on approaches</u>		
109	(a) Continuously graded (medium)	m ²	9 995
110	42.04: Tack coat of 30% stable-grade emulsion	ltr	12 494
111	42.08: 100mm cores in asphalt paving	No	15
	<u>SECTION 5100 : PITCHING AND STONEMWORK</u>		
	Carried Forward		R
	Section No. 3 EXTERNAL WORK Bill No. 1 External work		

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>PITCHING AND STONEMWORK</u>				
112	51.05: Concrete edge beams (Class 30/19) - 300mm x 200mm	m ³	66	
<u>51.07: Foundation trenches:</u>				
113	(a) Excavation for concrete edge beams	m ³	66	
<u>SECTION 5500 :FENCING</u>				
<u>FENCING (At borrow pit)</u>				
114	55.01: Clearing the fence line, 2m wide strip	km	5	
<u>55.02: Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:</u>				
115	(a) Zinc-coated barbed wire (high tensile grade, 3,15mm x 2,5mm oval shape)	km	5	
116	(g) Standards (2,5kg/m, Y-shaped steel): (i) 1 850mm long	No	240	
117	(h) Droppers (0,56kg/m ridgeback pattern steel): (i) 1 200mm long	No	1 200	
<u>(i) Straining posts, stays and anchors:</u>				
<u>(i) Vertical:</u>				
118	(1) Steel straining posts, 101,6mm outside dia.,2,95mm wall thickness, fully galva- nized with base plate and pressed mushroom top: (i) 2 100mm long	No	40	
<u>(ii) Inclined:</u>				
<u>(1) Steel stays and anchors, 60,33mm outside dia., 2,95mm wall thickness, fully galvanized with base plate:</u>				
119	(i) 1 700mm long	No	40	
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
		<u>55.03: New gates:</u>		
120	(a) Single leaf, 1 200mm high Government pattern farm gate (heavy) to CSK 146 and 4,2m wide	No	4	
		<u>55.05: Dismantling existing fences and restate them elsewhere:</u>		
		<u>(a) Fences:</u>		
121	(i) Stock-proof fences	km	10	
122	(b) Gates	No	8	
		<u>SECTION 5600 : ROAD SIGNS</u>		
		<u>SECTION 5600 : ROAD SIGNS</u>		
		<u>56.01: Road sign boards with painted or coloured semi matt background. Symbols, lettering and borders in semi matt black or in class 1 retro-reflective material, where the signboard is constructed from aluminium sheet 2.0 mm thick</u>		
123	b) Road signs, R series (1200 mm dia)	No	20	
124	c) T junction - W104	No	10	
125	d) Side road junction (left) W107	No	6	
126	e) Side road junction (right) W108	No	6	
127	f) Gentle curve (left) W202	No	2	
128	g) Gentle curve (right) W203	No	2	
129	h) Stop sign W302	No	15	
130	l) Hump ahead W308	No	20	
131	m) Domestic animals (cattle) W310	No	4	
		Carried Forward		
		R		
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>56.03: Road sign supports</u>				
132	a) Steel tubing (65 mm diameter and 2,0 mm wall thickness)	t	1.00	
133	56.06: Excavation for road sign supports	m ³	50	
134	Extra over item 56.05 for backfilling with 1:2:4 concrete mix	m ³	43	
<u>SECTION 5700 : ROAD MARKINGS</u>				
<u>SECTION 5700 : ROAD MARKING</u>				
<u>57.02: Retro reflective road markings paint</u>				
<u>a) White line (broken or unbroken)</u>				
135	i) 100 mm wide	km	2	
<u>b) Yellow lines (broken or unbroken)</u>				
136	ii) 100 mm wide	km	4	
137	c) White lettering and symbols	m ²	150	
138	d) Yellow lettering and symbols	m ²	200	
<u>57.06: Setting out and premarking the lines</u>				
139	(Excluding traffic island markings, lettering etc.)	km	6	
<u>SECTION 7300 : CONCRETE BLOCK PAVING FOR ROADS</u>				
<u>SECTION 7300 : CONCRETE BLOCK PAVING FOR ROADS</u>				
<u>73.01: Concrete block paving</u>				
140	i)60mm 30MPa concrete interlocking paving blocks	m ²	1 400	
141	ii)80mm 30MPa concrete interlocking paving blocks	m ²	2 000	
142	73.03: Provision of approved herbicide and ant poison		Item	150 000.00
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward			R
	<u>SECTION 7400 : PATENTED EARTH RETAINING SYSTEMS</u>			
	<u>SECTION 7400 : PATENTED EARTH RETAINING SYSTEMS</u>			
	<u>74.01: Patented earth retaining systems</u>			
143	a) Loffelstein precast concrete block of heavy duty type	m ²	1 800	
	<u>SECTION 8100 : TESTING MATERIALS AND WORKSMANSHIP</u>			
	<u>TESTING MATERIALS AND WORKSMANSHIP</u>			
	<u>81.02: Other special tests requested by the Engineer</u>			
144	a) Cost of testing		Item	250 000,00
145	b) Charge on provisional sum		%	
146	c) Prime cost for restaking and setting out		Item	50 000,00
147	d) Charge on provisional sum		%	
	<u>PROVISIONAL SUMS FOR ROADWORKS</u>			
	<u>Provisional sums for Road works</u>			
148	P1: Supply, detail, fabricate, galvanise, powder coat to specified colour, deliver, and erect hoop safety barriers in concrete footing as specified on detailed drawings (price to include supply and fix of reinforced		Item	2 200 000,00
	<u>concrete base footing as specified on drawings)</u>			
149	P2: Supply, assemble, galvanise, powder coat a 2.4m high security "clear vu" or similar approved fence on the perimeter of the site as specified on the drawings including foundations		Item	2 600 000,00
	<u>drawings including foundations</u>			
150	d) Charge on provisional sums above		%	
	Carried Forward			R
	Section No. 3 EXTERNAL WORK Bill No. 1 External work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
151	P3: Supply, and install 50mm concrete covers on channels as detailed on drawings	Item	100 000.00
152	P4: Supply, and install 50mm mentis grating covers on channels as detailed on drawings	Item	100 000.00
153	d) Charge on provisional sums above	%	
<u>SABS 1200C: SITE CLEARANCE</u>			
<u>SABS 1200 DB: EARTHWORKS (PIPE TRENCHES)</u>			
<u>TRENCHES FOR SEWER PIPES</u>			
<u>PSDB 8.3.2: Excavate in all materials for trenches, backfill, compact and dispose of surplus material:</u>			
<u>(a) Pipes up to 250 mm dia for depths:</u>			
154	(i) Up to 0,5 m	m ³ 2	
155	(ii) Over 0,5 m up to 1,0 m	m ³ 20	
156	(iii) Over 1,0 m up to 1,5 m	m ³ 115	
157	(iv) Over 1,5 m up to 2,0 m	m ³ 250	
158	(v) Over 2,0 m up to 2,5 m	m ³ 240	
159	(vi) Over 2,5 m up to 3,0 m	m ³ 240	
160	(vii) Over 3,0 m up to 5,0 m	m ³ 256	
<u>PSDB 8.3.2: Extra over item 3.2.1 above for:</u>			
161	(a) Intermediate excavation	m ³ 25	
162	(b) Hard rock excavation	m ³ 30	
163	(c) Hand excavation and backfill where ordered by the engineer	m ³ 2	
Carried Forward			R
Section No. 3 EXTERNAL WORK Bill No. 1 External work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
164	PSDB 8.3.2: Excavate and dispose of unsuitable material from trench bottom	m ³	200	
<u>PSDB 8.3.3: Excavation ancillaries:</u>				
<u>(a) Make up deficiency in backfill material:</u>				
165	(i) From other necessary excavations on site	m ³	300	
166	(ii)By importation from designated borrow pits	m ³	300	
<u>SABS 1200 LB: BEDDING (PIPES)</u>				
<u>BEDDING FOR SEWER PIPES</u>				
<u>8.2.1: Provision of bedding and blanket from trench excavations:</u>				
167	(a) Selected granular material	m ³	180	
168	(b) Selected fill material	m ³	78	
<u>PSLB 8.2.2: Supply only of bedding and blanket by importation:</u>				
<u>(a) From other necessary excavations:</u>				
169	(i) Selected granular material	m ³	620	
170	(ii)Selected fill material	m ³	78	
171	8.2.2: (b) Provision of 37.5m no. size crushed stone aggregate required for bedding from commercial source when instructed by the Engineer	m ³	110	
<u>SABS 1200 L: SEWERS</u>				
<u>8.2.1: Supply, lay, joint and test pipeline:</u>				
<u>(a) uPVC Class 34, solid wall, sewer pipes with Z - lock joints for the following diameters:</u>				
172	i) 160 mm OD	m	600	
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R	
<u>8.2.3: Precast concrete manhole:</u>					
<u>(a) Supply and install complete precast concrete manholes including excavation and backfill in all materials and disposal of surplus material, fitting concrete cover and frame, spacer, adaptor slabs and step irons for the following depths:</u>					
173	i) Depth 0 m up to 0,5 m	No			Rate Only
174	ii) Depth 0,5 m up to 1,0 m	No	5		
175	iii) Depth 1.0 m up to 1,5 m	No	10		
176	iv) Depth 1,5 m up to 2,0 m	No	8		
177	v) Depth of 2,0 m up to 2,5 m	No	4		
178	vi) Depth of 2,5 m up to 3,0 m	No	3		
179	vii) Depth of 3,0 m up to 5,0 m	No	1		
<u>8.2.4: Extra over items 3.4.3.1 for concrete channelling and backdrops (</u>					
180	a) Concrete benching Type ST (Straight Channel)	No	8		
<u>8.2.4.1: Extra over items 3.4.3.1 for the supply and installation of larger ring sizes for deeper depths including more material for benching for manhole sizes:</u>					
181	(a) 1250 mm Diameter	No	7		
182	(b) 1500 mm Diameter	No	8		
<u>8.2.5: Encasing of pipes in concrete</u>					
183	a) Class 20MPa /19mm	m ³	10		
<u>8.2.5.1: Anchor blocks</u>					
184	a) Grade 20/40 mass concrete anchor block on steep slopes as specified and detailed on drawings where instructed by the engineer	m ³	3		
		Carried Forward		R	
Section No. 3 EXTERNAL WORK Bill No. 1 External work					

