

Item No		Quantity	Rate	Amount
	<b><u>PRELIMINARIES</u></b>			
	<b><u>Notes:</u></b>			
	1. The Standard Preliminaries published by the Association of South African Quantity Surveyors (1983 edition) shall be taken to be incorporated herein.			
	The agreement and schedule of conditions of building contract (including special conditions) shall be in form approved and recommended by the European Union Practical Guide, incorporating Bills of Quantities.			
	Tenderers are referred to the above-mentioned documents for the full intent and meaning of each clause thereof. These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not applicable to the contract such modifications/corrections as are necessary are given under each relevant clause heading.			
	2. Where N/A appears opposite any item, such item as detailed in the standard document referred to is NOT APPLICABLE to this contract.			
	<b><u>Section A: Conditions of Contract</u></b>			
1/1	Clause 1 - Scope of Contract	Item		
1/2	Clause 3 - Contractor to provide everything necessary.	Item		
1/3	Clause 4 - Setting out of Works.	Item		
1/4	Clause 5 - Local and other authorities' notices and fees.	Item		
1/5	Clause 8 - Access to Works	Item		
1/6	Site pegs	Item		
1/7	Watching and lighting	Item		
1/8	Electrical Power	Item		
1/9	Temporary latrines.	Item		
	<b>Carried Forward</b>		E	
	Bill No. 1 Preliminaries <b>Manzini Trade Hub</b>			

<b>Brought Forward</b>		E
1/10	Working site and access	Item
1/11	Protection of finished works	Item
1/12	Unauthorised persons	Item
1/13	Disturbance.	Item
1/14	Rubbish and cleaning.	Item
1/15	Site Offices.	Item
1/16	Notice boards	Item
1/17	Water.	Item
1/18	Safety and welfare measures	Item
1/19	Underground cables and pipes, etc.	Item
1/20	Regular meetings.	Item
<b>Carried to Summary</b>		E
Bill No. 1 Preliminaries <b>Manzini Trade Hub</b>		

Item No		Quantity	Rate	Amount
	<b><u>EARTHWORKS</u></b>			
	<b><u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u></b>			
	<u>Excavation in earth not exceeding 2m.</u>			
2/1	Trenches	m3	466	
2/2	Bases	m3	5	
	<b><u>Risk of collapse of earth</u></b>			
2/3	Risk of collapse of sides of excavations and/or fill not exceeding 5m deep from ground level	m2	630	
	<u>Extra over bulk excavation in earth for excavation in</u>			
2/4	Soft rock	m3	12	
2/5	Hard rock	m3	8	
	<u>Keeping excavations free of water</u>			
2/6	Keeping excavations free of all water other than subterranean water		Item	
	<u>Earth filling supplied by the contractor, compacted to 95% Mod AASHTO density</u>			
2/7	Type G7 material in accordance with SABS 1200 DM under floors	m3	1 605	
2/8	Extra over G5 material for stabilization with 5% Portland blast furnace cement	m3	1 605	
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density</u>			
2/9	Under floors	m3	439	
2/10	Backfilling to trenches, column bases, holes, etc	m3	250	
	<b>Carried Forward</b>			E
	Bill No. 2 Earthworks <b>Manzini Trade Hub</b>			

<b>Brought Forward</b>				E
<u>Coarse river sand filling supplied by the contractor</u>				
2/11	Under floors, etc 50mm thick	m3	134	
<u>Prescribed density tests on filling</u>				
2/12	"Modified AASHTO Density" test	No	100	
2/13	"Natural California Bearing Ratio" test	No	100	
2/14	"Road Indicator" test	No	100	
2/15	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	100	
<u>Soil insecticide</u>				
2/16	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	3 744	
<u>Paving of 60mm standard grey "Concor Double Zig Zag" interlocking roadstone concrete paving blocks on 25mm sand</u>				
2/17	Paving to trading areas etc to falls	m2	3 533	
<u>Subsoil drainage</u>				
2/18	110mm Slotted uPVC agricultural pipes laid in and including trenches not exceeding 2.00m deep including 19mm crushed stone encasing size 300 x 300mm with kaymat A4 filter blanket wrapped around encasing with 150mm side 300mm end laps including stitching complete	m	115	
<b>Carried to Summary</b>				E
Bill No. 2 Earthworks <b>Manzini Trade Hub</b>				

Item No	Quantity	Rate	Amount
<p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></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 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>"Foamcement " lightwieght concrete</u></p>			
<p>"Foamcement" lightweight concrete is to have a density of 600kg/m<sup>3</sup> for the top 50mm and 400kg/m<sup>3</sup> for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p>			
<p><u>"Foamcement " lightwieght concrete</u></p>			
<p>"Foamcement" lightweight concrete is to have a density of 600kg/m<sup>3</sup> for the top 50mm and 400kg/m<sup>3</sup> for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm</p>			
<p><b>Carried Forward</b></p>		E	
<p>Bill No. 3          Concrete, Formwork and Reinforcement  <b>Manzini Trade Hub</b></p>			

