

Item No		Quantity	Rate	Amount
	<u>BILL NO 1</u>			
	<u>PRELIMINARIES</u>			
	<u>BUILDING AGREEMENT AND PRELIMINARIES</u>			
	The JBCC Principal Building Agreement (March 2014 Edition 6.1) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described			
	The JBCC Principal Building Agreement contract data form an integral part of this agreement			
	The ASAQs Preliminaries (March 2014 edition) published by the Association of South African Quantity Surveyors for use with the JBCC Principal Building Agreement shall be deemed to be incorporated in these bills of quantities			
	The contractor is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause			
	The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this agreement such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents			
	Where any item is not relevant to this agreement such item is marked N/A (signifying "not applicable")			
	<u>PREAMBLES FOR TRADES</u>			
	The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
	Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the Model Preambles			
	Carried Forward		R	
	Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities			

Brought Forward

R

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

PRICING OF PRELIMINARIES

Should the **contractor** select Option A in terms of clause 26.9.4 of the **contract data** for the purpose of adjustment of these **preliminaries**, the amount entered into the amount column in these **preliminaries** is to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

SECTION A: PRINCIPAL BUILDING AGREEMENT

Interpretation (A1-A7)

1 Clause 1.0 - Definitions and interpretation

1.2.6 Pricing of bills of quantities

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, imposts, establishment charges, overheads, profit and all other obligations arising out of the **agreement**

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

Prices for all plant, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary

1.2.7 Legal status of contractor

If the **contractor** constitutes a joint venture consortium or other unincorporated grouping of two or more persons then:

Carried Forward

R

Bill No. 1

PRELIMINARIES

SARS Warehouse in Musina

Refurbishment Works Provisional Bills Of Quantities

<p style="text-align: right;">Brought Forward</p> <ol style="list-style-type: none"> These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement These persons shall notify the employer of their leader who has authority to bind the contractor and each of these persons The contractor shall not alter its composition or legal status without the prior written consent of the employer <p>F:..... V:..... T:.....</p> <p>2 Clause 2.0 - Law, regulations and notices</p> <p>2.6 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 Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993. 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>The contractor shall:</p> <ol style="list-style-type: none"> Comply with the health and safety specification for the works Prepare and agree with the health and safety consultant the health and safety plan for the works Co-operate with the health and safety consultant in all respects Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification Conform to the conditions contained in the employer's safety specification <p style="text-align: right;">Carried Forward</p> <p>Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities</p>	<p style="text-align: center;">Item</p>	<p style="text-align: center;">R</p>	
--	---	--------------------------------------	--

	Brought Forward		R	
3	Clause 3.0 - Offer and acceptance F:..... V:..... T:.....	Item		
4	Clause 4.0 - Assignment and cession F:..... V:..... T:.....	Item		
5	Clause 5.0 - Contract documents F:..... V:..... T:.....	Item		
6	Clause 6.0 - Employer's agents F:..... V:..... T:.....	Item		
7	Clause 7.0 - Design responsibility F:..... V:..... T:..... <u>Insurance and security (A8-A11)</u>	Item		
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 - Security F:..... V:..... T:..... <u>Execution (A12 - A17)</u>	Item		
12	Clause 12.0 - Duties of the parties Clause 12.2.18 - Notice boards			
	Carried Forward		R	
	Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities			

Brought Forward			R	
	The contractor shall erect in a position approved by the principal agent , maintain and remove at completion a notice board as recommended by the South African Institute of Architects listing the names and logos of the employer , the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected [12.2.18]			
	F:..... V:..... T:.....	Item		
13	Clause 13.0 - Setting out			
	F:..... V:..... T:.....	Item		
14	Clause 14.0 - Nominated subcontractors			
	F:..... V:..... T:.....	Item		
15	Clause 15.0 - Selected subcontractors			
	F:..... V:..... T:.....	Item		
16	Clause 16.0 - Direct contractors			
	F:..... V:..... T:.....	Item		
17	Clause 17.0 - Contract instructions			
	17.6 Site Instructions			
18	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. Instructions recorded in the site instruction book will be scanned by the contractor and electronically distributed on a regular basis to the Principal Agent, Quantity Surveyor and other relevant consultants			
	F:..... V:..... T:.....	Item		
	<u>Completion (A18 - A24)</u>			
19	Clause 18.0 - Interim completion			
	F:..... V:..... T:.....	Item		
20	Clause 19.0 - Practical completion			
	F:..... V:..... T:.....	Item		
Carried Forward			R	
Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

	Brought Forward		R	
21	Clause 20.0 - Sectional completion F:..... V:..... T:.....	Item		
22	Clause 21.0 - Defects liability period and final completion F:..... V:..... T:.....	Item		
23	Clause 22.0 - Latent defects liability period F:..... V:..... T:.....	Item		
24	Clause 23.0 - Revision of date for practical completion F:..... V:..... T:.....	Item		
25	Clause 24.0 - Penalty for late or non-completion F:..... V:..... T:..... <u>Payment (A25 - A27)</u>	Item		
26	Clause 25.0 - Payment F:..... V:..... T:.....	Item		
27	Clause 26.0 - Adjustment of the contract value and final account F:..... V:..... T:.....	Item		
28	Clause 27.0 - Recovery of expense and/or loss F:..... V:..... T:..... <u>Suspension and termination (A28 - A29)</u>	Item		
29	Clause 28.0 - Suspension by the contractor F:..... V:..... T:.....	Item		
30	Clause 29.0 - Termination F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities			

	Brought Forward		R	
	<u>Dispute resolution (A30)</u>			
31	Clause 30.0 - Dispute resolution F:..... V:..... T:.....	Item		
32	Agreement 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		
33	Contract data Before submission of his tender the contractor is to complete the tenderer's selection in the contract data <u>SECTION B: PRELIMINARIES</u> <u>Definitions and Interpretation (B1)</u>			
34	Clause 1.1 - Definitions F:..... V:..... T:.....	Item		
35	Clause 1.2 - Interpretation F:..... V:..... T:.....	Item		
	<u>Documents (B2)</u>			
36	Clause 2.1 - Checking of documents F:..... V:..... T:.....	Item		
37	Clause 2.2 - Provisional bills of quantities F:..... V:..... T:.....	Item		
38	Clause 2.3 - Availability of construction information F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities			