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>8.2.6: Erf Connections</u>				
<u>House Connections (complete with marker block & post):</u>				
<u>a) Short house (0-1,0m) sewer connection using:</u>				
185	i) uPVC "Durodrain" or similar approved Solid Wall HD Class 34	No	2	
186	ii) uPVC "Ultracor" or similar approved multi-layer, HD class 400	No	1	
<u>b) Long house (1m up to 2m) sewer connection using:</u>				
187	i) uPVC "Durodrain" or similar approved Solid Wall HD Class 34	m	2	
188	Supply, install, test and commission a parkage sewer treatment plant complete with all necessary pipe work, valves, meters, pumps, accessories etc		Item	4 000 000,00
189	Profit on item '188		%	
190	Supply, install, test and commission a irrigation system complete with all necessary pipework, valves meters, pumps, tanks accesories as well as special botanical grass and plants for landscaping		Item	3 000 000,00
191	Profit on item 190		%	
<u>WATER RETICULATION</u>				
<u>EARTHWORKS (PIPE TRENCHES)</u>				
<u>SABS 1200 DB: EXCAVATION AND BACKFILLING</u>				
<u>a) Excavate in all materials for trenches 0 - 1m wide, compact backfill, and dispose of surplus and unsuitable material within the freehaul distance</u>				
192	i) up to 1,5 m in depth	m ³	700	
<u>SABS 1200 LB: BEDDING</u>				
		Carried Forward		R
Section No. 3 EXTERNAL WORK Bill No. 1 External work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
<u>8.2.1: Provision of bedding material from trench excavations</u>			
193	i) Selected granular material	m ³	160
194	ii) Selected fill material	m ³	120
<u>8.2.2.1: Provision of bedding material by importation from other necessary excavations (freehaul within the site boundaries)</u>			
195	i) Selected granular material	m ³	160
196	ii) Selected fill material	m ³	120
<u>SABS 1200 L: PIPEWORK</u>			
<u>8.2.1: Supply, Lay, join, weld and Bed HDPE Pipes Complete: (The rates shall exclude disinfecting of pipes after completion of hydraulic pipe test.)</u>			
197	i) 110mm dia HDPE class 16	m	380
198	ii) 75mm dia HDPE class 10	m	350
199	Disinfect all reticulation mains	m	730
<u>8.2.3: VALVES</u>			
<u>Specials and Fittings - Isolating Valves: Valves to be anti-clockwise closing non-rising spindle type to SABS 664.</u>			
<u>a) Class 16 gate valves with caps :</u>			
200	i) 110 mm dia	No	7
201	ii) 75 mm dia	No	3
202	8.2.13: Valve chambers	No	10
<u>8.2.4: FITTINGS AND SPECIALS</u>			
<u>8.2.2: Fittings and Specials - HDPE Bends: (Extra-over rate to Items 5.3.1.)</u>			
Carried Forward			R
Section No. 3 EXTERNAL WORK Bill No. 1 External work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
<u>SABS 1200 LF: ERF CONNECTIONS</u>			
<u>Excavate for the supply all pipework for individual house connections through 1 way, 2 way or 4 way connections up to stand boundary as detailed on drawings.</u>			
217	i) 20mm dia class 10 HDPE pipe	m	50
218	ii) 25mm dia class 10 HDPE pipe	m	50
219	iii) 32 mm dia class 10 HDPE pipe	m	50
<u>Saddles</u>			
<u>Supply and install polypropylene saddles for ERF connections. Saddles to fit the following pipes:</u>			
220	i) 75 mm dia HDPE Class 10 pipe	No	10
<u>SUNDRIES</u>			
221	Standard service marker as per standard drawings	No	5
<u>8.2.11: Anchor/Thrust blocks as detailed Grade 15/19 MPa concrete for:</u>			
222	Anchor/Trust blocks complete	m ³	15
223	Supply and install 110mm bulkwater meter	No	1
224	Construction of chamber at connection point		SUM
225	Supply and install sectional steel elevated tank according to specifications including all the necessary pipe inlet and outlet connections, ball valves,stand, foundations, etc.		Item 2 500 000,00
226	Profit on item '225		%
227	Supply and install sectional steel ground tank according to specifications including all the necessary pipe inlet and outlet connections, ball valves,plinths, foundations, etc.		Item 500 000,00
228	Profit on item '227		%
Carried Forward			R
Section No. 3 EXTERNAL WORK Bill No. 1 External work			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

	Brought Forward		R
229	Supply and install a fully equipped borehole according to specifications including all the necessary pipe inlet and outlet connections, valves, meters, pumphouse etc.	Item	600 000.00
230	Profit on item '229	%	
231	Supply and install a fully equipped a water ion exchange plant to specifications including all the necessary pipe inlet and outlet connections, valves, meters etc.	Item	450 000.00
232	Profit on item '231	%	
233	Provisional sum for supply, fix, test, commision of a KSB pump and motor set, (Duty : 50m³/h @ 25 m static head) and all eletro mechanical works for a pump supplying the elevated tank from the 50kl tank including all pipework	Item	550 000.00
234	Profit on item '233	%	
Carried to Final Summary			R
Section No. 3 EXTERNAL WORK Bill No. 1 External work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 4</u>			
	<u>BILL NO.1</u>			
	<u>HVAC</u>			
	<u>COMPLIANCE</u>			
1	As Built Drawings (3 Sets and 3 CDs)		SUM	
2	Operation and Maintenance Manuals (3 Hard Copies and 3 CDs)		SUM	
3	Training Of Technical Staff Upon Completion		SUM	
4	Project Management and Supervision During Construction		SUM	
5	12 Months Maintenance After Final Handover		SUM	
6	Health And Safety File		SUM	
7	Covid 19 File		SUM	
	<u>AIR-CONDITIONING AND VENTILATION</u>			
8	MATERNITY AND OBSTETRIC UNIT MOTHER AND CHILD MCWH i) AHU-03(46 KW), Supply Air Fan at 2520 l/s & 400Pa ESP. The unit shall be VRV HYBRID c/w 3 STAGE FILTRATION SYSTEM	No	1	
9	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *SUPPLY AIR DUCTING*			
	i) 550x550	m	5	
10	ii) 900x400	m	8	
11	iii) 600x400	m	2	
12	iv 550X400	m	2	
13	v) 500x400	m	5	
14	vi) 450x400	m	3	
	Carried Forward			R
	Section No. 4 MECHANICAL WORK Bill No. 1 HVAC			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

		Brought Forward		R
15	vii) 350x400	m	4	
16	viii) 300x400	m	10	
17	ix) 350x350	m	10	
18	x) 300x350	m	4	
19	xi) 250x350	m	5	
20	xii) 200x350	m	10	
21	xiii) 175x350	m	18	
22	xiv) 150x350	m	8	
23	xv) 150x250	m	20	
24	xvi) 150x200	m	8	
25	xvii) Dia 250mm	m	15	
26	xviii) Dia 200mm	m	15	
27	xiv Dia 150mm	m	20	
28	xx) Dia 250mm Flexible Ducting	m	15	
29	xxi) Dia 200mm Flexible Ducting	m	10	
30	xxii) Dia 150mm Flexible Ducting	m	12	
31	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *RETURN AIR DUCTING*			
	i) 550x550	m	5	
32	ii) 750x400	m	11	
33	iii) 450x400	m	10	
34	iv) 375x400	m	8	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R
35	v) 350x400	m	12
36	vi) 300x300	m	12
37	vii) 250x300	m	5
38	viii) 175x300	m	5
39	ix) 200x250	m	5
40	x) Dia 250mm Flexible Ducting	m	6
41	xi) Dia 200mm Flexible Ducting	m	5
42	xii) Dia 150mm Flexible Ducting	m	12
43	TRANSFORMATION PIECES (SUPPLY AIR DUCT)		
	i) 900x400 > 550x550, 900L	No	1
44	ii) 750x400 > 550x550, 600L	No	1
45	iii) 600x400 > 550x400, 600L	No	1
46	iv) 550x400 > 500x400, 600L	No	1
47	v) 500x400 > 300x350, 600L	No	1
48	vi) 350x400 > 300x400, 600L	No	1
49	vii) 300x350 > 200x350, 600L	No	1
50	TRANSFORMATION PIECES (RETURN AIR DUCT)		
	i) 750x400 > 550x550, 600L	No	1
51	ii) 450x400 > 375x400, 600L	No	1
52	iii) 375x400 > 250x300, 600L	No	1
53	iv) 350x400 > 350x300, 600L	No	1
54	v) 500x400 > 300x350, 600L	No	1
55	vi) 350x400 > 300x400, 600L	No	1
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

		Brought Forward		R
56	vii) 300x350 > 200x350, 600L	No	1	
57	SHOE PIECES			
	i) 800x400	No	1	
58	ii) 350x350	No	1	
59	iii) 250x300	No	1	
60	iv) 200x200	No	1	
61	SPIGOTS			
	i) Dia 250mm	No	10	
62	ii) Dia 200mm	No	5	
63	iii) Dia 150mm	No	15	
64	BALANCING DAMPERS			
	i) Dia 250mm	No	6	
65	ii) Dia 200mm	No	8	
66	iii) Dia 150mm	No	12	
67	SUPPLY AIR DIFFUSERS			
	Supply and install (600x600) VAV Swirl Air Diffusers c/w (600x600x400) Supply Air Plenum Boxes and Thermal Controls	No	22	
68	RETURN AIR GRILLS			
	Supply and install (600x600) Egg Crate Return Air Grills c/w (600x600x400) Return Air Plenum Boxes	No	22	
69	HARD WIRED REMOTE CONTROLS			
	Supply and install Hard Wired Remote Controls	No	22	
70	SOUND ATTENUATORS			
	i) 550x550, 1200mm Long, Splitter Type	No	1	
71	VAV PRESSURE CONTROL DAMPER			
	i) 900x400, c/w Sensor and Wiring	No	1	
72	CHRONIC CARE			
	i) AHU-02(21,5 KW), Supply Air Fan at 1164 l/s & 350Pa ESP. The unit shall be VRV HYBRID c/w 3 STAGE FILTRATION SYSTEM	No	1	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward		R
73	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *SUPPLY AIR DUCTING*	
	i) 400x400	5
74	ii) 500x400	9
75	iii) 450x350	2
76	iv) 400X350	4
77	v) 350x350	4
78	vi) 250x300	10
79	vii) 200x300	10
80	viii) 150x300	8
81	ix) Dia 250mm	2
82	x) Dia 200mm	20
83	xi) Dia 150mm	5
84	xii) Dia 250mm Flexible Ducting	10
85	xiii) Dia 200mm Flexible Ducting	15
86	xiv) Dia 150mm Flexible Ducting	12
87	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *RETURN AIR DUCTING*	
	i) 400x400	15
88	ii) 400x350	5
89	iii) 300x300	10
90	iv) 250x350	10
Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC		

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

			Brought Forward		R
91	v) 150x300	m	6		
92	vi) Dia 250mm	m	5		
93	vii) Dia 200mm	m	12		
94	viii) Dia 150mm	m	6		
95	ix) Dia 250mm Flexible Ducting	m	5		
96	x) Dia 200mm Flexible Ducting	m	5		
97	xi) Dia 150mm Flexible Ducting	m	12		
98	TRANSFORMATION PIECES (SUPPLY AIR DUCT) i) 500x400 > 400x400, 600L	No	1		
99	ii) 400x350 > 350x350, 600L	No	1		
100	iii) 250x300 > 150x300, 600L	No	1		
101	iv) 200x300 > 150x250, 600L	No	1		
102	TRANSFORMATION PIECES (RETURN AIR DUCT) i) 400x350 > 300x300, 600L	No	1		
103	ii) 200x250 > 150x250, 600L	No	1		
104	SHOE PIECES i) 450x350	No	1		
105	ii) 250x300	No	1		
106	iii) 200x300	No	2		
107	SPIGOTS i) Dia 250mm	No	2		
108	ii) Dia 200mm	No	5		
109	iii) Dia 150mm	No	5		
110	BALANCING DAMPERS i) Dia 250mm	No	6		
			Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC					

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
111	ii) Dia 200mm	No	8
112	iii) Dia 150mm	No	12
113	SUPPLY AIR DIFFUSERS Supply and install (600x600) VAV Swirl Air Diffusers c/w (600x600x400) Supply Air Plenum Boxes and Thermal Controls	No	12
114	RETURN AIR GRILLS Supply and install (600x600) Egg Crate Return Air Griils c/w (600x600x400) Return Air Plenum Boxes	No	12
115	HARD WIRED REMOTE CONTROLS Supply and install Hard Wired Remote Controls	No	12
116	SOUND ATTENUATORS i) 500x400, 1200mm Long, Splitter Type	No	1
117	VAV PRESSURE CONTROL DAMPER i) 500x400, c/w Sensor and Wiring	No	1
118	ACUTE CARE i) AHU-01(28,5 KW), Supply Air Fan at 1520 l/s & 400Pa ESP. The unit shall be VRV HYBRID c/w 3 STAGE FILTRATION SYSTEM	No	1
119	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *SUPPLY AIR DUCTING* i) 500x500	m	5
120	ii) 600x400	m	5
121	iii) 550x400	m	2
122	iv 475X350	m	5
123	v) 450x350	m	3
124	vi) 350x350	m	3
125	vii) 275x300	m	4
126	viii) 250x350	m	4
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R
127	ix) 200x350	m	6
128	x) Dia 250mm	m	2
129	xi) Dia 200mm	m	20
130	xii) Dia 150mm	m	5
131	xiii) Dia 250mm Flexible Ducting	m	10
132	xiv) Dia 200mm Flexible Ducting	m	25
133	xv) Dia 150mm Flexible Ducting	m	6
134	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *RETURN AIR DUCTING*		
	i) 500x400	m	15
135	ii) 400x350	m	4
136	iii) 350x350	m	2
137	iv) 275x350	m	10
138	v) 175x350	m	10
139	vi) Dia 250mm	m	5
140	vii) Dia 200mm	m	12
141	viii) Dia 150mm	m	6
142	ix) Dia 250mm Flexible Ducting	m	5
143	x) Dia 200mm Flexible Ducting	m	5
144	xi) Dia 150mm Flexible Ducting	m	12
145	TRANSFORMATION PIECES (SUPPLY AIR DUCT) i) 500x400 > 400x400, 600L	No	1
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