<b>Brought Forward</b>			E
<u>Formwork</u>			
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			
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			
Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described			
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"			
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
<u>15MPa/19mm concrete</u>			
3/1	Surface blinding under footings, slabs, etc	m3	23
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
<u>30MPa/19mm concrete</u>			
3/2	Strip footings	m3	108
<b>Carried Forward</b>			E
Bill No. 3 Concrete, Formwork and Reinforcement <b>Manzini Trade Hub</b>			

Brought Forward			E
3/3	Bases, stub columns, etc	m3	35
3/4	Surface beds cast in panels on waterproofing	m3	143
<b><u>REINFORCED CONCRETE</u></b>			
<u>25MPa/19mm concrete</u>			
3/5	Staircases including landings	m3	63
<u>30MPa/19mm concrete</u>			
3/6	Wall beams	m3	19
<b><u>TEST CUBES</u></b>			
3/7	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	72
<b><u>CONCRETE SUNDRIES</u></b>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
3/8	Surface beds, slabs, etc	m2	
<u>Finishing top surfaces of concrete smooth with a power float</u>			
3/9	Surface beds, slabs, etc	m2	75
<b><u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u></b>			
<u>Rough formwork to sides of</u>			
3/10	Surface bed edges, apron edges, sides of staircase, etc not exceeding 300mm high	m	53
3/11	Raking edges, apron edges etc not exceeding 300mm high	m	81
<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY 11)</u></b>			
Carried Forward			E
Bill No. 3 Concrete, Formwork and Reinforcement <b>Manzini Trade Hub</b>			

<b>Brought Forward</b>			E
	<u>Smooth formwork to sides</u>		
3/12	Rectangular stub columns	m2	
	<u>Smooth formwork to sides and soffits</u>		
3/13	Beams	m2	81
<b><u>REINFORCEMENT (PROVISIONAL)</u></b>			
	<u>Mild steel reinforcement to structural concrete work</u>		
3/14	Bars of various diameters (Provisional)	t	0.90
	<u>High tensile steel reinforcement to structural concrete work</u>		
3/15	Bars of various diameters (Provisional)	t	3.85
	<u>Fabric reinforcement</u>		
3/16	Type 395 fabric reinforcement in concrete footings, slabs, etc	m2	877
3/17	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	1 103
<b><u>PRECAST CONCRETE</u></b>			
	<u>Precast concrete copings finished smooth surfaces including bedding, jointing and pointing</u>		
3/18	Copings size 330 x wide set sloping on parapet walls	m	59
<b>Carried to Summary</b>			E
Bill No. 3 Concrete, Formwork and Reinforcement <b>Manzini Trade Hub</b>			



Item No	Quantity	Rate	Amount
<p><b><u>MASONRY</u></b></p>			
<p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p>			
<p><b><u>BRICKWORK</u></b></p>			
<p><u>Sizes in descriptions</u></p>			
<p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p>			
<p><u>Hollow walls etc</u></p>			
<p>Descriptions of hollow walls shall be deemed to include wall ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p>			
<p><u>Face bricks</u></p>			
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
<p><u>Pointing</u></p>			
<p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
<p><b><u>BLOCKWORK</u></b></p>			
<p><u>Concrete masonry units</u></p>			
<p>Blocks shall be either solid or hollow modular dense concrete masonry units in accordance with SABS Specification 1215, having compressive strengths as described</p>			
<p><b>Carried Forward</b></p>		E	
<p>Bill No. 4  Masonry  <b>Manzini Trade Hub</b></p>			

**Brought Forward**

Wall ties for blockwork

Wall ties shall be polypropylene "Permaties" complying with BS 76377. Ties for hollow walls shall be deemed to be included in the descriptions of hollow walls and shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties shall be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other

Blockwork

Blockwork shall comply with SABS 0145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole

Standard complementary blocks

Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary

**DECORATIVE BLOCKS**

Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour

**SAMPLES**

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

**FOUNDATIONS**

**Carried Forward**

Bill No. 4  
Masonry  
**Manzini Trade Hub**

E

E

Brought Forward			E
<b><u>Blockwork in Class II mortar with voids filled solid with reinforced concrete</u></b>			
4/1	460mm Walls in foundations (Provisional)	m2	163
4/2	230mm Walls	m2	317
<b><u>SUPERSTRUCTURE</u></b>			
<b><u>Blockwork in Class II mortar</u></b>			
4/3	230mm Walls	m2	1 184
4/4	230mm parapet Walls	m2	252
4/5	150mm Walls	m2	77
<b><u>BLOCKWORK SUNDRIES</u></b>			
<u>Galvanised hoop iron cramps, ties, etc</u>			
4/6	30 x 1,2mm Cramp 750mm long with one end built into concrete beam and other end pinned onto gumpole	No	102
<u>Brick Reinforcement (every course)</u>			
4/7	150mm Wide reinforcement built in horizontally	m	2 846
<u>Brick Reinforcement (every third course)</u>			
4/8	150mm Wide reinforcement built in horizontally	m	1 339
4/9	75mm Wide reinforcement built in horizontally	m	110
<u>Concrete prestressed fabricated lintels</u>			
4/10	110 x 75mm Lintels in lengths not exceeding 3.00m (Provisional)	m	22
<b><u>Air bricks etc</u></b>			
4/11	230 x 160mm Cement air brick	No	28
<u>Window Cills</u>			
4/12	Brick on edge cills	m	34
<b>Carried to Summary</b>			E
Bill No. 4 Masonry <b>Manzini Trade Hub</b>			