Brought Forward			R	
<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>Samples, shop drawings and manufacturer's instructions (B4)</u>				
42	Clause 4.1 - Samples of materials F:..... V:..... T:.....	Item		
43	Clause 4.2 - Workmanship samples F:..... V:..... T:.....	Item		
44	Clause 4.3 - Shop drawings F:..... V:..... T:.....	Item		
45	Clause 4.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item		
<u>Deposits and fees (B5)</u>				
46	Clause 5.1 - Deposits and fees F:..... V:..... T:.....	Item		
<u>Temporary services (B6)</u>				
47	Clause 6.1 - Water F:..... V:..... T:.....	Item		
48	Clause 6.2 - Electricity F:..... V:..... T:.....	Item		
Carried Forward			R	
Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

	Brought Forward		R	
49	Clause 6.3 - Ablution and welfare facilities			
	F:..... V:..... T:.....	Item		
50	Clause 6.4 - Communication facilities			
	F:..... V:..... T:.....	Item		
	<u>Prime cost amounts (B7)</u>			
51	Clause 7.1 - Responsibility for prime cost amounts			
	F:..... V:..... T:.....	Item		
	<u>Attendance on subcontractors (B8)</u>			
52	Clause 8.1 - General attendance			
	F:..... V:..... T:.....	Item		
53	Clause 8.2 - Special attendance			
	F:..... V:..... T:.....	Item		
	<u>General (B9)</u>			
54	Clause 9.1 - Protection of the works			
	F:..... V:..... T:.....	Item		
55	Clause 9.2 - Protection/isolation of existing/sectionally occupied works			
	F:..... V:..... T:.....	Item		
56	Clause 9.3 - Security of the works			
	F:..... V:..... T:.....	Item		
57	Clause 9.4 - Notice before covering work			
	F:..... V:..... T:.....	Item		
58	Clause 9.5 - Disturbance			
	F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Bill No. 1			
	PRELIMINARIES			
	SARS Warehouse in Musina			
	Refurburshment Works Provisional Bills Of Quantities			

<p style="text-align: right;">Brought Forward</p> <p>10.5 - Inspection of adjoining properties [3.3]</p> <p>F:..... V:..... T:.....</p> <p>10.6 - Water [6.1]</p> <p>Option B</p> <p>F:..... V:..... T:.....</p> <p>10.7 - Electricity [6.2]</p> <p>Option B</p> <p>F:..... V:..... T:.....</p> <p>10.8 - Ablution and welfare facilities [6.3]</p> <p>Option A</p> <p>F:..... V:..... T:.....</p> <p>10.9 - Communication facilities [6.4]</p> <p>F:..... V:..... T:.....</p> <p>10.10 - Protection of the works [9.1]</p> <p>F:..... V:..... T:.....</p> <p>10.11 - Protection / isolation of existing / sectionally occupied works [9.2]</p> <p>N/A</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;">Carried Forward</p> <p>Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities</p>	<p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p>	<p>R</p>	
		R	

R

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 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

Item

The **contractor** shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution during the **construction period** due *inter alia* to noise, artificial light, wind-blown sand, dust, deposits of mud, etc

Item

SECTION C: SPECIFIC PRELIMINARIES

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 doing the work and shall deliver same to the **principal agent** on the **final completion** of the contract

The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of **final completion** and that any **defects** that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written **notice** to do so

R

Bill No. 1
PRELIMINARIES
SARS Warehouse in Musina
Refurbishment Works Provisional Bills Of Quantities

Brought Forward			R
	<p>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</p> <p>F:..... V:..... T:.....</p>	Item	
65	<p>C2 Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the costs of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>There will be days in the week and over week ends when access to the site will be restricted. Further to this will there be days that no construction will be allowed. Days such as UP international student day and UP first year welcome day.</p> <p>F:..... V:..... T:.....</p>	Item	
66	<p>C3 Co-operation 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 final building cost does not exceed the budget</p> <p>F:..... V:..... T:.....</p>	Item	
67	<p>C4 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	
Carried Forward			R
<p>Bill No. 1 PRELIMINARIES SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities</p>			

Brought Forward

R

68 **C5 Confidentiality**

The **contractor** undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all **subcontractors** and suppliers. Such information shall not be used in any way except in connection with the execution of the **works**

No information regarding this project shall be published or disclosed without the prior written consent of the **employer**

F:..... V:..... T:.....

Item

69 **C6 Media releases**

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**

The **contractor** together with his **subcontractors** shall not, without the prior written consent of the **employer**, cause any statement or advertisement to be printed, screened or aired by the media

F:..... V:..... T:.....

Item

SUMMARY OF CATEGORIES

Category : Fixed R.....

Category : Value R.....

Category : Time R.....

Carried to Summary

R

Bill No. 1

PRELIMINARIES

SARS Warehouse in Musina

Refurbishment Works Provisional Bills Of Quantities

Brought Forward

R

Structural cracks repair

The crack repair procedure for brick walls

1. Remove 350mm wide of plaster on both sides of the crack along the entire length of crack.
2. Remove about 70mm of mortar between bricks for 350mm wide both sides of cracks
3. Clean gap, insert 600mm long R6 rod into the gap and groat with sikadur 42 7A or similar approved fluid epoxy resin grout.
4. Repeat (2) and (3) above for every 4th brick course from top to bottom direction of the crack ensuring that the new R6 rod is installed and void grouted before proceeding to the next brick course void cut and installation
5. After completion of every 4th brick course repair installation, wait for minimum 12 hours before commencing to repeat (2) and (3) between the previously installed rods of (5) above.

Outside the building brick skin

6. Repeat (1) to (5) for cracks also visible ton outside face of wall after completion of (5) with A minimum 12 hour waiting time between (5) and (6)

General

The contractor shall carry out the whole of the work with as little mess, dust and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall keep damp elements or areas creating dust where reasonable and appropriate. He shall further provide proper protection and provide and erect any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent, and remove when directed

The contractor will be required to take all dimensions affecting the existing building on the site and he will be held solely responsible for the accuracy of all such dimensions