		Brought Forward		R
146	ii) 400x350 > 350x350, 600L	No	1	
147	iii) 250x300 > 150x300, 600L	No	1	
148	iv) 200x300 > 150x250, 600L	No	1	
149	TRANSFORMATION PIECES (RETURN AIR DUCT) i) 400x350 > 300x300, 600L	No	1	
150	ii) 200x250 > 150x250, 600L	No	1	
151	SHOE PIECES i) 475x350	No	2	
152	ii) 250x350	No	2	
153	iii) 200x300	No	2	
154	SPIGOTS i) Dia 250mm	No	2	
155	ii) Dia 200mm	No	5	
156	iii) Dia 150mm	No	5	
157	BALANCING DAMPERS i) Dia 250mm	No	6	
158	ii) Dia 200mm	No	8	
159	iii) Dia 150mm	No	12	
160	SUPPLY AIR DIFFUSERS Supply and install (600x600) VAV Swirl Air Diffusers c/w (600x600x400) Supply Air Plenum Boxes and Thermal Controls	No	16	
161	RETURN AIR GRILLS Supply and install (600x600) Egg Crate Return Air Griils c/w (600x600x400) Return Air Plenum Boxes	No	16	
162	HARD WIRED REMOTE CONTROLS Supply and install Hard Wired Remote Controls	No	16	
163	SOUND ATTENUATORS i) 500x400, 1200mm Long, Splitter Type	No	1	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
164	VAV PRESSURE CONTROL DAMPER i) 500x400, c/w Sensor and Wiring	No	1	
165	PHARMACY UNIT i) AHU-04(30,5 KW), Supply Air Fan at 1686 l/s & 400Pa ESP. The unit shall be VRV HYBRID c/w 3 STAGE FILTRATION SYSTEM	No	1	
166	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *SUPPLY AIR DUCTING* i) 700x400	m	10	
167	ii) 600x400	m	6	
168	iii) 500x400	m	5	
169	iv 475X350	m	5	
170	v) 450x350	m	3	
171	vi) 350x350	m	3	
172	vii) 275x300	m	4	
173	viii) 250x350	m	4	
174	ix) 200x350	m	6	
175	x) Dia 250mm	m	2	
176	xi) Dia 200mm	m	20	
177	xii) Dia 150mm	m	5	
178	xiii) Dia 250mm Flexible Ducting	m	10	
179	xiv) Dia 200mm Flexible Ducting	m	25	
180	xv) Dia 150mm Flexible Ducting	m	6	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R
181	RECTANGULAR LOW PRESSURE GALVANISED SHEET METAL DUCTWORK, EXTERNALLY INSULATED WITH ALUMINIUM FOIL FACED FIBREGLASS AS PER SPECIFICATION SUITABLE FOR IN-CEILING APPLICATION c/w SUPPORTS *RETURN AIR DUCTING* i) 500x400	m	15
182	ii) 400x350	m	4
183	iii) 350x350	m	2
184	iv) 275x350	m	10
185	v) 175x350	m	10
186	vi) Dia 250mm	m	5
187	vii) Dia 200mm	m	12
188	viii) Dia 150mm	m	6
189	ix) Dia 250mm Flexible Ducting	m	5
190	x) Dia 200mm Flexible Ducting	m	5
191	xi) Dia 150mm Flexible Ducting	m	12
192	TRANSFORMATION PIECES (SUPPLY AIR DUCT) i) 500x400 > 400x400, 600L	No	1
193	ii) 400x350 > 350x350, 600L	No	1
194	iii) 250x300 > 150x300, 600L	No	1
195	iv) 200x300 > 150x250, 600L	No	1
196	TRANSFORMATION PIECES (RETURN AIR DUCT) i) 400x350 > 300x300, 600L	No	1
197	ii) 200x250 > 150x250, 600L	No	1
198	SHOE PIECES i) 475x350	No	2
199	ii) 250x350	No	2
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
200	iii) 200x300	No	2	
201	SPIGOTS			
	i) Dia 250mm	No	2	
202	ii) Dia 200mm	No	5	
203	iii) Dia 150mm	No	5	
204	BALANCING DAMPERS			
	i) Dia 250mm	No	6	
205	ii) Dia 200mm	No	8	
206	iii) Dia 150mm	No	12	
207	SUPPLY AIR DIFFUSERS			
	Supply and install (600x600) VAV Swirl Air Diffusers c/w (600x600x400) Supply Air Plenum Boxes and Thermal Controls	No	15	
208	RETURN AIR GRILLS			
	Supply and install (600x600) Egg Crate Return Air Grills c/w (600x600x400) Return Air Plenum Boxes	No	15	
209	HARD WIRED REMOTE CONTROLS			
	Supply and install Hard Wired Remote Controls	No	15	
210	SOUND ATTENUATORS			
	i) 750x400, 1200mm Long, Splitter Type	No	1	
211	VAV PRESSURE CONTROL DAMPER			
	i) 750x400, c/w Sensor and Wiring	No	1	
212	ADMISSIONS COUNTER AND DATA CAPTURE			
	i) AC-01(2,6 KW), DX HEAT PUMP Mid Wall Split Unit c/w Condensate Pump	No	2	
213	ii) Refrigerant Pipework	m	30	
214	iii) Dia 25mm Condensate Pipework	m	30	
215	iv) Thermostatic Control (Remote Controllers)	No	2	
216	CONTROL ROOM			
	i) AC-01(2,6 KW), DX HEAT PUMP Mid Wall Split Unit	No	1	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R
217	ii) Refrigerant Pipework	m	4
218	iii) Dia 25mm Condensate Pipework	m	4
219	iv) Thermostatic Control (Remote Controllers)	No	1
220	UPS ROOM i) AC-02(2,6 KW), COOLING ONLY Mid Wall Split Unit c/w Condensate Pump	No	2
221	ii) Refrigerant Pipework	m	50
222	iii) Dia 25mm Condensate Pipework	m	50
223	iv) Thermostatic Control (Remote Controllers)	No	1
224	SERVER ROOM i) AC-02(2,6 KW), COOLING ONLY Mid Wall Split Unit c/w Condensate Pump	No	2
225	ii) Refrigerant Pipework	m	60
226	iii) Dia 25mm Condensate Pipework	m	60
227	iv) Thermostatic Control (Remote Controllers)	No	1
228	SOLAR INVERTER ROOM i) AC-03(7,5 KW), COOLING ONLY Mid Wall Split Unit	No	2
229	ii) Refrigerant Pipework	m	8
230	iii) Dia 25mm Condensate Pipework	m	8
231	iv) Thermostatic Control (Remote Controllers)	No	2
232	PHARMACY STORE AND SURGICAL STORE i) AC-02(2,6 KW), COOLING ONLY Mid Wall Split Unit c/w Condensate Pump	No	2
233	ii) Refrigerant Pipework	m	8
234	iii) Dia 25mm Condensate Pipework	m	8
235	iv) Thermostatic Control (Remote Controllers)	No	2
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
236	DOOR GRILLS			
	i) Natural Anodized (300 x 300) Doors Grills	No	8	
237	ii) Natural Anodized (400 x 400) Doors Grills	No	16	
238	2 HOUR FUSIBLE LINK FIRE DAMPERS			
	i) 900x400	No	1	
239	ii) 750x400	No	2	
240	iii) 550x400	No	2	
241	iv) 500x400	No	2	
242	v) 400x400	No	2	
243	ELECTRICAL CONNECTION TO ALL HVAC EQUIPMENT			SUM
Carried Forward to Summary of Section No.				R
Section No. 4 MECHANICAL WORK Bill No. 1 HVAC				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 4</u>			
	<u>BILL NO.2</u>			
	<u>HOT AND COLD WATER SERVICES</u>			
	<u>COMPLIANCE</u>			
1	As Built Drawings (3 Sets and 3 CDs)		SUM	
2	Operation and Maintenance Manuals (3 Hard Copies and 3 CDs)		SUM	
3	Training Of Technical Staff Upon Completion		SUM	
4	Project Management and Supervision During Construction		SUM	
5	12 Months Maintenance After Final Handover		SUM	
6	Health And Safety File		SUM	
7	Covid 19 File		SUM	
8	HOT AND COLD WATER SERVICES MATERNITY OBSTETRIC UNIT, MOTHER AND CHILD MCWH HEAT PUMPS Supply and Install Direct Heating / Constant Temperature Output Heat Pumps (NOT Cycle Heating Type) to deliver 70 °C outlet temperature. Heat Pumps to deliver 10 KW @ -2/-4 °C (DB/WB) @ an altitude of 1035m. c/w circulation pumps, accessories and controls Heatpumps to be ALLIANCE Model OR equal approved	No	2	
9	CALORIFIERS Supply and Install an insulated ALL weather proof water storage tank complete with external In-Line Heater booster element. 2 coats red oxide exterior primer. 5year Warranty internal lining) Glass wool and Galvanized Cladding) Storage Tank Capacity:500 litres Electrical Back-Up Element: 6 kW	No	1	
10	Charge systems, bleed off air and pressure test in the presence of the Engineer and/or Clerk of works		Item	
	Carried Forward			R
	Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R
26	dia 35-35-35	No	10
27	dia 28-28-28	No	10
28	dia 22-22-22	No	20
29	dia 15-15-15	No	25
	<u>Reducers</u>		
	<u>Extra over copper piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u>		
30	i) 54 - 42	No	2
31	ii) 42 - 35	No	8
32	iii) 35 - 28	No	8
33	iv) 28 - 22	No	10
34	v) 22 - 15	No	20
	<u>Isolating Valves:</u>		
	<u>Ball type Isolating Valve complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions and complying to SANS 1056 - 3</u>		
35	i) Dia 54	No	6
36	ii) Dia 42	No	4
37	iii) Dia 35	No	4
38	iv) Dia 28	No	4
	<u>Non Return Valves:</u>		
	<u>Lift Lype Non Return Valve complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions.</u>		
39	i) Dia 54	No	4
40	ii) Dia 42	No	4
41	iii) Dia 35	No	2
	Carried Forward		R
	Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services		