Item No		Quantity	Rate	Amount
	<b><u>WATERPROOFING</u></b>			
	<u>Waterproofing</u> Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u>			
5/1	In walls	m2	46	
	<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
5/2	Under surface beds	m2	1 416	
	<u>4mm "Durachem" thermoflex waterproofing compound applied in strict accordance with manufacturer's instructions</u>			
5/3	To walls	m2	323	
	<b>Carried to Summary</b>			E
	Bill No. 5 Waterproofing <b>Manzini Trade Hub</b>			

Item No		Quantity	Rate	Amount
	<b><u>ROOF COVERINGS ETC</u></b>			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Straight cutting</u>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	<b><u>ROOF AND WALL INSULATION</u></b>			
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>			
	<u>0,58mm Kliplok 700 pre painted (in two colours) galvanised mild steel roof sheeting with baked enamel "Chromadek" finish in single lengths fixed to timber purlins on timber gumpoles at 7500mm centres in strict accordance with the manufacturer's instructions</u>			
6/1	Roof covering with pitch not exceeding 50 degrees	m2	2 331	
6/2	Extra over for polycarbonate sheeting Kliplok 700, 3mm thick - opal 50	m2	256	
6/3	Extra over for shield profile and decoration		Item	
	<u>0,6mm thick "IBR 890" pre painted galvanised mild steel roof sheeting in single lengths fixed to timber purlins on timber gumpoles at 1050mm centres in strict accordance with the manufacturer's instructions</u>			
6/4	Roof covering with pitch not exceeding 50 degrees	m2	1 341	
	<b><u>SHEET METAL FLASHINGS, LININGS, COPINGS, ETC</u></b>			
	<b>Carried Forward</b>			E
	Bill No. 6 Roof Coverings, etc <b>Manzini Trade Hub</b>			

		<b>Brought Forward</b>			E
	<u>0.6mm galvanized sheet iron</u>				
6/5	Counter flashings not exceeding 750mm girth bent and notched on site to suite roof profile (Provisional)	m	60		
<b><u>ROOF AND WALL INSULATION</u></b>					
<u>"Alucushion" insulation aluminium foil faced on one side and white faced on other side / (12120WMF)</u>					
6/6	Insulation laid taut over rafters/gumpoles (at approximately 7500mm centres) and fixed concurrent with purlins, etc, including taped laps and nylon straining wires.	m2	2 331		
<b><u>"Sisalation 430FR" heavy industrial grade aluminium foil based insulation</u></b>					
6/7	Insulation laid taut over 200mm dia. treated gumpoles (at approximately 1,05m centres) and fixed concurrent with roof covering, including taped laps and nylon straining wires	m2	1 341		
		<b>Carried to Summary</b>			E
Bill No. 6 Roof Coverings, etc <b>Manzini Trade Hub</b>					

Item No		Quantity	Rate	Amount
	<p><b><u>CARPENTRY AND JOINERY</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><u>Particle board</u></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SABS 1300 Particle board: exterior and flooring type</p> <p>b) SABS 1301 Particle board: interior type</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><b><u>ROOFS, ETC</u></b></p> <p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p>			
	<b>Carried Forward</b>		E	
	<p>Bill No. 7 Carpentry and Joinery <b>Manzini Trade Hub</b></p>			

<b>Brought Forward</b>			E
Trusses are at maximum 7500mm centres			
Roof coverings are "IBR" profile roof coverings on 50 x 76mm purlins at 1250mm centres			
Ceilings are 6.4mm Rhino ceilings fixed to 38 x 38mm branding fixed in strict accordance with the manufacturer's instructions.			
The references given in the descriptions are to be respective types of trusses detailed on the architect and Engineer's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes			
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect / Engineer and/or the site before design or fabrication commences			
<u>Copper chromium arsenic treated gumpoles:</u>			
7/1	Supply and erect treated gumpole roof trusses including 50 x 76mm purlins as designed and approved by the Architect as detailed on the Architectural/Engineering drawings annexed / accompanying these bills of quantities for tender purposes ( <b>Trade Area incl. Offices</b> ) complete	Item	
7/2	Supply and erect treated gumpole roof trusses including 50 x 76mm purlins as designed and approved by the Architect and as detailed on the Architectural/Engineering drawings annexed / accompanying these bills of quantities for tender purposes ( <b>Sihhahha</b> ) complete	Item	
7/3	Do. but to <b>Sleeping Area</b>	Item	
7/4	Do. but to <b>Bath</b>	Item	
7/5	125mm -150mm dia gumpoles in 13m lengths fixed onto and by means of Base plate "B"Detail on one end and mitred and fixed to each other as per gumpole roof detail	m	325.00
7/6	Do. but 3.5m lengths	m	84
<b>Carried Forward</b>			E
Bill No. 7 Carpentry and Joinery <b>Manzini Trade Hub</b>			