Carried Forward

R

Bill No. 2

ALTERATIONS

SARS Warehouse in Musina

Refurburshment Works Provisional Bills Of Quantities

Brought Forward				R
<p>Where existing screeds are described to be prepared for new floor finishes or coverings, the screeds are to be scraped clean of loose materials and glue and vacuumed, cleaned and treated with one coat "Pavelite Bond" and levelled with two coats "Pavelite" screed levelling compound all in accordance with "Marley Technical Bulletin" for floor coverings</p> <p>Any water supply pipes and other piping that may be met with and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent</p> <p><u>TEMPORARY BARRIERS, SCREENS, ETC</u></p> <p><u>Temporary barriers, screens, etc including removal</u></p>				
1	<p>Hoardings 2.50m high to sides of buildings on brick pavings formed of suitable steel or timber framing covered on one side with 22mm shutterboard panels and finished with two coats emulsion paint on one side, including corners, ends, one pedestrian gate approx 0.90 x 2.10m high and one vehicle gate approx 0.90 x 2.10m high access doors making good pavings, etc</p>	m	175	
<u>REMOVAL OF EXISTING WORK</u>				
<u>Break up and remove brick pavings</u>				
2	50mm Thick pavings on sand bed	m2	21	
<u>Break down and remove masonry</u>				
3	110mm Brick walls	m2	321	
4	230mm Brick walls	m2	230	
<u>Carefully take out and remove doors, windows, including thresholds, sills, etc, from brickwork to be demolished, set aside for re-use and later refix in similar new position</u>				
5	Glazed steel window 800 x 1000 mm high from one brickwall	No	14	
6	Steel single door and steel frame not exceeding 2.5m2 from half brickwall	No	19	
Carried Forward				R
<p>Bill No. 2 ALTERATIONS SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities</p>				

Brought Forward			R	
<u>Carefully take out doors, windows, etc, from brickwork to be retained ,including thresholds, sills, etc, set aside for re-use and later refix in similar new position</u>				
7	Steel single door and steel frame not exceeding 2.5m2 from half brickwall	No	5	
8	Steel single door and steel frame not exceeding 2.5m2 from one brickwall	No	3	
<u>Carefully take out and remove doors, windows, etc, including thresholds, sills, etc and building up openings in brick walls, including making good cement plaster on both sides, set aside for re-use and later refix in similar new position (making good paintwork elsewhere)</u>				
9	Steel single door and frame 0.813 x 2.032m high overall from 110mm brick wall	No	2	
10	Steel single door and frame 0.88 x 2.06m high overall from 230mm brick wall	No	1	
<u>Carefully take out and remove sanitary fittings, including cutting off, disconnecting and blanking off short lengths of piping and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u>				
11	Stainless steel water closet pan with complete conciled flushing cistern	No	25	
12	Stainless steel wash hand basin from brickwalls/concrete, including short lengths of piping, etc.	No	7	
13	Stainless steel shower head and fittings including piping, etc	No	28	
14	Wall fitted stainless steel fitting size and type to be verified on site	No	11	
<u>Take out and remove ironmongery</u>				
15	Mortice lockset from windows with bars	No	29	
<u>OPENINGS THROUGH EXISTING WALLS, ETC</u>				
Carried Forward			R	
Bill No. 2 ALTERATIONS SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

Brought Forward			R	
<u>Alter openings</u>				
16	Alter opening in 230mm brick wall to form opening for new steel frame and galvanised sheeting size 3.0 x 1.20m high overall by break out brickwork on both sides and bottom, including lintel and making good plaster on one side and into reveals and face brickwork on other side and into reveals and with 20MPa concrete threshold with steel trowelled finish (new steel frame and galvanised sheeting and make good paintwork elsewhere)	No	1	
17	Alter opening in 230mm brick wall where size 2.32 x 1.50m high steel window removed to form opening for new aluminium window and frame 2.30 x 0.40m high overall by break out brickwork on both sides and bottom, including making good plaster on one side and into reveals and face brickwork on other side and into reveals and with 20MPa concrete threshold with steel trowelled finish (new door and frame and make good paintwork elsewhere)	No	1	
<u>Break out for and form plain openings through walls, including prestressed concrete lintels, make good plaster on both sides and into reveals and with 20MPa concrete thresholds with steel trowelled finish</u>				
18	Opening 1049 x 2100mm high through 230mm brick wall	No	1	
19	Opening 1260 x 2100mm high through 230mm brick wall	No	1	
20	Opening 1800 x 2100mm high through 230mm brick wall	No	4	
21	Opening 2500 x 2100mm high through 230mm brick wall	No	1	
22	Opening 3000 x 2100mm high through 230mm brick wall	No	1	
<u>BUILDING UP OPENINGS</u>				
<u>Build up plain openings, including making good plastered wall on both sides (make good paintwork elsewhere)</u>				
23	Opening 1.20 x 2.87m high in 230mm brick wall	No	1	
24	Opening 1.40 x 2.87m high in 230mm brick wall	No	1	
<u>CUT THROUGH FLOORS AND CEILINGS</u>				
Carried Forward			R	
Bill No. 2 ALTERATIONS SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

Brought Forward			R	
<u>Cut through</u>				
25	100mm Thick concrete surface beds for 600mm wide concrete wall footings and make good concrete to sides of new 110mm brick lining	m	8	
26	100mm Thick concrete surface beds for 700mm wide concrete wall footings and make good concrete to sides of new 220mm brick lining	m	40	
<u>PREPARATORY WORK TO EXISTING SURFACES</u>				
<u>Preparatory work to existing surfaces</u>				
27	Existing walls to be sanded, cracks and holes to be stopped and walls to be prepared smooth to receive paint (paint elsewhere).	m2	611	
<u>MAKE GOOD FINISHES, ETC</u>				
<u>Make good masonry</u>				
28	Faces of walls where 110mm brick cross walls were removed	m	15	
29	Faces of walls where 230mm brick cross walls were removed	m	11	
<u>Make good screeds</u>				
30	Floors where 110mm walls were removed	m	135	
31	Floors where 230mm walls were removed	m	44	
Carried to Summary			R	
Bill No. 2				
ALTERATIONS				
SARS Warehouse in Musina				
Refurbishment Works Provisional Bills Of Quantities				

Item No		Quantity	Rate	Amount
	<u>BILL NO 3</u>			
	<u>EARTHWORKS</u>			
	For preambles see "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>General</u>			
	The contractor shall carry out the whole of the work with as little mess, dust and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall keep damp elements or areas creating dust where reasonable and appropriate. He shall further provide proper protection etc that may be necessary during the progress of the works, all to the satisfaction of the principal agent			
	<u>Material of a more difficult character</u>			
	Should the contractor consider that any of the excavations are more difficult in character than excavations in "earth" he shall immediately notify the principal agent in writing. Failing such notification the excavations shall be deemed to be in "earth" and shall be measured and valued accordingly			
	The contractor may use any method he chooses to excavate any class of material, but his chosen method of excavation shall not determine the classification of the material excavated			
	<u>Excavations</u>			
	No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling			
	<u>Keeping excavations free of water</u>			
	No water shall be allowed to stand in any part of the excavations. The excavations shall be protected from flooding and water in the excavations, whether as a result of flooding, rain or other causes and shall immediately be removed by baling, pumping or other means			
	Carried Forward		R	
	Bill No. 3 EARTHWORKS SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities			