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
42	iv) Dia 28	No	2
43	v) Dia 22	No	6
<u>AAV - AUTOMATIC AIR VENTS:</u> <u>Specified Strainer complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions.</u>			
44	i) Dia 22	No	4
<u>Pressure Reducing Valve</u>			
45	i) Dia 54	No	1
<u>STRAINERS</u>			
46	i) Dia 54	No	4
47	ii) Dia 22	No	6
<u>Thermaflex Pipe Insulation</u> <u>Thermaflex 25mm insulation</u>			
48	i) Dia 54	m	60
49	ii) Dia 42	m	80
50	iii) Dia 35	m	65
51	iv) Dia 28	m	40
52	v) Dia 22	m	60
53	vi) Dia 15	m	72
<u>Pipe Insulation (Exposed piping)</u> <u>25 mm thick snap-on preformed glass fibre insulation with a density of 80 kg/m3 and covered with 0.5mm thick galvanised sheet metal cladding.</u>			
54	i) Dia 54	m	20
<u>Insulation to fittings (plastered finish) including T's, bends, reducers, valves, etc.</u>			
55	i) Dia 54	No	30
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
56	ii) Dia 42	No	25	
57	iii) Dia 35	No	20	
58	iv) Dia 28	No	25	
59	v) Dia 22	No	40	
60	vi) Dia 15	No	80	
<u>Control Panel And Electrical Connections In Plant Room</u>				
61	i) Main distribution Board wiring c/w controls for 2 Calorifiers and 2-off heatpumps and circulation pumps	No	1	
62	CHRONIC CARE UNIT HEAT PUMPS Supply and Install Direct Heating / Constant Temperature Output Heat Pumps (NOT Cycle Heating Type) to deliver 70 °C outlet temperature. Heat Pumps to deliver 10 KW @ -2/-4 °C (DB/WB) @ an altitude of 1035m. c/w circulation pumps, accessories and controls Heatpumps to be ALLIANCE Model OR equal approved	No	2	
63	CALORIFIERS Supply and Install an insulated ALL weather proof water storage tank complete with external In-Line Heater booster element. 2 coats red oxide exterior primer. 5year Warranty internal lining) Glass wool and Galvanized Cladding) Storage Tank Capacity:500 litres Electrical Back-Up Element: 6 kW	No	1	
64	Charge systems, bleed off air and pressure test in the presence of the Engineer and/or Clerk of works		Item	
65	Hot Water Return PUMPS (Duty and Standby) Supply and Install Duty and Standby Pump Set as specified c/w valves and strainers Flow: 0.6 litres/sec @ 100kPa	No	2	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
		<u>Class II Copper Pipe:</u>		
		<u>Class II copper water piping in accordance with SANS 460 installed complete with short lengths, cutting, plain couplings, capillary solder and jointing strictly in accordance with the Manufacturer's instructions, support bracksts etc.</u>		
66	i) Dia 54	m	20	
67	ii) Dia 42	m	60	
68	iii) Dia 35	m	50	
69	iv) Dia 28	m	40	
70	v) Dia 22	m	55	
71	vi) Dia 15	m	50	
		<u>Bends:</u>		
		<u>Extra over copper piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u>		
72	dia 54	No	8	
73	dia 42	No	6	
74	dia 35	No	10	
75	dia 28	No	6	
76	dia 22	No	30	
77	dia 15	No	26	
		<u>Tees:</u>		
		<u>Extra over copper piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u>		
78	dia 54-54-54	No	4	
79	dia 42-42-42	No	4	
80	dia 35-35-35	No	12	
81	dia 28-28-28	No	12	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R
82	dia 22-22-22	No	20
83	dia 15-15-15	No	20
	Reducers <u>Extra over copper piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u>		
84	i) 54 - 42	No	2
85	ii) 42 - 35	No	6
86	iii) 35 - 28	No	10
87	iv) 28 - 22	No	12
88	v) 22 - 15	No	20
	Isolating Valves: <u>Ball type Isolating Valve complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions and complying to SANS 1056 - 3</u>		
89	i) Dia 54	No	6
90	ii) Dia 42	No	4
91	iii) Dia 35	No	4
92	iv) Dia 28	No	4
	Non Return Valves: <u>Lift Lype Non Return Valve complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions.</u>		
93	i) Dia 54	No	4
94	ii) Dia 42	No	4
95	iii) Dia 35	No	2
96	iv) Dia 28	No	2
97	v) Dia 22	No	6
	Carried Forward		R
	Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services		

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
<u>AAV - AUTOMATIC AIR VENTS:</u>			
<u>Specified Strainer complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions.</u>			
98	i) Dia 22	No	4
<u>Pressure Reducing Valve</u>			
99	i) Dia 54	No	1
<u>STRAINERS</u>			
100	i) Dia 54	No	4
101	ii) Dia 22	No	6
<u>Thermafex Pipe Insulation</u>			
<u>Thermafex 25mm insulation</u>			
102	i) Dia 54	m	60
103	ii) Dia 42	m	80
104	iii) Dia 35	m	65
105	iv) Dia 28	m	40
106	v) Dia 22	m	60
107	vi) Dia 15	m	72
<u>Pipe Insulation (Exposed Piping)</u>			
<u>25 mm thick snap-on preformed glass fibre insulation with a density of 80 kg/m3 and covered with 0.5mm thick galvanised sheet metal cladding.</u>			
108	i) Dia 54	m	20
<u>Insulation to fittings (plastered finish) including T's, bends, reducers, valves, etc.</u>			
109	i) Dia 54	No	30
110	ii) Dia 42	No	25
111	iii) Dia 35	No	20
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
112	iv) Dia 28	No	25
113	v) Dia 22	No	40
114	vi) Dia 15	No	80
<u>Control Panel And Electrical Connections In Plant Room</u>			
115	i) Main distribution Board wiring c/w controls for 2 Calorifiers and 2-off heatpumps and circulation pumps	No	1
116	ACUTE CARE UNIT HEAT PUMPS Supply and Install Direct Heating / Constant Temperature Output Heat Pumps (NOT Cycle Heating Type) to deliver 70 °C outlet temperature. Heat Pumps to deliver 10 KW @ -2/-4 °C (DB/WB) @ an altitude of 1035m. c/w circulation pumps, accessories and controls Heatpumps to be ALLIANCE Model OR equal approved	No	2
117	CALORIFIERS Supply and Install an insulated ALL weather proof water storage tank complete with external In-Line Heater booster element. 2 coats red oxide exterior primer. 5year Warranty internal lining) Glass wool and Galvanized Cladding) Storage Tank Capacity:500 litres Electrical Back-Up Element: 6 kW	No	1
118	Charge systems, bleed off air and pressure test in the presence of the Engineer and/or Clerk of works		Item
119	Hot Water Return PUMPS (Duty and Standby) Supply and Install Duty and Standby Pump Set as specified c/w valves and strainers Flow: 0.6 litres/sec @ 100kPa	No	2
<u>Class II Copper Pipe:</u> <u>Class II copper water piping in accordance with SANS 460 installed complete with short lengths, cutting, plain couplings, capillary solder and jointing strictly in accordance with the Manufacturer's instructions, support bracksts etc.</u>			
120	i) Dia 54	m	20
121	ii) Dia 42	m	60
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
122	iii) Dia 35	m	50
123	iv) Dia 28	m	40
124	v) Dia 22	m	55
125	vi) Dia 15	m	50
<u>Bends:</u>			
<u>Extra over copper piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u>			
126	dia 54	No	8
127	dia 42	No	6
128	dia 35	No	10
129	dia 28	No	6
130	dia 22	No	30
131	dia 15	No	26
<u>Tees:</u>			
<u>Extra over copper piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u>			
132	dia 54-54-54	No	4
133	dia 42-42-42	No	4
134	dia 35-35-35	No	12
135	dia 28-28-28	No	12
136	dia 22-22-22	No	20
137	dia 15-15-15	No	20
<u>Reducers</u>			
<u>Extra over copper piping for capillary fittings in accordance with SANS 1067 - 2 complete with hangers, brackets, soldering , etc.</u>			
138	i) 54 - 42	No	2
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
139	ii) 42 - 35	No	6
140	iii) 35 - 28	No	10
141	iv) 28 - 22	No	12
142	v) 22 - 15	No	20
<u>Isolating Valves:</u>			
<u>Ball type Isolating Valve complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions and complying to SANS 1056 - 3</u>			
143	i) Dia 54	No	6
144	ii) Dia 42	No	4
145	iii) Dia 35	No	4
146	iv) Dia 28	No	4
<u>Non Return Valves:</u>			
<u>Lift Lype Non Return Valve complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions.</u>			
147	i) Dia 54	No	4
148	ii) Dia 42	No	4
149	iii) Dia 35	No	2
150	iv) Dia 28	No	2
151	v) Dia 22	No	6
<u>AAV - AUTOMATIC AIR VENTS:</u>			
<u>Specified Strainer complete with couplings to piping, etc., all strictly in accordance with Manufacturer's instructions.</u>			
152	i) Dia 22	No	4
<u>Pressure Reducing Valve</u>			
153	i) Dia 54	No	1
Carried Forward			R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>STRAINERS</u>				
154	i) Dia 54	No	4	
155	ii) Dia 22	No	6	
<u>Thermafex Pipe Insulation</u>				
<u>Thermafex 25mm insulation</u>				
156	i) Dia 54	m	60	
157	ii) Dia 42	m	80	
158	iii) Dia 35	m	65	
159	iv) Dia 28	m	40	
160	v) Dia 22	m	60	
161	vi) Dia 15	m	72	
<u>Pipe Insulation (Exposed Piping)</u>				
<u>25 mm thick snap-on preformed glass fibre insulation with a density of 80 kg/m3 and covered with 0.5mm thick galvanised sheet metal cladding.</u>				
162	i) Dia 54	m	20	
<u>Insulation to fittings (plastered finish) including T's, bends, reducers, valves, etc.</u>				
163	i) Dia 54	No	30	
164	ii) Dia 42	No	25	
165	iii) Dia 35	No	20	
166	iv) Dia 28	No	25	
167	v) Dia 22	No	40	
168	vi) Dia 15	No	80	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
		<u>Control Panel And Electrical Connections In Plant Room</u>		
169	i) Main distribution Board wiring c/w controls for 2 Calorifiers and 2-off heatpumps and circulation pumps	No	1	
170	PHARMACY UNIT 50 litre Split Type Vertical Heatpump Geyser 400 kPa pressure rating and 3.5 kW input 1kw Heatpump c/w insulation, control, accessories and wiring to local isolator. Heatpump to be Alliance Model equal or approved	No	1	
		<u>Class II Copper Pipe:</u> <u>Class II copper water piping in accordance with SANS 460 installed complete with short lengths, cutting, plain couplings, capillary solder and jointing strictly in accordance with the Manufacturer's instructions, support bracksts etc.</u>		
171	i) Dia 42	m	50	
172	ii) Dia 35	m	45	
173	iii) Dia 28	m	48	
174	iv) Dia 22	m	80	
175	iv) Dia 15	m	50	
176	Ceiling Mounted Instant Water Heater 10 litre Ceiling Mounted Instant Water Heater 400 kPa pressure rating c/w controls, accessories and wiring to local isolator	No	5	
177	MAIN CENTRAL AREA 50 litre Split Type Vertical Heatpump Geyser 400 kPa pressure rating and 3.5 kW input 1kw Heatpump c/w insulation, control, accessories and wiring to local isolator. Heatpump to be Alliance Model equal or approved	No	1	
		<u>Class II Copper Pipe:</u> <u>Class II copper water piping in accordance with SANS 460 installed complete with short lengths, cutting, plain couplings, capillary solder and jointing strictly in accordance with the Manufacturer's instructions, support bracksts etc.</u>		
178	i) Dia 42	m	40	
179	ii) Dia 35	m	40	
		Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
180	iii) Dia 28	m	30
181	iv) Dia 22	m	60
182	iv) Dia 15	m	50
183	STAFF CHANGING ROOMS 50 litre Split Type Vertical Heatpump Geyser 400 kPa pressure rating and 3.5 kW input 1kw Heatpump c/w insulation, control, accessories and wiring to local isolator. Heatpump to be Alliance Model equal or approved	No	1
<p><u>Class II Copper Pipe:</u> <u>Class II copper water piping in accordance with SANS 460 installed complete with short lengths, cutting, plain couplings, capillary solder and jointing strictly in accordance with the Manufacturer's instructions, support bracksts etc.</u></p>			
184	i) Dia 42	m	40
185	ii) Dia 35	m	40
186	iii) Dia 28	m	30
187	iv) Dia 22	m	60
188	iv) Dia 15	m	50
Carried Forward to Summary of Section No.			R
Section No. 4 MECHANICAL WORK Bill No. 2 Hot and Cold Water Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 3</u>			
	<u>FIRE AND PROTECTION SERVICES</u>			
	<u>COMPLIANCE</u>			
1	As Built Drawings (3 Sets and 3 CDs)		SUM	
2	Operation and Maintenance Manuals (3 Hard Copies and 3 CDs)		SUM	
3	Training Of Technical Staff Upon Completion		SUM	
4	Project Management and Supervision During Construction		SUM	
5	12 Months Maintenance After Final Handover		SUM	
6	Health And Safety File		SUM	
7	Covid 19 File		SUM	
	<u>PROVISIONAL SUMS</u>			
	<u>Include the folowing Provisional Sums (which may be utilised or omitted at the discretion of the Engineer), in the Tender Price for required associated services.</u>			
8	Provisional Sum for Contingencies		SUM	
	<u>FIRE PROTECTION SERVICES</u>			
9	FIRE HOSE REELS Supply and install fire hose reels complete as specified in cabinets with breakable glass	No	12	
	<u>PIPEWORK FOR FIRE HOSE REELS</u> <u>Supply and install medium grade, seamless galvanised mild steel pipework complete with pipe supports and accessories as specified and shown on the drawings.</u>			
10	i) Ø50mm	m	75	
11	ii) Ø40mm	m	60	
	Carried Forward			R
	Section No. 4 MECHANICAL WORK Bill No. 3 Fire Protection Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