<b>Brought Forward</b>			E
7/7	Do. but wallplate in 6m lengths, tied with hoop iron from concrete beam	m	332
7/8	150-175mm diameter gumpoles in 3.5m lengths secured to 125-150mm dia. gumpole joist on one end and to 200-225mm dia. gumpole beam on the other.	m	168
7/9	175mm -200mm dia gumpoles in 4.5m lengths set in concrete as per section "B-B"Detail on one end and tied onto 100-125mm diameter gumpole beam by means of hoop iron and 4" nails	m	265.50
<b><u>DOORS ETC</u></b>			
The reference given in the descriptions are to the respective types of doors detailed on the Architect's drawings annexed to these bills of quantities / accompanying these bills of quantities for tender purposes			
<b><u>Wrought meranti doors, etc</u></b>			
7/10	44mm Solid doors veenered by approved supplier size 813 x 2032mm high, ref: D3	No	6
7/11	44mm Framed double door 1,61 x 2,03m high, each leaf of 44 x 144mm top rail and stiles and 44 x 219mm bottom rail in single pane rebated all round, including 19 x 19mm glazing beads on one side	No	5
7/12	40mm hallow core doors of interior quality filled flush on both sides size 820 x 2060mm high, ref:D4	No	26
<b>Carried to Summary</b>			E
Bill No. 7 Carpentry and Joinery <b>Manzini Trade Hub</b>			

Item No		Quantity	Rate	Amount
<b><u>IRONMONGERY</u></b>				
<b><u>HINGES, BOLTS, ETC</u></b>				
<u>Brass</u>				
8/1	100mm Butt hinges	No	10	
8/2	100mm Barrel bolts	No	12	
<b><u>LOCKS</u></b>				
<u>"Union"</u>				
8/3	Gower euro profile cylinder lockset Ref CZ682-05-222	No	6	
8/4	Gower thre lever lockset Ref CZ682-24-52	No	6	
8/5	Gower four lever mortice lockset with rebate conversion set	No	5	
8/6	Indicator bolts Ref AL8098AS	No	26	
<b><u>LETTERS, NAMEPLATES, ETC</u></b>				
<u>"Union"</u>				
8/7	CH 300 x 200mm high anodized aluminium plate with fire extinguisher, fire hose reel or fire hydrant symbol	No	6	
8/8	3300 x 490mm high overall dimentions for brass signage with letters (Manzini Trade Hub) as per signage detail fixed to wall	No	1	
<b><u>BATHROOM FITTINGS</u></b>				
<u>"Colette"</u>				
8/9	Soap holder Code: AC-0903-100 plugged to walls	No	14	
8/10	Single toilet roll holder with lid Code: AC-0905-100 plugged to walls	No	20	
<b><u>SUNDRIES</u></b>				
<b>Carried Forward</b>				
Bill No. 8 Iron Mongery <b>Manzini Trade Hub</b>				E

Brought Forward			E
	<u>"Union"</u>		
8/11	Door stops plugged Ref 97001SS	No	40
8/12	Rubber tipped hat and coat hooks Ref AL8722AS	No	16
<b><u>PELMETS AND CURTAIN TRACKS</u></b>			
	<u>"Kirsh"</u>		
8/13	Heavy duty aluminium double curtain tracks for face fixing with 50mm projection plugged to walls	m	22
8/14	Extra for plugged ends	No	54
<b>Carried to Summary</b>			E
Bill No. 8 Iron Mongery <b>Manzini Trade Hub</b>			

Item No		Quantity	Rate	Amount
	<b><u>METALWORK</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	Descriptions Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<b><u>SUNDRY STEELWORK</u></b>			
	<b><u>Bolts</u></b>			
9/1	M16 grade 4.8 bolts	kg	28	
9/2	M20 grade 4.8 bolts	kg	168	
9/3	16mm diameter threaded galvanised bolt drilled across 175-200mm diameter gumpole and set in concrete base	No	59	
9/4	Do. but joining mitred 125-150mm gumpoles at roof level	No	13	
	<b><u>Bearers to stub columns, lintels, etc</u></b>			
9/5	400 x 200 x 12mm thick base plate four times drilled 22mm dia. holes, with 400 x 94 x 12mm thick square plate welded to base plate using 6mm fillet weld all	kg	421	
9/6	285 x 133 x 285 x 25 x 94x 12mm thick custom shaped plate twice drilled 22mm dia. holes welded to square plate on base plate using 6mm fillet weld all	kg	325	
9/7	285 x 124 x 200 x 150 x 12mm thick custom shaped plate twice drilled 18mm dia. holes welded on base plate using 6mm fillet weld all	kg	162	
9/8	250 x 150 x 12mm thick base plate four times drilled 18mm dia. holes, with 250 x 150 x 12mm thick square plate welded to base plate using 6mm fillet weld all	kg	536	
9/9	Hole through 12mm steel for bolt	No	304	
	<b>Carried Forward</b>			E
	Bill No. 9 Metalwork <b>Manzini Trade Hub</b>			