Brought Forward

R

Disposal of excavated material

All excavations shall be deemed to include disposal of excavated material by setting aside for use as filling or depositing on site within 100m of the perimeter of the building and spreading and leveling

Carting away of excavated material

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

Filling

Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material

Tenderers are to allow in the filling rates for testing in accordance with SABS 1200DM

Tests

1. During the progress of the work tests shall be conducted on materials and workmanship to ensure compliance with the requirements of the specifications
2. The cost of testing undertaken by the contractor in terms of his obligation under Clause 7.2 in SABS 1200 DM and Clause 7.2.1 in SABS 1200 ME for the purposes of process control, including taking of samples, reinstating where samples have been taken and all testing equipment, labour, materials, etc shall be included in the rates tendered for the various items of work supplied and will not be paid separately. Those tests measured in the bill of quantities are for extra tests required by the engineer.
3. The above mentioned testing as described in note 2 includes density tests, indicator tests - reflecting grading modules and all Atterberg Limits (PI's etc), as well as CBR (Californian Bearing Ratio) tests as prescribed and specified in SABS 1200 DM and ME
4. The engineer shall be entitled to take or order extra samples and tests on materials or workmanship, as required. The contractor shall be paid at the appropriate rates for these extra tests provided that such tests indicate compliance with the

Carried Forward

R

Bill No. 3

EARTHWORKS

SARS Warehouse in Musina

Refurbishment Works Provisional Bills Of Quantities

Brought Forward			R	
required specifications, otherwise the cost shall be borne by the contractor				
<u>EXCAVATIONS</u>				
<u>Excavation in earth not exceeding 2m deep</u>				
1	Trenches	m3	19	
<u>EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER</u>				
<u>Extra over excavations in earth for excavations in</u>				
2	Soft rock	m3	2	
3	Hard rock	m3	1	
<u>SUNDRIES</u>				
<u>Extra over all excavations for carting away</u>				
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	14	
<u>FILLING ETC</u>				
<u>Earth filling of minimum G5 material supplied by the contractor, compacted in 150mm thick layers to 95% Mod AASHTO density</u>				
5	Under floors, ramps, etc	m3	5	
<u>Compaction of surfaces</u>				
6	Prepare ground surface by ripping 150mm layer of ground and recompact to 93% modified AASHTO density	m2	66	
<u>Prescribed density tests on filling</u>				
7	Modified AASHTO density test	No	2	
<u>WEED KILLERS, INSECTICIDES, ETC</u>				
Carried Forward			R	
Bill No. 3 EARTHWORKS SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO 4</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p>For preambles see "Model Preambles for Trades"</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 SANS 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 principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)</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>Formwork to soffits of solid slabs shall be deemed to be for slabs not exceeding 250mm thick unless otherwise described</p> <p>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</p> <p>Rates for all formwork shall be deemed to include propping</p>			
	<p style="text-align: right;">Carried Forward</p> <p>Bill No. 4 CONCRETE, FORMWORK AND REINFORCEMENT SARS Warehouse in Musina Refurbishment Works Provisional Bills Of Quantities</p>		R	

Brought Forward			R	
<p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed 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"</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15MPa/19mm concrete</u></p>				
1	Surface blinding under footings	m3	2	
<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p>				
2	Strip footings	m3	9	
3	Ramps	m3	11	
4	Steps	m3	0.4	
<u>TEST CUBES</u>				
5	Making and testing 150 x 150 x 150mm concrete strength test cubes	No	2	
<u>ROUGH FORMWORK</u>				
<u>Rough formwork to sides</u>				
6	Ramps	m2	6	
7	Steps	m2	2	
<u>REINFORCEMENT</u>				
<u>High tensile steel reinforcement to structural concrete work</u>				
8	Various Diameter bars	t	0.56	
<u>Fabric reinforcement</u>				
9	Type 888 in concrete ramps etc	m2	31	
Carried Forward			R	
<p>Bill No. 4 CONCRETE, FORMWORK AND REINFORCEMENT SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities</p>				

Item No		Quantity	Rate	Amount
	<u>BILL NO 5</u>			
	<u>MASONRY</u>			
	For preambles see "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>BRICKWORK</u>			
	<u>Linings to concrete</u>			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wall ties			
	<u>Hollow walls</u>			
	Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course and above lintels of the external skin open as a weep hole			
	<u>Lintels</u>			
	Lintels shall bear at least 250mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	<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>SAMPLES</u>			
	Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site			
	<u>Joints</u>			
	Pavings, etc, shall, except for crazy paving, be laid with continuous joints in both directions			
	Carried Forward		R	
	Bill No. 5 MASONRY SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities			

Brought Forward			R	
<u>Cutting</u>				
Descriptions of all pavings shall be deemed to include for all straight cutting and circular cutting around pipes, etc not exceeding 150mm diameter				
<u>BRICKWORK</u>				
<u>FOUNDATIONS</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar</u>				
1	230mm Walls	m2	19	
<u>SUPERSTRUCTURE</u>				
<u>Brickwork of NFP bricks (7 MPa nominal compressive strength) in class II mortar</u>				
2	110mm Walls	m2	18	
3	230mm Walls	m2	117	
<u>BRICKWORK SUNDRIES</u>				
<u>Brickwork in NFP brick in class II mortar in building up openings, including bonding new to existing</u>				
4	Cutting toothing and bonding new brickwork to existing	m2	5	
<u>Brickwork reinforcement</u>				
5	75mm Wide reinforcement built in horizontally	m	53	
6	150mm Wide reinforcement built in horizontally	m	401	
<u>Prestressed fabricated concrete lintels including necessary temporary supports:</u>				
7	110 x 70mm Lintels in lengths not exceeding 3m	m	15	
<u>Joint forming material in movement joints, etc</u>				
8	10 x 10mm In joints in vertical surfaces, including raking out joint filler as necessary	m	88	
Carried to Summary			R	
Bill No. 5				
MASONRY				
SARS Warehouse in Musina				
Refurburshment Works Provisional Bills Of Quantities				

Item No		Quantity	Rate	Amount
	<u>BILL NO 7</u>			
	<u>CARPENTRY AND JOINERY</u>			
	For preambles see "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Joinery</u>			
	Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to masonry or concrete			
	<u>Decorative laminate finish</u>			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>SKIRTINGS</u>			
	<u>Wrought meranti</u>			
1	18 x 108mm Standard skirting, code: FS-02	m	128	
	<u>DOORS, ETC</u>			
	<u>Take delivery, store, etc all as per clause 7.1 of the ASAQS Preliminaries and hang to timber or steel frames</u>			
2	Single steel door not exceeding 2.5m2	No	2	
	<u>FLUSH DOORS</u>			
	<u>Masonite honeycomb hollow core door with lock slot, suitable for painting and hung to suit existing frames</u>			
3	40mm Door 813 x 2032mm high (D01)	No	3	
4	40mm Door 813 x 2032mm high (D02)	No	4	
	Carried Forward		R	
	Bill No. 7 CARPENTRY AND JOINERY SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities			