			Brought Forward		R
12	iii) Ø32mm	m	50		
13	iv) Ø25mm	m	60		
<u>Extra over pipework as follows:</u>					
<u>BENDS</u>					
14	i) Ø50mm	No	10		
15	ii) Ø40mm	No	2		
16	iii) Ø32mm	No	8		
17	iv) Ø25mm	No	20		
<u>REDUCERS</u>					
18	i) Ø50 x 40mm	No	2		
19	ii) Ø40 x 32mm	No	4		
20	iii) Ø32 x 25mm	No	6		
<u>REDUCING TEES</u>					
21	i) Ø50 x 25 x 50mm	No	5		
22	ii) Ø40 x 25 x 40mm	No	10		
23	iii) Ø32 x 25 x 32mm	No	10		
<u>ELBOWS</u>					
24	i) Ø50	No	5		
25	ii) Ø40	No	10		
26	iii) Ø25	No	40		
<u>PORTABLE FIRE EXTINGUISHERS</u>					
<u>Supply and install fire extinguishers complete with cabinets, with breakable glass as specified</u>					
27	i) 4.5kg dry chemical powder.	No	18		
			Carried Forward		R
Section No. 4 MECHANICAL WORK Bill No. 3 Fire Protection Services					

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
28	ii) 5kg carbon dioxide (NOT INSTALLED IN CABINETS)	No	12
<u>PHOTOLUMINESCENT SIGNAGE</u>			
29	i) E3	No	20
30	ii) F4	No	9
31	iv) E6	No	10
32	v) F13	No	6
33	v) E1	No	10
34	v) E2	No	8
35	v) E10	No	6
<u>FIRE AND DOMESTIC WATER BOOSTER PUMP SET</u>			
<u>Supply, deliver, off-load and store on site a pressure boosting units complete with manifolds, valves, 500l diaphragm type expansion vessel, interconnecting piping, pressure gauges and other accessories as specified and shown on the drawings.</u>			
36	i) Variable Speed Vertical Multi-Stage Water Pumps (3 Off) Total Duty: 77.4m3/hr @350kPa. Each Pump @25,8 m3/hr	Pairs	1.0
37	ii) Install Item (i)		Item
38	FIRE HYDRANTS Supply and install Dia. 65mm fire hydrants complete as specified	No	5
Carried Forward to Summary of Section No.			R
Section No. 4 MECHANICAL WORK Bill No. 3 Fire Protection Services			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 4</u>			
	<u>BILL NO. 4</u>			
	<u>DENTAL CHAIRS</u>			
	<u>COMPLIANCE</u>			
1	As Built Drawings (3 Sets and 3 CDs)		SUM	
2	Operation and Maintenance Manuals (3 Hard Copies and 3 CDs)		SUM	
3	Training Of Technical Staff Upon Completion		SUM	
4	Project Management and Supervision During Construction		SUM	
5	12 Months Maintenance After Final Handover		SUM	
6	Health And Safety File		SUM	
7	Covid 19 File		SUM	
	<u>PROVISIONAL SUMS</u>			
	<u>Include the folowing Provisional Sums (which may be utilised or omitted at the discretion of the Engineer), in the Tender Price for required associated services.</u>			
8	Provisional Sum for Contingencies		SUM	
9	Dental Chair Complete	No	2	
10	Dental Light Complete	No	2	
11	Dental Unit Complete	No	2	
12	Dental Cabinet Complete	No	2	
13	Dental Handpiece tubing Complete	No	4	
14	Dental handpiece complete	No	4	
15	Dental straight handpiece fitting	No	4	
	Carried Forward			R
	Section No. 4 MECHANICAL WORK Bill No. 4 Dental Chairs			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

		Brought Forward		R
16	Dental contra-angle handpiece fitting	No	4	
17	Dental prophylaxis handpiece	No	4	
18	Dental micro motor complete	No	4	
19	Dental cuspidor/spittoon complete	No	4	
20	Dental vacuum assistant instrumentation complete	No	4	
21	Dental chair connection boy complete	No	4	
22	Cattani Pal 38 Suction	No	2	
23	Dental oil free compressor system	No	2	
24	Dental Dr Stool /Operator Stool	No	2	
25	Dental amalgamator complete	No	2	
26	Dental LED type curing light complete	No	2	
27	Digital X-Ray unit complete	No	2	
28	Pan X-Ray unit complete	No	1	
29	Dental ultra-sonic scaler complete	No	2	
30	Durr dental developer digital	No	2	
31	Computer system for digital developing	No	1	
32	EZ 9 Autoclave Sterilizer	No	2	
Carried Forward to Summary of Section No.				R
Section No. 4 MECHANICAL WORK Bill No. 4 Dental Chairs				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Bill No		Page No		Amount R
	Section No. 4			
	MECHANICAL WORK			
	<u>SECTION SUMMARY - MECHANICAL WORK</u>			
1	HVAC	133		
2	Hot and Cold Water Services	147		
3	Fire Protection Services	150		
4	Dental Chairs	152		
	Carried to Final Summary			R
	Section No. 4			
	MECHANICAL WORK			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 5</u>			
	<u>BILL NO. 1</u>			
	<u>ELECTRICAL WORK</u>			
	<u>COMPLIANCE WITH CONDITIONS</u>			
1	Nett price for compliance with the Conditions of Contract, the Special Conditions of Contract, and various specifications, which <u>costs are not specifically covered elsewhere or by unit rates</u>		SUM	
	<u>SURETY</u>			
2	Allow for the provision of a performance guarantee for the contract value - refer to the main contract preliminaries attached		SUM	
	<u>SITE ESTABLISHMENT</u>			
3	Allow for the electrical site establishment, all associated services and for storage of plant, materials and equipment including protection thereof		SUM	
	<u>TRANSPORT</u>			
4	Provide and arrange for transport and off loading of all electrical material and equipment to site as well as workmen and staff		SUM	
	<u>COMMISSIONING AND TESTING</u>			
5	Supply all test equipment and labour for testing, commissioning and and adjustment for all the sections of the installation.		SUM	
	<u>DRAWINGS</u>			
6	Making reference, to other relevant drawings e.g. Civil, Structural, Architectural existing services etc.		SUM	
	<u>AS BUILT DRAWINGS</u>			
7	Compilation of as built drawings for the complete electrical installation		SUM	
	Carried Forward		R	
	Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward	R
	<u>EXTRACTS FROM THE PRINCIPAL CONTRACTOR\</u>	
8	Allowance for any costs associated with the requirements of the Principal Contract preliminaries which may affect the selected sub contract.	SUM
	<u>MAINTENANCE</u>	
9	Allow for a maintenance period as per PW 379 for defects in equipment, material and workmanship but wear and tear and normal maintenance excluded	SUM
	<u>GUARANTEE PERIOD</u>	
10	Allow for a guarantee period as per PW379 on all the electrical and electronic equipment but items such as lamps excluded	SUM
	<u>ADDITIONAL</u>	
	<u>Allow for the following additional item(s):</u>	
11	Ablution facilities	SUM
12	Water & electrical connections	SUM
13	Any time related items	SUM
14	Training of local residents re: the installation of cables, conduits, etc.(if applicable)	SUM
15	Storage facility for all the metirials on site	SUM
	<u>STRIPING EXISTING INSTALLATION</u>	
16	Allow a sum amount for the stripping of the electrical installation, liasion with the Client, handing over of all equipment to the Client, arrange for switching off of power supplies and make save of\ outlet points, etc	SUM
	Carried Forward	R
	Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work	