**Brought Forward**

**PRESSED STEEL DOOR FRAMES**

Heavy duty double rebated frames suitable for 230mm walls

9/10	Frame for door 813 x 2032mm high	No	32
9/11	Frame for double door 1500 x 2032mm high	No	5

**STEEL WINDOWS, DOORS, ETC**

**Standard residential windows**

9/12	Window type size 533 x 1511mm high	No	27
9/13	Window type size 533 x 1200mm high	No	4

**Carried to Summary**

Bill No. 9  
Metalwork  
**Manzini Trade Hub**

E

E

Item No		Quantity	Rate	Amount
	<b><u>PLASTERING</u></b>			
	<b><u>SCREEDS</u></b>			
	<u>3:1 Cement plaster screed wood floated on concrete</u>			
10/1	30mm Thick on floors and landings	m2	1 103	
10/2	Average 30mm thick on floors to falls and currents	m2	313	
	<b><u>INTERNAL PLASTER</u></b>			
	<u>Apply cement slurry on blockwork with bag wash finish</u>			
10/3	Walls inclusive of flush concrete columns and beams	m2	1 676	
10/4	On narrow widths flush on concrete columns and beams	m2	155	
	<b><u>EXTERNAL PLASTER</u></b>			
	<u>Apply cement slurry on blockwork with bag wash finish</u>			
10/5	Walls inclusive of flush concrete columns and beams	m2	685	
10/6	On narrow widths flush on concrete columns and beams	m2	61	
	<b>Carried to Summary</b>			
	Bill No. 10 Plastering <b>Manzini Trade Hub</b>			
				E

Item No		Quantity	Rate	Amount
	<b><u>TILING</u></b>			
	<b><u>INTERNAL WALL TILING</u></b>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>245 x 195mm "Johnsons" wall tiles (PC Sum of 120/m2) fixed with adhesive to and including plaster backing on block work to</u>			
11/1	On splash back to bathroom walls	m2	11	
<b>Carried to Summary</b>				E
Bill No. 11 Tiling <b>Manzini Trade Hub</b>				E

Item No	Quantity	Rate	Amount
<p><b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><u>Concrete pipes</u></p> <p>Pipes shall be jointed with interlocking joints or where so described socket and spigot joints with rubber rings</p> <p><u>uPVC pipes and fittings</u></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>uPVC pressure pipes and fittings</u></p> <p>Pipes for water supply shall be of the class stated</p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC 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 uPVC and all other fittings shall be cast iron, all with similar push-in type joints</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><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p>			
<b>Carried Forward</b>		E	
<p>Bill No. 12 Plumbing and Drainage <b>Manzini Trade Hub</b></p>			



**Brought Forward**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster and descriptions shall be deemed to include therefor

Excavations

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

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

Laying, backfilling, bedding, etc. of pipes

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

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

- SABS 1200L : Medium-pressure pipelines
- SABS 1200LD : Sewers
- SABS 1200LE : Stormwater drainage

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

Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB : Bedding (Pipes)

Unless otherwise described bedding of rigid pipes shall be class B bedding

Stainless steel basins, sinks, wash troughs, urinals, etc.

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

**Carried Forward**

Bill No. 12  
Plumbing and Drainage  
**Manzini Trade Hub**

E

E

Brought Forward			E
<b><u>SOIL DRAINAGE</u></b>			
12/1	Connection to municipal sewer line		Item
12/2	Excavate for sewer inspection chamber not exceeding 2.0m and construct inspection chamber complete with concrete filled blockwork on bed with all necessary benching requirements completely internal dimensions 1000 x 1000mm	No	1
	<u>Gratings, Covers, etc</u>		
12/3	600 x 600mm 30kg Cast iron double seal manhole cover and frame	No	1
	<u>uPVC pipes</u>		
12/4	110mm Pipes laid in and including trenches not exceeding 1000mm deep	m	200
12/5	160mm Pipes laid in and including trenches exceeding 1000mm and not exceeding 2000mm deep	m	100
	<b><u>Extra Over uPVC pipes for fittings</u></b>		
12/6	110mm Bend	No	24
12/7	160mm Sockets	No	26
12/8	110mm Access bend	No	19
	<u>uPVC gulleys</u>		
12/9	110mm Gully trap in ground not exceeding 750mm deep internally	No	4
	<u>Sundreis</u>		
12/10	Testing drainage pipe system		Item
	<b><u>SANITARY FITTINGS</u></b>		
	Rates for sanitary fittings shall include for clear silicone around basins, etc		
Carried Forward			E
	Bill No. 12 Plumbing and Drainage <b>Manzini Trade Hub</b>		