[illegible]

Item No		Quantity	Rate	Amount
	<u>BILL NO 9</u>			
	<u>IRONMONGERY</u>			
	For preambles see "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<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			
	AS Anodised silver			
	AB Anodised bronze			
	AG Anodised gold			
	ABL Anodised black			
	PB Polished brass			
	PL Polished and lacquered			
	PT Epoxy coated			
	SD Sanded			
	Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish			
	<u>IRONMONGERY FIXED TO DOORS, ETC.</u>			
	<u>HINGES, BOLTS, ETC.</u>			
	<u>"Ironware"</u>			
1	"3 x IW 3040" 100 x 44mm Sinkless hinge.	No	9	
	<u>LOCKS</u>			
	<u>"Dorma"</u>			
2	"D036S" Multi Lever Sash Lock	No	3	
3	"D036S" Multi Lever Sash Lock. IW dust excluding socket and including "IW4023" 150mm flush lever bolt	No	2	
	Carried Forward		R	
	Bill No. 9			
	IRONMONGERY			
	SARS Warehouse in Musina			
	Refurburshment Works Provisional Bills Of Quantities			

Brought Forward			R	
	<u>"Ironware"</u>			
4	"IW 2031" Dead Lock.	No	1	
	<u>"UL listed panic & emergency exit hardware"</u>			
5	Heavy duty 20 mm stainless steel deadlocking latch ensures automatic re-locking when the door closes, and withstands 600 Kg pressure	No	8	
	<u>"Union"</u>			
6	51mm 3122-51 Padlock	No	58	
	<u>HANDLES</u>			
	<u>"Ironware"</u>			
7	"IW 1926" brushed Stainless Steel Handle sets	Sets	5	
8	"IW Calini 1019" through fix Lever brushed Stainless Steel Handle sets	Sets	2	
	<u>DOOR CLOSERS</u>			
	<u>"Union".</u>			
9	Geze TS4000G da EN1-6 delayed action slide channel door closer silv	No	4	
	<u>PUSH PLATES AND KICK PLATES</u>			
	<u>"Union".</u>			
10	200mm high x2mm thick brushed stainless steel kick plates fitted bothsides, 15mm gap around edges to door leaf.	No	4	
	<u>BATHROOM FITTINGS</u>			
	<u>"Ironware"</u>			
11	Stainless steel Dog leg side rail product code: DL2	No	1	
Carried Forward			R	
Bill No. 9 IRONMONGERY SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

Brought Forward			R	
<u>"Franke"</u>				
12	Franke stainless double toilet roll holder, satin finish, 2 roll capacity, with and including cylinder lock with Franke standard key and mounting kit code STR X 672	No	5	
13	Franke waste bin stainless steel satin finish code STRX607 (359731)	No	5	
14	Franke soap dispenser chromium plated brass finish code STR X618	No	3	
15	Franke automated soap dispenser wall mounted code HF950SD	No	3	
16	Franke paper towel dispenser wall mounted code STRX600	No	5	
17	Franke sanitary towel loose standing bin code STRX611	No	5	
18	Franke Sanitary wall mounted bag dispenser code STRX615	No	3	
19	Franke small wall mounted waste bin code STRX605	No	5	
20	Franke automated wall mounted hands free dryer code HF2400HD	No	3	
<u>"ITS Hygiene Premier"</u>				
21	ITS Hygiene premier vortex stainless steel wall mounted seat sanitizer	No	5	
22	ITS Hygiene premeir range wall mounted air spray mist dispenser	No	5	
<u>SUNDRIES</u>				
<u>"Ironware"</u>				
23	"IW 1306" Grab-Rail (back to back through fix to both sides of the door) - fitted horizontally @ 800mm AFFL	No	1	
24	"IW Calini 1904-24SS" Screw type rose brushed stainless steel	No	7	
25	"2x IW 5000" SS Cylindrical door stop	No	2	
Carried to Summary			R	
Bill No. 9				
IRONMONGERY				
SARS Warehouse in Musina				
Refurbishment Works Provisional Bills Of Quantities				

Item No		Quantity	Rate	Amount
	BILL NO 10			
	<u>METALWORK</u>			
	For preambles see "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</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 masonry or concrete			
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>GALVANISED STEEL SCREENS AND GATES</u>			
	<u>Welded and bolted safe storage screens and gates</u>			
1	50 x 2.5mm Galvanised diamond mesh covering in 2.10m high panels, tied with 1.6mm galvanised binding wire to framing	m2	89	
	<u>PRESSED STEEL DOOR FRAMES</u>			
	<u>1.2mm Double rebated frames suitable for 110mm walls</u>			
2	Frame for door 0.81 x 2.03m high	No	1	
	<u>GALVANISED STEEL WINDOWS, DOORS, ETC</u>			
	<u>Purpose made windows with 50 x 50mm steel frame including galvanised sheeting</u>			
3	Window 3.0 x 1.20m high (W02)	No	1	
	<u>STEEL BURGLAR BARS, INCLUDING PAINTING</u>			
	<u>Burglar bars formed of 15.88 x 15.88 x 0.9mm cold rolled steel square tubing frame with 8mm solid round steel horizontal bars welded into brick/ concrete walls</u>			
4	Type BB01 size 533 x 872mm high	No	4	
	Carried Forward		R	
	Bill No. 10			
	METALWORK			
	SARS Warehouse in Musina			
	Refurburshment Works Provisional Bills Of Quantities			

Brought Forward

R

Panels

Granolithic shall be laid in panels not exceeding 14m² for granolithic finishes, not exceeding 9.5m² for bonded finishes and not exceeding 6m² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1.5 times its width. Joints between panels shall be positioned, where possible, over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with small V-joints

Laying

Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels

Bonded granolithic shall be applied to the slab after applying a 1:1 sand and cement slurry brushed over the surface and allowed to partially set before applying the granolithic, thoroughly compacted and lightly wood floated to the required levels

After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened, any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated

Curing, seasoning and protection

Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying

Colour

Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour

PLASTER

Finish

Internal plaster shall be finished with a steel trowel and external plaster with a wooden float