				R
	Brought Forward			
	<u>OTHER NECESSARY WORKS</u>			
17	All other works necessary to complete the installation in a satisfactory manner, and in accordance with the drawings, specification, SABS Code of Practice, the Local Authorities requirements, and to the Engineers satisfaction to include for items specified or shown but not itemised in this bill.			SUM
	<u>ELECTRICAL RETICULATION INSTALLATION</u>			
	<u>NOTE: Tenderers are advised to study the specification before pricing the bill.</u>			
	<u>DISTRIBUTION BOARDS</u>			
	<u>Allowance should be made for the following electrical equipment.</u>			
	<u>Supply, deliver, install and commissioning of electrical distribution boards painted steel panel complete with doors, frames, sub-frames, chassis, fixtures, fittings, terminations, busbars, wiring, labels danger signs and with spare space etc as per specification.</u>			
	<u>Equipment to be provided in distribution board</u>			
	<u>See attached single line diagram for details of the equipment to be provided in the electrical distribution board where applicable</u>			
18	Supply and install main New kiosk with metering unit complete with all accessories. Supply	No	1	
19	Install	No	1	
20	Supply and install Kiosk 1 complete with all accessories. Supply	No	1	
21	Install	No	1	
22	Supply and install Kiosk 2 complete with all accessories. Supply	No	1	
23	Install	No	1	
	Carried Forward			R
	Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
24	Supply and install new LV Panel with all accessories. Supply	No	1	
25	Install	No	1	
26	Supply and install MDB with all accessories. Supply	No	1	
27	Install	No	1	
28	Supply and install DB-CC with all accessories. Supply	No	1	
29	Install	No	1	
30	Supply and install DB-MAT with all accessories. Supply	No	1	
31	Install	No	1	
32	Supply and install DB-PH with all accessories. Supply	No	1	
33	Install	No	1	
34	Supply and install DB-PHA with all accessories. Supply	No	1	
35	Install	No	1	
36	Supply and install DB-MCA with all accessories. Supply	No	1	
37	Install	No	1	
38	Supply and install DB-AC with all accessories. Supply	No	1	
39	Install	No	1	
40	Supply and install DB-GH with all accessories.	No	1	
41	Supply	No	1	
		Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
42	Install Electrical danger signs for all DB's. Supply	No	15
43	Install	No	15
<u>LOW VOLTAGE CABLES</u>			
<u>600/1000V Grade PVC/PVC/SWA/PVC stranded copper conductor cables, terminations and bare copper earth conductors</u>			
<u>16 mm sqr 4 core PVC/PVC/SWA/PVC normal power supply cable</u>			
44	Supply	m	600
45	Install	m	600
46	10 mm sqr bare copper conductor Supply	m	600
47	Install	m	600
48	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	46
49	Install	No	46
<u>50 mm sqr 4 core PVC/PVC/SWA/PVC normal power cable from</u>			
50	Supply	m	110
51	Install	m	110
52	35 mm sqr bare copper conductor Supply	m	110
53	Install	m	110
Carried Forward			R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
54	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	4
55	Install	No	4
56	70 mm sqr 4core PVC/PVC/SWA/PVC normal power supply cable from Main DB Supply	m	70
57	Install	m	70
58	50 mm sqr bare copper conductor Supply	m	70
59	Install	m	70
60	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	2
61	Install	No	2
	<u>95 mm sqr 4 core PVC/PVC/SWA/PVC normal power supply cable</u>		
62	Supply	m	130
63	Install	m	130
64	70 mm sqr bare copper conductor Supply	m	130
65	Install	m	130
66	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	4
67	Install	No	4
	Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
68	35 mm sqr 4-core PVC/PVC/SWA/PVC normal power supply cable from Main DB to DB-BM Supply	m	120
69	Install	m	120
70	25 mm sqr bare copper conductor Supply	m	120
71	Install	m	120
72	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	2
73	Install	No	2
<u>25 mm sqr 4-core PVC/PVC/SWA/PVC normal supply cable</u>			
74	Supply	m	120
75	Install	m	120
76	16 mm sqr bare copper conductor Supply	m	120
77	Install	m	120
78	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	4
79	Install	No	4
80	Supply and install DB-J, 1 & 2 with all accessories. Supply	No	3
81	Install	No	3
82	Supply and install 80kVA UPS with at least 2hrs battery backup Supply	No	1
83	Install	No	1
Carried Forward			R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward			R
<u>120mm sqr 4-core PVC/PVC/SWA/PVC supply cable from</u>			
84	Supply	m	200
85	Install	m	200
86	95 mm sqr bare copper conductor Supply	m	200
87	Install	m	200
88	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	2
89	Install	No	2
90	10mm sqr 4-core PVC/PVC/SWA/PVC emergency supply cable from Supply	m	60
91	Install	m	60
92	6 mm sqr bare copper conductor Supply	m	60
93	Install	m	60
94	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	2
95	Install	No	2
<u>16mm sqr 3-core PVC/PVC/SWA/PVC emergency supply cable</u>			
96	Supply	m	200
97	Install	m	200
98	10 mm sqr bare copper conductor Supply	m	200
99	Install	m	200
Carried Forward			R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Brought Forward				R
100	Cable termination of cable and BCEW complete with glands, shrouds, lugs, connections and commissioning Supply	No	4	
101	Install	No	4	
102	Cable testing			SUM
103	Labels - cable numbers			SUM
<u>CABLE LADDERS AND TRUNKING</u>				
<u>Allowance should be made for the following electrical equipment</u>				
<u>Heavy duty hot dipped galvanised cable ladder welded construction 2mm material thickness 76 mm side rail height complete with all risers, droppers, bends, horisontal tees, horisontal crosscovers, height reducing splices, splices, adjustable splices, bolts, nuts, washers, spring washers, supporting brackets, cantilever brackets or hangers etc as required and specified:</u>				
104	600 mm wide cable ladder	Supply	m	20
105	Install		m	20
106	100 mm wide cable ladder	Supply	m	30
107	Install		m	30
108	150 mm wide cable tray	Supply	m	250
109	Install		m	250
110	300 mm wide cable mash basket	Supply	m	300
111	Install		m	300
Carried Forward				R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
112	110 mm Cable sleeves and man hole's Supply and install a 110 mm PVC sleeves complete with all accessories 110mm cable sleeves Supply	m	1 500	
113	Install	m	1 500	
114	800mm x 800mm x 600mm manhole Supply	No	10	
115	Install	No	10	
<u>Excavate and backfill cable trench 800deep 600wide including compacting</u>				
116	In hand - pickable soil	m ³	600	
117	In Soft Rock	m ³	320	
118	In hard Rock	m ³	200	
119	Danger Tape	m	3 500	
<u>INTERNAL ELECTRICAL INSTALLATION</u>				
<u>Complete electrical installation: internal small power and lighting</u>				
<u>NOTE: Tenderers are advised to study the specification before pricing the bill.</u>				
<u>SMALL POWER AND LIGHTING</u>				
<u>SWITCHED SOCKET OUTLETS</u>				
<u>Switched socket outlets and accessories as specified in the specification:</u>				
<u>Allowance should be made for the following electrical equipment</u>				
<u>16 Ampere round 3 pin 250 V grade switched socket outlets complete with cover plates, screws, etc installed in flush draw boxes or power skirting.</u>				
		Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward		R
<p><u>600V/1000V grade PVC insulated stranded copper conductor drawn in conduit 4 mm sqr PVC conductors and 2.5mm sqr BCEW</u></p> <p><u>Draw boxes, conduits equipped with draw wire placed in position for casting into concrete or screed, for building in or chased into concrete or brickwork and for surface mounted in ceiling voids included dending threading, jointing, short lengths, draw boxes, couplings, bends, tees, and saddles etc as specified:</u></p>		
120	16 Amp single switched socket outlet complete with cover plate for installation in a 100 mm x 100 mm drawbox, etc Supply	200
121	Install	200
122	16 Amp double switched socket outlet complete with cover plate for installation in a 100 mm x 100 mm drawbox, etc Supply	60
123	Install	60
124	16 Amp normal switched socket outlet complete with cover plate for installation on power skirting, etc Supply	60
125	Install	60
126	16 Amp dedicated switched socket outlet complete with cover plate for installation on power skirting, etc Supply	60
127	Install	60
128	16A single switched dedicated socket outlet flush mounted complete with all accessories. Supply	60
129	Install	60
130	5A un-switched socket outlet surface mounted on P2000 complete with all accessories Supply	160
Carried Forward		R
<p>Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work</p>		

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R	
131	Install	No	160	
132	16A Pedestrial single switched dedicated socket outlet flush mounted complete with all accessories. Supply	No	1	
133	Install	No	1	
134	4 mm sqr PVC insulated conductor Supply	m	6 500	
135	Install	m	6 500	
136	2.5 mm sqr Bare Copper Earth Wire Supply	m	3 250	
137	Install	m	3 250	
138	2.5 mm sqr PVC insulated conductor Supply	m	813	
139	Install	m	813	
140	4 mm sqr 5-core PVC/PVC/SWA/PVC Supply	m		Rate only
141	Install	m		Rate only
142	4 mm sqr Surfex / Norse cable Supply	m		Rate only
143	Install	m		Rate only
144	100 mm x 100 mm draw box flush mounted complete chased in Supply	No	60	
145	Install	No	60	
146	100 mm x 50 mm draw box surface mounted complete installed complete with all accessories Supply	No	10	
147	Install	No	10	
Carried Forward				
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			R	

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
148	20 mm diameter PVC conduit complete installed with all bends, fixing saddles, adaptors, chased into walls, ect. as specified. Supply	m	3 500	
149	Install	m	3 500	
150	25 mm diameter PVC conduit complete installed with all bends, fixing saddles, adaptors, chased into walls, ect. as specified. Supply	m	1 710	
151	Install	m	1 710	
152	Supply and install three compactment powerskirting complete with all accessories Supply	m	100	
153	Install	m	100	
154	Supply and install electrical photo cell complete with all accessories Supply	m	9	
155	Install	m	9	
<u>LIGHT FITTINGS</u>				
<u>Luminaries and accessories as specified in the specification</u>				
<u>Allowance should be made for the following electrical equipment</u>				
<u>Light fittings as specified in the specification - the light fitting specified must comply to the quality specified in the specification.</u>				
<u>600V/1000V grade PVC insulated stranded copper conductor drawn in conduit - 2.5 mm sqr PVC conductors and 2.5mm sqr BCEW</u>				
<u>Draw boxes, conduits equipped with draw wire placed in position for casting into concrete or screed, for building in or chased into concrete or brickwork and for surface mounted in ceiling voids including bending threading, short lengths, draw boxes, couplings, bends, tees and saddles etc as specified:</u>				
		Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
<u>Installed and mounted to round draw boxes in or ceiling voids or roof trusses including all fixing brackets, supports, connectors, connections complete with lamps</u>				
156	Type B2 Supply	No	70	
157	Install	No	70	
158	Type A Supply	No	60	
159	Install	No	60	
160	Type D Supply	No	50	
161	Install	No	50	
162	Type D1 Supply	No	40	
163	Install	No	40	
164	Type BL Supply	No	30	
165	Install	No	30	
166	Type P Supply	No	40	
167	Install	No	40	
168	Type F2 Supply	No	20	
169	Install	No	20	
170	Type F3 Supply	No	160	
171	Install	No	160	
		Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
172	Type H Supply	No	10	
173	Install	No	10	
174	Type EL Supply	No	12	
175	Install	No	12	
176	Type F Supply	No	10	
177	Install	No	10	
<u>Supply and install motion lighting sensor complete with all accessories</u>				
178	Supply	m	14	
179	Install	m	14	
180	Exit light fitting with battery backup Supply	m	8	
181	Install	m	8	
182	2.5 mm sqr PVC insulated conductor Supply	m	7 500	
183	Install	m	7 500	
184	2.5 mm sqr Bare Copper Earth Wire Supply	m	3 750	
185	Install	m	3 750	
<u>LIGHT SWITCHES</u>				
<u>Light switches and accessories as specified in the specification</u>				
<u>Allowance should be made for the following electrical equipment:</u>				
		Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward			R
	<u>16 Ampere 250 V grade light switches complete with cover plates, screws etc installed in flush draw box</u>			
	<u>Draw boxes, conduits equipped with draw wire placed in position for casting into concrete or screed, for building in or chased into concrete or brickwork and for surface mounted in ceiling voids included bending threading, jointing, short lengths, draw boxes, couplings, bends, tees and saddles etc as specified:</u>			
186	Single lever one way light switch complete with all accessories			
	Supply	No	30	
187	Install	No	30	
188	Single lever one way master light switch complete with all accessories			
	Supply	No	2	
189	Install	No	2	
190	20 mm diameter PVC conduit complete installed with all bends, fixing saddles, adaptors, chased into walls, ect. as specified.			
	Supply	m	800	
191	Install	No	800	
192	Single lever two way light switch complete with all accessories			
	Supply	No	1	
193	Install	No	1	
	<u>ISOLATORS AND POWER OUTLET POINTS</u>			
	<u>Isolators and power outlet points accessories as specified in the specification:</u>			
	<u>Allowance should be made for the following electrical equipment:</u>			
	<u>30 Ampere and 60 Ampere 250 V grade isolators complete with cover plates, screws, etc. installed in flush or surface mounted draw boxes or power skirting.</u>			
	Carried Forward			R
	Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

Brought Forward		R	
<u>600V/1000V grade PVC insulated stranded copper conductors drawn in conduit - PVC conductor and BCEW - current carrying capacity of conductors to be in accordance with SABS 0124</u>			
194	20 Ampere 230 V double pole isolater single phase complete with cover plates installed as specified Supply	No	20
195	Install	No	20
196	20 Ampere 230 V single pole isolater single phase complete with cover plates installed as specified Supply	No	2
197	Install	No	2
198	60 Ampere 400 V four pole isolater single phase complete with cover plates installed as specified Supply	No	2
199	Install	No	2
200	4 mm sqr PVC insulated conductor Supply	m	500
201	Install	m	500
202	2.5 mm sqr Bare Copper Earth Wire Supply	m	250
203	Install	m	250
204	4 mm sqr Surfex / Norse cable Supply	m	
205	Install	m	
206	100 mm x 100 mm draw box flush mounted complete chaded in Supply	No	24
207	Install	No	24
208	100 mm x 100 mm draw box surface mounted complete installed Supply	No	12
Carried Forward		R	
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