<b>Brought Forward</b>		E
<u>"Vaal"</u>		
12/11	"Quartz" close couple WC suite code: 771363 comprising of wash down pan code: 772800 with and including matching 6 litre push button top flush cistern code: 711641 complete with purpose made heavy duty double flap seat code: 8515Z0 complete	No 16
12/12	560 x 415mm "Tuscany" wash hand basin code: 7006 with and including matching pedestals	No 28
12/13	wall urinal with 4,5 litre high level automatic flushing cistern with exposed flush pipe, spreader and waste union	No 5
<b><u>TRAPS, VALVES ETC</u></b>		
<u>uPVC "Marley"</u>		
12/14	40mm Black PVC heavy duty 'P' trap	No 33
<u>"Cobra Watertech"</u>		
12/15	32mm 340 CP bottle trap	No 33
<b><u>TAPS, VALVES ETC</u></b>		
<u>"Cobra Watertech"</u>		
12/16	22mm 1003 / 125RB Gate valve	No 2
12/17	15mm 1003 / 125RB Gate valve	No 27
12/18	15mm 121RB Stopcock	No
12/19	15mm "Classic-Melia" chrome plated undertile stop taps code: 228-15	No 49
12/20	15mm "Classic-Melia" chrome plated basin mixer code: ME293	No 28
12/21	15mm "classic-Melia" chromium plated shower mixer with riser pipe, arm and shower head	No 10
<b><u>SANITARY PLUMBING</u></b>		
<b>Carried Forward</b>		E
Bill No. 12 Plumbing and Drainage <b>Manzini Trade Hub</b>		

<b>Brought Forward</b>			E
<u>uPVC pipes</u>			
12/22	50mm Pipe laid in and including trenches not exceeding 1.00m deep	m	42
12/23	Do. but chased into blockwork	m	92
12/24	110mm Pipes laid in and including trenches not exceeding 1.00m deep	m	25
<u>Etra over uPVC pipes for fittings</u>			
12/25	50mm Bend	No	54
12/26	50mm Access bend	No	31
12/27	50mm Junction	No	5
12/28	50mm Access junction	No	4
12/29	50mm "GI Two-Way" vent valve	No	5
12/30	110mm Pan connectors	No	16
12/31	110mm Bend	No	16
12/32	110mm Junction	No	8
12/33	110mm "GI Two-Way" vent valve	No	16
12/34	110 x 50 x 50mm Access double reducing junction	No	4
<u>Sundries</u>			
12/35	Testing waste pipe system		Item
<b><u>WATER SUPPLIES</u></b>			
<u>Class 12 uPVC pressure pipes</u>			
12/36	50mm pipes laid in and including trenches	m	302
<b>Carried Forward</b>			E
Bill No. 12 Plumbing and Drainage <b>Manzini Trade Hub</b>			

<b>Brought Forward</b>				E
<u>Extra over pressure pipes for solvent welded pressure fittings</u>				
12/37	50mm Elbows	No	26	
12/38	50mm Tee	No	31	
<u>Class 1 copper pipes</u>				
12/39	15mm Pipes	m	480	
12/40	22mm Pipes	m	350	
<u>Extra over class 1 copper pipes for capillary fittings</u>				
12/41	15mm Fittings	No	60	
12/42	22mm Fittings	No	40	
<u>Extra over class 1 copper pipes for brass compression fittings</u>				
12/43	15mm Fittings	No	58	
12/44	22mm Fittings	No	38	
<u>Copper overflow and service pipes</u>				
12/45	15mm Overflow pipe 450mm girth	No	2	
<u>Sundries</u>				
12/46	Connection to water supply		Item	
12/47	460 x 460mm cast iron stopcock box including brick chamber below not exceeding 750mm deep internally	No	2	
<b><u>TESTING</u></b>				
12/48	Testing water pipe system		Item	
<b><u>FIRE APPLIANCES ETC</u></b>				
<b>Carried Forward</b>				E
Bill No. 12 Plumbing and Drainage <b>Manzini Trade Hub</b>				

<b>Brought Forward</b>			E
<u>"Chubb"</u>			
12/49	"Everyway" hose reel complete with 30m rubber hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	4
12/50	9kg Dry chemical fire extinguisher	No	4
12/51	4.5kg Carbon dioxide fire extinguisher	No	4
<u>Galvanized steel pipes</u>			
12/52	22mm Pipes	m	21
<u>Extra over galvanized steel pipes</u>			
12/53	22mm Bends	No	21
12/54	22mm Unions	No	7
12/55	22mm Tees	No	7
<b><u>Fire Hydrants</u></b>			
12/56	75mm pvc class 12 laid in and including excavation	m	120
12/57	75mm valves	No	3
12/58	75mm bends	No	3
12/59	75mm tees	No	3
12/60	75 x 32mm reducer	No	3
12/61	32mm male adaptor	No	3
12/62	32mm tee	No	3
12/63	28mm male adaptor	No	3
12/64	28mm female elbow	No	3
12/65	28mm bends	No	3
12/66	28mm tees	No	3
<b>Carried Forward</b>			E
Bill No. 12 Plumbing and Drainage <b>Manzini Trade Hub</b>			