SCREEDS

Carried Forward

R

Bill No. 11

PLASTERING

SARS Warehouse in Musina

Refurbishment Works Provisional Bills Of Quantities

Item No	Quantity	Rate	Amount
<u>BILL NO 13</u>			
<u>PLUMBING AND DRAINAGE</u>			
For preambles see "Model Preambles for Trades"			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>METHOD OF MEASURING PIPING</u>			
<u>Outside the building</u>			
All piping outside the building is measured out in detail			
<u>Inside the building</u>			
All piping and pipe fittings inside the building are measured in Number per point (i.e. per sanitary fitting)			
All water supply piping and pipe fittings are measured in Number and deemed to include piping and pipe fittings in ducts, chasing to walls, etc			
All sanitary plumbing in ducts are measured in Number			
All sanitary fittings, taps, traps, valves, waste outlets, etc are measured out in detail			
Lagging, if required, measured separately			
<u>PLUMBING AND DRAINAGE</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 and culverts shall be deemed to include all necessary excavation and disposal of surplus material			
Carried Forward		R	
Bill No. 13 PLUMBING AND DRAINAGE SARS Warehouse in Musina Refurbishment Works Provisional Bills Of Quantities			

Brought Forward

R

Rock excavations

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

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

Laying, backfilling, bedding, etc of pipes

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

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following:

SANS 1200 L : Medium-pressure pipelines, SANS 1200 LD : Sewers and SANS 1200 LE : Stormwater drainage

Pipe trenches, etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SANS 1200 DB : Earthworks (Pipe trenches)

Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SANS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

Concrete pipes

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

Vitrified clay pipes etc

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including concrete laid in a semi-dry state immediately before pipes are laid

uPVC pipes and fittings

Drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

Sanitary plumbing pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings

Carried Forward

R

Bill No. 13
PLUMBING AND DRAINAGE
SARS Warehouse in Musina
Refurbishment Works Provisional Bills Of Quantities

<p style="text-align: right;">Brought Forward</p> <p><u>Gratings, covers, etc</u></p> <p>Gratings, covers, etc shall be as manufactured by "Saint-Gobain", unless otherwise described</p> <p><u>French drains</u></p> <p>Descriptions of french drains shall be deemed to include for battered sides and sloping bottoms with inlet chamber size 300 x 300mm internally under inlet pipe, from bottom of drain to top of pipe, formed of loosely packed, rough, hard stone walls and covered with precast concrete slab size 600 x 600 x 100mm thick and the rest of the drain filled in to the same height with similar stone graded from 300mm diameter at bottom to 50mm diameter at top, covered with galvanised corrugated iron sheets treated on both sides with bituminous paint and 300mm earthfilling over</p> <p><u>Septic tanks</u></p> <p>Descriptions of septic tanks shall be deemed to include concrete base slabs, jointing to drains, etc</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks, worktops and wash troughs shall be type 430 (17/0)</p> <p>Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be type 304 (18/8)</p> <p>Stainless steel for laboratory sinks, photographic equipment, etc shall be type 316 (18/8)</p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Bill No. 13 PLUMBING AND DRAINAGE SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities</p>		R	

<p style="text-align: right;">Brought Forward</p> <p><u>uPVC pressure pipes and fittings</u></p> <p>Pipes for water supply shall be of the class described</p> <p>Pipes of 42mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>HDPE (high density polyethylene) pipes and fittings</u></p> <p>Pipes shall be type 4 and of the class specified with "Plasson" or "Alprene" compression fittings</p> <p><u>"Polycop" polypropylene pipes</u></p> <p>Polypropylene pipes of 54mm diameter and smaller shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes, as described</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</p> <p>All pipe diameters are nominal external</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>		R	
<p style="text-align: right;">Carried Forward</p> <p>Bill No. 13 PLUMBING AND DRAINAGE SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities</p>		R	

Brought Forward

R

Fixing of pipes

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for :

- casting in, building in, chasing in and fixing to walls, etc, including chasing; or
- placing in ground or filling under solid floors, including necessary excavation, backfilling and ramming; or
- suspending not exceeding 1m below suspension level

Disinfection of potable water pipelines

Descriptions of all potable water pipelines shall be deemed to include for disinfection in accordance with 5.10 of SANS 1200 L

Reducing fittings

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

Steel sectional water tanks

Tanks shall comply with CKS 114

Geyser installations

Geyser installations shall comply with SANS 10254

"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with relevant overlaps for specific diameters of pipes

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions, including all mastic, tape, "Layflat" sheeting, securing of same, etc

Prices for wrapping of pipes shall include for all work as described to couplings in the length

Carried Forward

R

Bill No. 13
PLUMBING AND DRAINAGE
SARS Warehouse in Musina
Refurbishment Works Provisional Bills Of Quantities

Brought Forward				R
<u>General</u>				
Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete				
Descriptions of pipes laid in and including trenches, sumps, catchpits, junction boxes, inspection chambers, french drains, septic tanks and the like shall be deemed to include for excavations, bedding of pipes, risk of collapse, keeping free of water, a dewatering system for removal of seepage water and water from other subterranean sources in the excavations designed and executed by the contractor, backfilling, compaction to a minimum of 93% modified AASHTO density and disposal of surplus material				
Descriptions of sumps, catchpits, junction boxes, inspection chambers and the like shall be deemed to include reinforcement, step irons and channels where applicable				
Descriptions for jointing of new to existing pipes shall be deemed to include searching for the existing pipe, exposing if necessary, cutting into, jointing and necessary fittings				
Descriptions of washdown pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors measured separately)				
Descriptions of all sanitary fittings shall be deemed to include for silicone sealant pointing between the fittings and finished wall surfaces				
Descriptions of copper service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to pipes				
Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends				
<u>SOIL DRAINAGE</u>				
1	Soil drainage including all necessary pipework approximately 30m, fittings, etc to connect to existing sewer line all complete to municipal requirements		Item	
	<u>uPVC gulleys</u>			
2	110mm Gulley not exceeding 0.75m deep	No	1	
Carried Forward				R
Bill No. 13 PLUMBING AND DRAINAGE SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