			R
	Brought Forward		
209	Install	No	12
210	25 mm diameter PVC conduit complete installed with all bends, fixing saddles, adaptors, chased into walls, ect. as specified. Supply	m	500
211	Install	m	500
<u>WIRE WAYS</u>			
<u>Conduits, draw boxes and accessories as specified in the specification</u>			
<u>Allowance should be made for the following electrical equipment:</u>			
<u>Draw boxes for electrical, telephone, data, fire detection, air conditioning equipment, etc.</u>			
<u>Draw boxes, conduits equipped with draw wire placed in position for casting into concrete or screed, for building in or chased into concrete or brickwork and for surface mounted in ceiling voids included bending threading, jointing, short lengths, draw boxes, couplings, bends, tees, and saddles etc as specified:</u>			
212	100 mm x 50 mm x 50 mm draw box complete with all accessories Supply	No	14
213	Install	No	14
214	400 mm x 400 mm x 200 mm Telephone box complete with all accessories Supply	No	1
215	Install	No	1
<u>EARTHING AND BONDING</u>			
216	Complete earthing and bonding of all water pipes, waste pipes, trunking, cable ladders, trays, etc		SUM
217	Earthing and lightning protection system to be tested and upgrade complete as required, etc.		SUM
Carried Forward			R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
218	Clean earth installation for the voice data installation to be tested and upgrade complete as required, etc.			SUM
<u>TESTING AND COMMISSIONING</u>				
219	Testing and commissioning of the complete electrical installation			SUM
<u>AS BUILT DRAWINGS</u>				
220	Trace the existing installation and compile a complete set of marked up as built drawings to be submitted in the operating and maintenance manuals			SUM
<u>CERTIFICATE OF COMPLIANCE</u>				
221	Issuing a certificate of compliance for the complete electrical installation			SUM
<u>CLEAN UP AND RESTORATION OF SITE</u>				
222	Clean up and restoration of the site after completion and during construction to the satisfaction of the engineer and the client.			SUM
<u>200kVA GENERATOR SERVICES INSTALLATION</u>				
223	200kVA Stand by diesel generator set with AMF panela and change over panel , complete with all equipment as specified:			
	Supply	No	1	
224	Install	No	1	
225	air-inlet and outlet louvers			
	Supply	No	1	
226	Install	No	1	
227	Sound Attenuation, air inlet sound attenuator			
	Supply	No	1	
228	air outlet sound attenuator			
	Supply	No	1	
229	Installation	No	1	
		Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

		Brought Forward		R	
230	Sound proof Doors Supply	No	1		
231	Install	No	1		
232	Mild steel residential exhaust wit exhaust lagged inside the enclosure Supply	No	1		
233	Install	No	1		
234	fire valve shut-off kit Supply	No	1		
235	Install	No	1		
236	Compilation of Operation and Maintenance Manuals Supply	No	3		
237	Certificate of compliance Supply	No	1		
238	Testing, inspection and Commisioning			SUM	
<u>Provisional Sums</u>					
<u>lightning protection and earthing</u>					
239	Design, Supply and installed of lightning protection by specialist		Item		160 000,00
240	Profit			%	
241	Attendance			%	
<u>Connection Fee</u>					
242	Application of connection from Eskom		Item		800 000,00
243	Profit			%	
244	Attendance			%	
Carried Forward				R	
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work					

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R	
	<u>Solar installation</u>			
245	Application of connection from Eskom	Item		2 500 000.00
246	Profit		%	
247	Attendance		%	
Carried Forward to Summary of Section No.			R	
Section No. 5 ELECTRICAL WORK Bill No. 1 Electrical work				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 5</u>			
	<u>BILL NO. 2</u>			
	<u>SMOKE DETECTION INSTALLATION</u>			
	<u>PRELIMINARIES</u>			
	Note: <u>Allowance for measure ments to be taken on site before material is ordered. The contractor will not order of the bill of quantities but measure on site before ordering and order according to measurements on site.</u>			
1	COMPLIANCE WITH CONDITIONS Nett price for compliance with the Conditions of Contract, the Special Conditions of Contract, and various specifications, which costs are not specifically covered elsewhere or by unit rates			SUM
2	SITE ESTABLISHMENT Allow for the electrical site establishment, all associated services and for storage of plant, materials and equipment including protection thereof			SUM
3	TRANSPORT Provide and arrange for transport and off loading of all electrical material and equipment to site as well as workmen and staff			SUM
4	COMMISSIONING AND TESTING Supply all test equipment and labour for testing, commissioning and adjustment for all the sections of the installation.			SUM
5	DRAWINGS Making reference, to other relevant drawings e.g Civil, Structural, Architectural, existing services etc.			SUM
6	AS BUILT DRAWINGS Compilation of as built drawings for the complete electrical installation			SUM
7	EXTRACTS FROM THE PRINCIPAL CONTRACT Allowance for any costs associated with the requirements of the Principal Contract preliminaries which may affect the selected sub contract.			SUM
	Carried Forward			R
	Section No. 5 ELECTRICAL WORK Bill No. 2 Smoke detection			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R
8	MAINTENANCE Allow for a maintenance period of 3 months defects in equipment, material and workmanship but wear and tear and normal maintenance excluded		SUM
9	GUARANTEE PERIOD Allow for a 12 months guarantee period on all the electrical and electronic equipment but items such as lamps excluded		SUM
10	ALLOW FOR THE FOLLOWING ADDITIONAL ITEMS: Ablution facilities		SUM
11	Water & electrical connections		SUM
12	Any time related items		SUM
13	Training of local residents re: the installation of cables, conduits, etc.		SUM
	<u>OTHER NECESSARY WORKS</u> <u>All other works necessary to complete the installation in a satisfactory manner, and in accordance with the drawings, specification, SABS Code of Practice, the Local Authorities requirements, and to the Engineers satisfaction to include for items specified or shown but not itemised in this bill.</u>		
14	Quality & Scope of Work, Specification and design change	Item	
15	Contract Requirements	Item	
16	Company Head Office overhead costs	Item	
17	Compliance with OHS Regulations (latest version)	Item	
	<u>FIRE DETECTION INSTALLATION</u> <u>Complete installation: Reticulation for fire detection</u> <u>NOTE: Tenderers are advised to study the specification before pricing the bill.</u>		
	Carried Forward		R
	Section No. 5 ELECTRICAL WORK Bill No. 2 Smoke detection		

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward		R	
<u>Design, supply, delivery, installation and commissioning of the complete fire detection installation according to the relevant SABS specifications and as specified:</u>			
18	Addressable fire detection panel complete with power supply, battery charger, battery backup , 2 loops, switching/ mini switching monitor units, sounder control loop, loop powder sounder, software, panels, keyboards,etc as specified Supply	No 4	
19	Install	No 4	
20	Optical detector complete with baseplate as specified fixed to suspended ceiling tiles, fixed boarding, concrete slab soffit, forming a hole through the ceiling tiles or boarding for wiring etc Supply	No 92	
21	Install	No 92	
22	Heat detector complete with baseplate as specified fixed to suspended ceiling tiles, fixed boarding, concrete slab soffit, forming a hole through the ceiling tiles or boarding for wiring etc Supply	No 12	
23	Install	No 12	
24	Red breakglass unit complete as specified fixed to drawbox provided in brick walls etc Supply	No 4	
25	Install	No 4	
26	Green breakglass unit complete as specified fixed to drawbox provided in brick walls etc Supply	No	Rate only
27	Install	No	Rate only
28	Fire alarm sounders as specified fixed to suspended ceiling tiles, fixed boarding, concrete slab soffit, forming a hole through the ceiling tiles or boarding for wiring etc Supply	No 20	
29	Install	No 20	
Carried Forward		R	
Section No. 5 ELECTRICAL WORK Bill No. 2 Smoke detection			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R	
30	Fire shutdown relays complete with contacts as specified for AC units and extract fans Supply	No	12	
31	Install	No	12	
32	Lightning and surge protecting installation for the complete system in all zones Supply	No	8	
33	Install	No	8	
34	Fire strobe light and alarm as specified fixed to suspended ceiling tiles, fixed boarding, concrete slab soffit, forming a hole through the ceiling tiles or boarding for wiring etc Supply	No		Rate only
35	Install	No		Rate only
36	Fire retarded cable complete with all required fittings and accessories, terminations, lugs, etc Supply	m	3 000	
37	Install	m	3 000	
38	Allowance for any items required for the operation of the complete system but not listed above		Item	
39	Complete system engineering testing and commissioning		Item	
40	Communication LINK cable between the panels distance 100 meters		Item	
41	Provision of a complete detailed list of material offered submitted with the tender		Item	
42	Fire door holding magnets complete supplied and installed Supply	No	20	
43	Install	No	20	
44	25 mm diameter steel conduit Supply	m	800	
45	Install	m	800	
Carried Forward			R	
Section No. 5 ELECTRICAL WORK Bill No. 2 Smoke detection				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R
46	60 mm round drawboxes Supply	No	104	
47	Install	No	104	
48	50 mm x 100 mm drawboxes Supply	No	20	
49	Install	No	20	
50	42 mm x 42 mm galvanised steel wire trunking Supply	m	200	
51	Install	m	200	
52	25 mm diameter flexible conduit links from wire way to detector poitions complete with round draw box at one end and around cover plate equipped with an adapter on the other end for connection of the flexible conduit and connection to the wire way Supply	m	104	
53	Install	m	104	
<u>QUEUE MANAGEMENT SYSTEM - Casualty</u>				
<u>Complete installation: Queue Management System</u>				
<u>NOTE: Tenderers are advised to study the specification before pricing the bill</u>				
<u>Design, supply, delivery, installation and commissioning of the complete Queue Management systems according to the relevant specifications and as specified:</u>				
<u>Floor Standing Ticket Kiosk With 10" Touched Screen supplied, installed and commissioned as specified</u>				
54	Supply		Item	
55	Install		Item	
		Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 2 Smoke detection				

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward				R
	<u>Queue display 40" Screen TV queues on the left, with Reserved area for advertising and ticket calling is displayed above the advertising area supplied, installed and commissioned as specified</u>				
56	Supply		Item		
57	Install		Item		
	<u>Software Call Pad, Runs on existing IT Infrastructure, Performs same advanced functions as the queue Management keypad, Display additional information supplied, installed and commissioned as specified</u>				
58	Supply	No	7		
59	Install	No	7		
60	Three (3) sets of Complete Operating and Maintenance manual for the system as specified	No	1		
61	<u>Three (3) sets of Complete As built drawings for the complete system as specified</u>	No	1		
62	Allowance for any items required for the complete system operation but not listed above as per the specification required attach a list of equipment shall be submitted if this item is priced	Sets	1.0		
63	Complete training course for operators, the tendered shall submit full details of the proposed training course for approval by the Client	Sets	1.0		
64	Provision of electronic services		Item		200 000.00
	Carried Forward to Summary of Section No.				R
	Section No. 5 ELECTRICAL WORK Bill No. 2 Smoke detection				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 5</u>			
	<u>BILL NO. 3</u>			
	<u>ITC SYSTEMS</u>			
	<u>Note:</u> <u>Allowance for measure to be taken on site before material is ordered. The contractor will not order of the bill of quantities but measure on site before ordering and order according to measurements on site.</u>			
1	COMPLIANCE WITH CONDITIONS Nett price for compliance with the Conditions of Contract, the Special Conditions of Contract, and various specifications, which costs are not specifically covered elsewhere or by unit rates			SUM
2	SITE ESTABLISHMENT Allow for the electrical site establishment, all associated services and for storage of plant, materials and equipment including protection thereof			SUM
3	TRANSPORT Provide and arrange for transport and off loading of all electrical material and equipment to site as well as workmen and staff			SUM
4	COMMISSIONING AND TESTING Supply all test equipment and labour for testing, commissioning and adjustment for all the sections of the installation.			SUM
5	DRAWINGS Making reference, to other relevant drawings e.g Civil, Structural, Architectural, existing services etc.			SUM
6	AS BUILT DRAWINGS Compilation of as built drawings for the complete electrical installation			SUM
7	EXTRACTS FROM THE PRINCIPAL CONTRACT Allowance for any costs associated with the requirements fo the Principal Contract preliminaries which may affect the selected sub contract.			SUM
	Carried Forward			R
	Section No. 5 ELECTRICAL WORK Bill No. 3 ITC			