Item No		Quantity	Rate	Amount
	<p><b><u>GLAZING</u></b></p> <p><b><u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u></b></p> <p><u>6mm Silver float glass copper backed with polished edges fixed with gold plated screw heads at corners</u></p>			
13/1	Mirror 600 x 900mm high	No	28	
<b>Carried to Summary</b>				
Bill No. 13 Glazing <b>Manzini Trade Hub</b>				E



Item No		Quantity	Rate	Amount
	<b><u>PAINTWORK</u></b>			
	<b><u>ON BAGWASH</u></b>			
	<b><u>One coat alkali resistant plaster primer and two coats "Dulux" polyacrylic emulsion paint</u></b>			
14/1	On internal walls	m2	1 676	
	<b><u>One coat alkali resistant plaster primer and two coats "Dulux" polyacrylic emulsion paint</u></b>			
14/2	On external walls	m2	1 206	
	<b><u>ON METAL</u></b>			
	<u>Spot priming defects on pre primed surfaces with zink chromate primer and applying one universal undercoat and two coats "Dulux" gloss grey 30YY20/029 paint o steel</u>			
14/3	On door frames	m2	67	
14/4	On steel tubes	m2	3	
	<b><u>ON BRICKWORK</u></b>			
	<u>Two coats polyurethane varnish</u>			
14/5	Brick on edge cills	m2	22	
	<b><u>ON WOOD</u></b>			
	<b><u>One coat oil wood primer, one coat universal undercoat and two coats super universal enamel paint on</u></b>			
14/6	Roof timbers	m2	102	
	<u>One under coat and two coats high gloss alkyd enamel paint by "Dulux"</u>			
14/7	On doors	m2	150	
	<b>Carried Forward</b>			E
	Bill No. 14 Painting Work <b>Manzini Trade Hub</b>			

**Brought Forward**

Knot, prime stop and apply three coats WOODGUARD  
Timber preservative on:-

14/8	On decking	m2	802
14/9	On gum poles	m2	452

E

**Carried to Summary**

E

Bill No. 14  
Painting Work  
**Manzini Trade Hub**

Item No		Quantity	Rate	Amount
	<b><u>EXTERNAL WORK (PROVISIONAL)</u></b>			
	<b><u>SITE CLEARANCE ETC</u></b>			
	<u>Site clearance</u>			
15/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, and trees not exceeding 200mm girth, bush etc	m2	2 393	
	<b><u>BILK EXCAVATION, FILLING ETC</u></b>			
	<u>Open face excavation in earth over sloping site</u>			
15/2	Open face excavation in a cut to fill operation to formation level including compaction to 95% Mod AASHTO density in layers not exceeding 300mm	m3	3 505	
	<b><u>DRIVEWAYS, PAVING, ETC</u></b>			
	<u>Earth filling supplied by the contractor under paving</u>			
15/3	Oversite of G6 material in accordance with SABS 1200 DM compacted to 98% Mod ASSHTO density	m3	763	
15/4	Rip and recompact 150mm insitu material to 93% MOD AASHTO	m2	2 324	
	<u>Prescribed tests on filling</u>			
15/5	"Modified AASHTO Density" test (Provisional)	No	15	
	<b><u>DRAINAGE, ETC</u></b>			
	<u>Precast concrete storm water channel</u>			
15/6	450mm Diameter pipes laid in on 150mm compacted material to a density of 98% Mod ASSHTO density and includin trenches not exceeding 2.00m deep, backfilling to 95% Mod ASSHTO density, etc complete (Provisional)	m	30	
	<b>Carried Forward</b>			E
	Bill No. 15 External Work <b>Manzini Trade Hub</b>			

<b>Brought Forward</b>			E
<u>Sumps, catchpits, inspection chambers, etc (grating and covers elsewhere measured)</u>			
15/7	Rainwater sumps 600 x 600mm not exceeding 2.00m deep internally, complete	No	6
<u>Stone pitching</u>			
15/8	120mm Thick against sloping banks bedded and jointed in 1 : 8 cement mortar and jointed with hollow recessed joints and including excavation to trenches not exceeding 1.00m deep, backfilling to 95% Mod ASSHTO density (Provisional)	m2	240
15/9	Extra for angles, intersections, ends, dressing into sides of catch pits etc (Provisional)	No	10
<b><u>FENCING, BOUNDARY WALLS ETC</u></b>			
<u>Diamond mesh fencing formed of 45 x 45 x 3mm angle iron spiked intermediate posts, secured to 125-150mm dia. gumpole post 2100mm high, anchored in concrete bases size 400 x 400 x 600mm at 3000mm centres, straining wires to top, middle and bottom</u>			
15/10	1800mm diamond mesh fence installed complete with 2 gumpoles per post, gumpole stays and straining wires.	m	330
15/11	2500 x 2100mm High Diamond fence gate on 50mm round tube frame on three hinges complete	No	2
15/12	extra over for standard droppers used to create artwork on fence structure	m	150
<b>Carried to Summary</b>			E
Bill No. 15 External Work <b>Manzini Trade Hub</b>			