Brought Forward				R
<u>WATER SUPPLY</u>				
3	ABC cast iron straight or bent cleaning eye with removable cover jointed to 110mm HDPE pipe and set in and including 15MPa/19mm mass concrete surround with exposed surfaces trowelled smooth	No	1	
<u>SANITARY FITTINGS</u>				
All sanitary fittings, taps and accessories (refer to Architect's sanitary ware schedule) to be SANS approved and samples to be submitted to the Architect for approval				
<u>"Vaal"</u>				
4	"Urban Life" Wall Hung Pan - Product Code 43900WH, Vaal Sanitaryware vitreous china "Urban Life" 90 degrees outlet back inlet closed rim wall hung pan with quality soft close seat, to be used with concealed closed ,vaal sanitary ware duct cistern code(710935) or a concealed flush valve, DPI flush fit pan collar or equipment	No	4	
5	Vaal, Protea Paraplegic low level suite, code (7502465), colour (white), 9 litre cistern (code : 710631) complete with lid, fittings, and purpose-made C.P. side flush lever (left/right) or a back inlet exposed flushvalve. Bottom inlet water supply must be on the same side as flush lever	No	1	
6	Vaal, Hibiscus Basin, code (7023) comprising cobra medical elbow action range taps of pillar type with codes(503-21B and 503-21R) for cold and hot water respectively.	No	1	
7	Vaal Sanitaryware vitreous china 510 x 440mm rounded Amber basin with three semi-punched tapholes, (i.e. available in zero, one, two or three taphole configurations), integrated overflow and chain stay hole through the centre semi-punched taphole	No	2	
<u>"Cobra"</u>				
8	Cobra 2 x undertile stop taps with shower arm,shower head, dirverter and thread bath spout. Code (461STELLA)	No	2	
<u>WASTE UNIONS, ETC</u>				
Carried Forward				R
Bill No. 13 PLUMBING AND DRAINAGE SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

Brought Forward			R	
	<u>"Cobra Watertech"</u>			
9	32mm 303CP basin waste union with 309-32CP anti-theft plug	No	3	
	<u>TRAPS, ETC</u>			
	<u>"Rofo" stainless steel</u>			
10	Floor drain set in concrete slab to suit 110mm diameter pipe, complete including trap, adaptors, with 5mm thick stainless steel circular grating	No	1	
	<u>VALVES, TAPS, ETC</u>			
	<u>Traps, etc. including joints to steel pipes and/or fittings unless otherwise described</u>			
11	40-40mm Butyl rubber deep seal P or S trap	No	3	
12	40mm 373RB shower trap with CP grating	No	2	
	<u>Valves, etc. including joints to steel pipes and/or fittings unless otherwise described</u>			
13	15mm Chromium plated full way ballcock shut-off control valve with screw type control	No	10	
	<u>SANITARY PLUMBING</u>			
	<u>uPVC PIPES (REFER TO METHOD OF MEASURING UNDER SUPPLEMENTARY PREAMBLES)</u>			
	<u>Sanitary piping and fittings from sanitary fittings to gullies</u>			
14	50mm Sanitary plumbing under surface bed / through external wall to connecting showers / basins to external plumbing, including bends, junctions, reducers etc	No	3	
15	110mm Sanitary plumbing under surface bed / through external wall to connecting floor drains etc to external plumbing, including bends, junctions, reducers etc	No	5	
	<u>Sundries</u>			
16	Testing sanitary plumbing pipe system		Item	
	<u>WATER SUPPLIES</u>			
Carried Forward			R	
Bill No. 13 PLUMBING AND DRAINAGE SARS Warehouse in Musina Refurbishment Works Provisional Bills Of Quantities				

Brought Forward			R	
<u>INTERNAL</u>				
<u>Class 1 "Maksal" copper pipes with capillary couplings (Refer to Method of Measuring under Supplementary Preambles)</u>				
17	Piping, sized to requirements and changing to 15mm near sanitary fittings (except geyser) including all pipe fittings, horizontal and vertical reticulation, etc for cold water supply to basins, geysers, sinks, etc	No	10	
18	Piping, sized to requirements and changing to 15mm near sanitary fittings including all pipe fittings, horizontal and vertical reticulation, etc for hot water supply to showers, basins and sinks	No	5	
<u>Sundries</u>				
19	Testing water supply pipe systems		Item	
<u>ELECTRIC WATER HEATERS</u>				
<u>Closed circuit solar water heater with 3kW electric element, complete including associated valves, pressure relief valves and safety valves</u>				
20	300Litre water heater, including roof stand	No	1	
<u>PLUMBING & DRAINAGE SUNDRIES</u>				
21	Investigate the existing drainage		Item	
Carried to Summary			R	
Bill No. 13				
PLUMBING AND DRAINAGE				
SARS Warehouse in Musina				
Refurbishment Works Provisional Bills Of Quantities				

Item No		Quantity	Rate	Amount
	<u>BILL NO 15</u>			
	<u>PAINTWORK</u>			
	For preambles see "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>DESCRIPTIONS</u>			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	<u>PREPARATORY WORK TO EXISTING SURFACES</u>			
	<u>Plaster or concrete surfaces</u>			
	Surfaces shall be thoroughly cleaned down by high pressure water jet and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed. All existing walls to be made good where damaged by removals, furniture, etc, and all screw and nail holes and cracks shall be opened, primed with plaster primer, filled with a suitable filler and finished smooth			
	<u>Metal surfaces</u>			
	Surfaces shall be thoroughly rubbed and cleaned down by means of grit blasting or wire brushing. Blistered or peeling paint, including all traces of corrosion, shall be completely removed down to bare metal			
	<u>Previously painted wood surfaces</u>			
	Surfaces shall be thoroughly cleaned down by scraping and sanding all loose and flaking paint. All dust and surface contamination are to be removed by wiping down. All exposed nail heads are to be punched in and primed with one coat metal primer. Holes, cracks and crevices shall be primed with wood primer, filled with wood stopping and finished smooth			
	Carried Forward		R	
	Bill No. 15 PAINTWORK SARS Warehouse in Musina Refurbishment Works Provisional Bills Of Quantities			

Brought Forward			R	
<u>Previously varnished/natural wood surfaces</u>				
Surfaces shall be thoroughly cleaned down with existing coatings removed by sanding and/or using paint remover. All residual paint remover and surface contamination are to be removed by washing down, allowed to dry and sandpapered to a uniformed surface. All exposed nail heads are to be punched in and primed with one coat metal primer. Holes, cracks and crevices shall be treated with woodcare pretreatment, filled with wood stopping and finished smooth				
<u>PAINTWORK, ETC TO NEW SURFACES ON</u>				
<u>ON FLOATED PLASTER</u>				
<u>Prepare surfaces and remove all loose material apply 1 coat universal dulux undercoat and 2 coats dulux acrylic PVA paint matt finish (Grey steel 3) applied to manufactures specification on:</u>				
1	Walls	m2	122	
<u>Prepare surfaces and remove all loose material, apply 1 coat universal dulux undercoat and 2 coats dulux wash and ware (colour: Truly Scandanavia manufactures code (6J1-4) all with 5-7 year performance guarantee, applied to manufactures specification on:</u>				
2	Walls	m2	127	
<u>METAL SURFACES WITH</u>				
<u>Prepare surfaces and remove all loose material, dust, grease, salts and contamination with degreaser, rinse and apply one coat zinc chromate primer, one universal undercoat and two coats high gloss enamel paint on:</u>				
3	Door frames	m2	2	
4	Window frames	m2	7	
<u>WOOD SURFACES WITH</u>				
<u>Prepare, stop and apply two full coats polyurethane clear matte varnish, lightly sanded down between coats</u>				
5	Paint to timber skirtings, rails, etc	m	128	
Carried Forward			R	
Bill No. 15 PAINTWORK SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