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

	Brought Forward		R
8	MAINTENANCE Allow for a maintenance period of 3 months defects in equipment, material and workmanship but wear and tear and normal maintenance excluded		SUM
9	GUARANTEE PERIOD Allow for a 12 months guarantee period on all the electrical and electronic equipment but items such as lamps excluded		SUM
10	ALLOW FOR THE FOLLOWING ADDITIONAL ITEMS: Ablution facilities		SUM
11	Water & Electrical connections		SUM
12	Any time related items		SUM
13	Training of local residents re: the installation of cables, conduits, etc.		SUM
	<u>STRIPPING EXISTING INSTALLATION</u>		
	<u>Allow a sum amount for the stripping fo the electrical installation, liaison with the Client, handing over of all equipment to the Client, arranging for switching off of power supplies and make save of outlet points, etc</u>		
	<u>OTHER NECESSARY WORKS</u>		
	<u>All other works necessary to complete the installation in a satisfactory manner, and in accordance with the drawings, specification, SABS Code of Practice, the Local Authorities requirements, and to the Engineers satisfaction to include for items specified or swhon but not itemised in this bill.</u>		
14	Quality & Scope of Work, Spefication and design change	Item	
15	Contract Requirements	Item	
16	Company Head Office overhead costs	Item	
17	Compliance with OHS Regulations (latest version)	Item	
18	Programming and phasing of work on a live site	Item	
	<u>Complete installation: Access Control System</u>		
	Carried Forward		R
	Section No. 5 ELECTRICAL WORK Bill No. 3 ITC		

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Brought Forward		R
<u>NOTE: Tenderers are advised to study the specification before pricing the bill</u>		
<u>ACCESS CONTROL SYSTEM</u>		
<u>Design, supply, delivery, installation and commissioning of the complete Access Control System according to the relevant SABS specifications and as specified:</u>		
19	Controllers complete supplied, installed, commissioned with battery back up and required operating software as specified Supply	No 10
20	Install	No 10
21	Maglock Door Locks complete with door monitor contacts brackets supplied, installed and commissioned as specified Supply	No 20
22	Install	No 20
23	Biometric Fingerprint complete supplied, installed, commissioned with battery supplied, installed and commissioned as specified Supply	No 10
24	Install	No 10
25	Outside IP65 Biometric Fingerprint complete supplied, installed, commissioned with battery supplied, installed and commissioned as specified Supply	No 10
26	Install	No 10
27	Cat 5 Cable complete supplied and installed as specified for the networking of the controllers to the system computer Supply	m 400
28	Install	m 400
29	One to One Intercom system complete supplied, installed and commissioned as specified Supply	No 2
Carried Forward		R
Section No. 5 ELECTRICAL WORK Bill No. 3 ITC		

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R
30	Install	No	2
31	Cabling for the connection of the card readers, maglocks to the controllers complete supplied and installed in conduits as specified Supply	m	400
32	Install	m	400
33	Green Break Glass units complete supplied and installed as specified in the specification Supply	No	8
34	Install	No	8
35	Server Computer and Operator Station complete supplied, installed and commissioned as specified Supply		Item
36	Install		Item
37	System Operating Software complete supplied, installed and commissioned as required for the operation of the system as specified Supply		Item
38	Install		Item
39	Complete System Engineering, testing commissioning for the complete system as required for the operation of the system as specified		Item
40	Six (6) sets of Complete Operating and Maintenance manual for the system as specified	Sets	6.0
41	Six (6) sets of Complete As built drawings for the complete system as specification	Sets	6.0
42	Allowance for any items required for the complete system operation but not listed above as per the specification required attach a list of equipment shall be submitted if this item is priced Supply		SUM
43	Install		SUM
44	1 x IXP400 System Controller		Item
Carried Forward			R
Section No. 5 ELECTRICAL WORK Bill No. 3 ITC			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

	Brought Forward			R
45	1 x Impronet Engine	Item		
46	7 x TP Link Web Managed 24 Port 10/100/1000 Gigabit Switch	Item		
47	14 x 1000Mbps SFP module	Item		
48	Complete training course for operators, the tendered shall submit full details of the proposed training course for approval by the Client	Item		
	<u>Complete installation: CCTV Camera System</u>			
	<u>NOTE: Tenderers are advised to study the specification before pricing the bill.</u>			
	<u>CCTV CAMERA SYSTEM INSTALLATION</u>			
	<u>Design, supply, delivery, installation and commissioning of the complete CCTV Camera System installation according to the relevant SABS specifications and as specified:</u>			
49	16 Channel Digital Video Recorder complete supplied installed and commissioned as specified with complete set of operating software Supply	No	3	
50	Install	No	3	
51	24" LCD Colour Monitors complete supplied installed and commissioned as specified with complete set of operating software Supply	No	5	
52	Install	No	5	
53	3 Megapixel Real-time 360 °indoor Dome Network Camera vandal proof camera complete supplied, installed and commissioned as specified for the complete system Supply	No	15	
54	Install	No	15	
	Carried Forward			R
	Section No. 5 ELECTRICAL WORK Bill No. 3 ITC			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

Brought Forward			R
55	3 Megapixel Day & Night Indoor Dome Network Camera complete supplied installed, and commissioned as specified for the complete system Supply	No	20
56	Install	No	20
57	24 V ac 1Amp Camera Power Supplies according to the camera suppliers / manufacturers specifications complete supplied installed and commissioned a specified Supply	No	30
58	Install	No	30
59	Medium Outdoor Aluminum Camera housing Beige IP 65 complete supplied installed and commissioned as specified Supply	No	10
60	Install	No	10
61	Indoor / Outdoor Fixing Brackets Beige Wall Mounted for the cameras complete supplied and installed with the cameras Supply	No	20
62	Install	No	20
63	Pin Hole Colour/Mono Super High Resolution Cameras complete supplied installed and commissioned as specified for the complete system Supply	No	2
64	Install	No	2
65	24 V ac 1Amp Camera Power Supplies according to the camera suppliers / manufacturers specifications complete supplied installed and commissioned a specified Supply	No	2
66	Install	No	2
67	Pin Hole Camera housing IP 65 complete supplied installed and commissioned as specified Supply	No	2
68	Install	No	2
Carried Forward			R
Section No. 5 ELECTRICAL WORK Bill No. 3 ITC			

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

		Brought Forward		R	
69	Fixing Brackets Beige Wall/ceiling Mounted for the pin hole cameras complete supplied and installed with the cameras Supply	No	2		
70	Install	No	2		
71	Fibre Optic Video Signal cabling complete supplied and installed Supply	m	1 000		
72	Install	m	1 000		
73	Fibre Optic TX RX for CCTV Video Signal cabling connections to equipment complete supplied and installed Supply	No			Rate only
74	Install	No			Rate only
75	Fibre Optic Cable Splicing complete supplied and installed Supply	No	32		
76	Install	No	32		
77	40" LED Colour Monitors complete supplied installed and commissioned as specified with complete set of operating software Supply	No	2		
78	Install	No	2		
79	RG 59 communication Cable with BNC Connectors Supply	m			Rate only
80	Install	m			Rate only
81	16 Way video surge suppression unit, rack mounted Supply	No			Rate only
82	Install	No			Rate only
83	Matrix switcher complete with key board and joy stick Supply	No			Rate only
84	Install	No			Rate only
		Carried Forward		R	
Section No. 5 ELECTRICAL WORK Bill No. 3 ITC					

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward		R	
85	Wiring of a Matrix switcher with RG 17 cable complete Supply	No			Rate only
86	Install	No			Rate only
87	19" 32U Floor Standing Rack Supply	No	1		
88	Install	No	1		
89	Allowance for any items required for the complete system but not listed above the tenderer shall submit a detail itemised list if this item is priced			Item	
90	Complete system engineering testing and commissioning			Item	
91	Remote viewing station			Item	
92	Six Sets of maintenance and operating manuals	Sets	6.0		
93	As Built drawings of the complete system installation	Sets	6.0		
94	Complete training course for operators - submit full details			Item	
95	Provision of a complete detailed itemised list of material offered must			Item	
<u>ITC INSTALLATION</u>					
96	ITC Installation Meganet CAT6 Network Infrastructure MegaNet CAT6 premise cable	No	2 500		
97	MegaNet 25 x 50 Outlets CAT5e	No	40		
98	MegaNet 50 x 50 Collar	No	40		
99	MegaNet 25x50 blank	No	40		
100	MegaNet CAT6 1meter data patch lead with labels	No	40		
101	MegaNet CAT6 3,0m data patch lead with labels	No	40		
102	Accessories and fixing kits	No	40		
103	Installation, termination and testing	No	1		
		Carried Forward		R	
Section No. 5 ELECTRICAL WORK Bill No. 3 ITC					

**MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH**

	Brought Forward		R
104	MegaNet CAT6 24Way Patch panel MegaNet CAT6 24Way Patch panel	No	2
105	1U Brush panel	No	5
106	4Core HDD Multimode Fibre Infrastructure 4Core HDD Multimode Fibre cable	No	100
107	24Port LC Fibre Patch Panel	No	2
108	Entry glad	No	1
109	Fibre management kit	No	1
110	LC Multimode Midcoupler	No	4
111	LC Multimode Unjacketed pigtails	No	8
112	2meter LC/LC duplex OM3 patch leads	No	4
113	Accessories and Fixing kits	No	1
114	Multimode Splicing and OTDR Test	No	8
115	Installation	No	1
116	12U Swingframe Network Cabinet 12U Swingframe Network Cabinet	No	1
117	Single Fan unit	No	1
118	5Way Power Duct Low cost PVC	No	1
119	Installation	No	1
120	PoE TP Link Web Managed Network Switch PoE TP Link Web Managed 48 Port 10/100/1000 Gigabit Switch	No	1
121	1000Mbps SFP module	No	2
122	Rubytech 24Port Fibre SFP L 2 Plus Managed Gigabit Switch	No	2
123	1000Mbps SFP module	No	6
	Carried Forward		R
	Section No. 5 ELECTRICAL WORK Bill No. 3 ITC		

MOTSWEDI CHC
 BILL OF QUANTITIES
 CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
 NORTH WEST DEPARTMENT OF HEALTH

		Brought Forward			R
	<u>Supply and Install 30kVA UPS with 2 hour battery backup Complete with all accessories including the isolator and the breaker</u>				
124	PYRAMID DSP 60KVA UPS	No	1		
125	BC 60 BATTERY CABINET	No	1		
126	100A/H BATTERY DEEP CYCLE	No	62		
127	BATTERY LINKS	No	1		
128	DELIVERY & COMM	No	1		
	Carried Forward to Summary of Section No.				R
	Section No. 5 ELECTRICAL WORK Bill No. 3 ITC				

MOTSWEDI CHC
BILL OF QUANTITIES
CONSTRUCTION OF NEW COMMUNITY HEALTH CARE CENTRE
NORTH WEST DEPARTMENT OF HEALTH

Section No	<u>FINAL SUMMARY</u>	Page No	Amount R
1	PRELIMINARIES	35	
2	BUILDING WORKS	97	
3	EXTERNAL WORK	119	
4	MECHANICAL WORK	153	
5	ELECTRICAL WORK	191	
	Subtotal		R
	ADD: Value added Tax at 15%		R
	TOTAL CARRIED TO FORM OF TENDER		R