	Brought Forward			R	
	Prepare surfaces and remove all loose material, apply 1 coat universal dulux undercoat and 2 coats coats dulux wash and wear silk (colour: birchbark canoe 6J-1-2) all with 5-7 year performance guarantee, applied to manufactures specification on:				
6	Doors	m2	43		
	PAINTWORK, ETC TO EXISTING SURFACES ON				
	<u>SMOOTH PLASTER OR CONCRETE SURFACES WITH</u>				
	Prepare surfaces and remove all loose material, apply 1 coat universal dulux undercoat and 2 coats dulux wash and ware (colour: Truly Scandanavia manufactures code (6J1-4) all with 5-7 year performance guarantee, applied to manufactures specification on:				
7	Internal Walls	m2	550		
	Prepare surfaces and remove all loose material, apply 1 coat universal dulux undercoat and 2 coats coats dulux wash and ware silk (colour: birchbark canoe 6J-1-4) all with 5-7 year performance guarantee, applied to manufactures specification on:				
8	Internal Walls	m2	32		
	Prepare surfaces and remove all loose material apply 1 coat universal dulux undercoat and 2 coats dulux acrylic PVA paint matt finish (Grey steel 3) applied to manufactures specification on:				
9	Internal Walls	m2	909		
	Existing walls to be sanded down, cracks and holes to be stopped and walls prepared smooth to receive, 2 coats Khaki mist 4, dulux Acrylic PVA tinted matt finish, applied to manufactures specifications on:				
10	Walls	m2	611		
	<u>METAL SURFACES WITH</u>				
	Carried Forward			R	
	Bill No. 15 PAINTWORK SARS Warehouse in Musina Refurburshment Works Provisional Bills Of Quantities				

Item No		Quantity	Rate	Amount
	BILL NO 16			
	<u>PROVISIONAL AMOUNTS, ETC</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>General</u>			
	All prime cost and provisional amounts are net			
	<u>Overheads and profit</u>			
	The contractor may allow for overheads and profit if required in the item "Allow for overheads and profit" wherever indicated			
	<u>Profit and general attendance upon selected subcontractors</u>			
	The item "Allow for profit and general attendance" which follows each selected subcontractor, shall be deemed to allow for the contractor's profit if required and to cover all the contractor's costs incurred in providing free of charge to the selected subcontractors, the following:			
	1. Access to the site and places where the subcontract work is to be carried out, including the reasonable use of any temporary personnel hoists erected by the contractor			
	2. Hoisting of the subcontractor's material in batches that can be handled by the contractor's hoist or crane during normal working hours			
	3. The provision of water and lighting and of single phase electric power to a position within 50m of the place where the subcontractor's work is to be carried out other than water, fuel and power for commissioning of any installation			
	4. The provision of an area for the subcontractor to establish temporary office accommodation and workshops and for the storage of plant and materials and goods			
	5. The use of erected scaffolding belonging to the contractor, along with others having the like right. Scaffolding will remain erected on site until all work which requires the use thereof has been completed			
	6. The use of ablution facilities and the like, where provided			
	Carried Forward		R	
	Bill No. 16 PROVISIONAL AMOUNTS, ETC SARS Warehouse in Musina Refurbishment Works Provisional Bills Of Quantities			

Brought Forward		R		
7.	The use of the site telecommunication facilities, where provided, subject to payment by the subcontractor for usage thereof			
8.	Making good in all trades and cleaning down and removal of rubbish on completion			
<u>Preliminaries</u>				
The contractor is referred to the Preliminaries for further amplification of "Prime Cost Amounts"				
<u>BUDGETARY ALLOWANCES</u>				
<u>Sundry building work</u>				
1	Provide the sum of R 35,000.00 (Thirty five thousand rand) for sundry builders work in connection with selected subcontractors, electrical, mechanical and electronic, etc installation, to be adjusted at scheduled rates	Item	35 000	00
2	Provide the sum of R2 000.00 (Two Thousand Rand) for repositioning of three (3) splits aircon units and making good of walls and paintwork	Item	2 000	00
3	Provide the sum of R 130 000.00 (One Hundred and Thirty Thousand Rand) for Stainless steel balustrades	Item	130 000	00
<u>PROVISIONAL SUMS FOR SELECTED SUBCONTRACT WORKS</u>				
<u>CONCHRANE CLEARVU INVISIBLE WALL</u>				
<u>Conchrane Clearvu Invisible Wall</u>				
4	Provide the sum of R 700 000.00 (Seven Hundred Thousand Rands) for Conchrane Clearvu Invisible Wall	Item	700 000	00
5	Allow for profit and general attendance	Item		
Carried to Summary				
Bill No. 16				
PROVISIONAL AMOUNTS, ETC				
SARS Warehouse in Musina				
Refurburshment Works Provisional Bills Of Quantities				

Bill No	BUILDER'S WORK SUMMARY	Page No	Amount
1	PRELIMINARIES	-14-	
2	ALTERATIONS	-20-	
3	EARTHWORKS	-24-	
4	CONCRETE, FORMWORK AND REINFORCEMENT	-27-	
5	MASONRY	-29-	
6	WATERPROOFING	-30-	
7	CARPENTRY AND JOINERY	-32-	
8	FLOOR COVERINGS, WALL LININGS, ETC	-33-	
9	IRONMONGERY	-36-	
10	METALWORK	-38-	
11	PLASTERING	-41-	
12	TILING	-42-	
13	PLUMBING AND DRAINAGE	-51-	
14	GLAZING	-52-	
15	PAINTWORK	-56-	
16	PROVISIONAL AMOUNTS, ETC	-58-	
	Sub-total		R
	Contingencies to be used as directed by the principal agent and deducted in whole or in part if not required,	Item	320 000 00
	Total Carried to Final Summary (Excluding VAT)		R
	SARS Warehouse in Musina		
	Refurburshment Works Provisional Bills Of Quantities		