Item No	Quantity	Rate	Amount
<b><u>ELECTRICAL INSTALLATION</u></b>			
<b><u>Compliance with conditions</u></b>			
16/1	Nett price for compliance with conditions of contract and various specifications which costs are not specifically covered elsewhere or by unit rates (including all risks insurance)	SUM	
<b><u>Surity</u></b>			
16/2	Allow the provision of a performance guarantee	SUM	
16/3	All other obligations	SUM	
<b><u>Special preliminary and general conditions</u></b>			
16/4	Site establishment	SUM	
	Transport		
16/5	Provide and arrange transport of all electrical material and equipment to site as well as workmen and staff	SUM	
	Commissioning and testing		
16/6	Supply all test equipment and labour for testing, commissioning and adjustments of all portions of the installation	SUM	
	As-built drawings		
	Provide schematic diagrams and drawings for electrical installation		
16/7	Allow for completing all formalities, issuing all notices and paying all fees due in respect of the installation to the Supply Authority	SUM	
16/8	All notices and safety equipment as required by law	Item	
<b>Carried Forward</b>			E
Bill No. 16 Electrical Installation <b>Manzini Trade Hub</b>			

<b>Brought Forward</b>				E
<b><u>Distribution boards</u></b>				
Supply and install galvanised steel kiosk and distribution boards with lockable doors complete wiyh all equipment as shown on the drawings				
16/9	Kiosk with lockable doors, hot dip galvanised steel (3CR12), colour orange - Floor Standing	No	1	
	Distribution Boards			
16/10	Flush mounted colour white <b>DB1 Trade Hub</b>	No	1	
16/11	Do. <b>DB2 Bath</b>	No	1	
16/12	Do. DB 3 Sleepers	No	3	
<b><u>Reticulation</u></b>				
All cables to be PVC/PVC/SWA/PVC with stranded copper conductors, and SABS approved, including terminations.				
16/13	120mm <sup>2</sup> x 4-core	m	100	
16/14	70mm <sup>2</sup> BCEW	m	100	
16/15	35mm <sup>2</sup> x 4-core	m	70	
16/16	16mm <sup>2</sup> BCEW	m	70	
16/17	16mm <sup>2</sup> x 4-core	m	150	
16/18	10mm <sup>2</sup> BCEW	m	150	
16/19	16mm <sup>2</sup> x 2-core	m	100	
16/20	10mm <sup>2</sup> BCEW	m	100	
<b><u>Sleeves</u></b>				
Unplasticised polyvinyl chloride (uPVC) sleeves piping including short length and jointing, laid in trench (trenching and backfilling elsewhere measured)				
<b>Carried Forward</b>				E
Bill No. 16 Electrical Installation <b>Manzini Trade Hub</b>				

<b>Brought Forward</b>				E
16/21	110mm diameter pipe	m	100	
16/22	50mm diameter pipe	m	100	
16/23	110mm bends	No	6	
16/24	50mm bends	No	6	
<b><u>Trenching and Manholes</u></b>				
Includes digging, bckfilling and builder's work				
16/25	Trenching 600mm deep in pickable soil	m	200	
16/26	Trenching 1000mm deep in pickable soil	m	100	
16/27	Manhole 1200 x 1200mm with cast iron cover	No	2	
16/28	Manhole 1000 x 1000mm with concrete cover	No	4	
16/29	Cable markers		Item	
<b><u>Luminaries</u></b>				
16/30	Type E	No	92	
16/31	Type K	No	20	
16/32	Type Co	No	62	
<b><u>Lighting outlets</u></b>				
Supply and install light points as specified: <b>Crabtree make only</b>				
Light points shall be complete with 20mm pvc conduit, 2.5mm <sup>2</sup> I.C.E.W unless otherwise specified				
Light switch points shall be complete with conduit, wiring and 100 x 50mm steel box				
Light switches shall be 20A with white steel cover plate				
16/33	Light point complete with 2.5mm <sup>2</sup> wiring and cover plate	No	150	
<b>Carried Forward</b>				E
Bill No. 16 Electrical Installation <b>Manzini Trade Hub</b>				

<b>Brought Forward</b>			E
16/34	Light switch point complete with 2.5mm2 wiring and 2.5mm2 insulated C.E.W.	No	14
16/35	1 gang 1 way light switch (flush)	No	4
16/36	1 gang 2 way light switch (flush)	No	4
16/37	2 gang 1 way light switch (flush)	No	6
16/38	230V single phase photocell switch complete with wiring and installation	No	4
16/39	All PVC conduit for the above complete, including connections, junction boxes, cover plates and male adaptors at each termination point		Item
<b><u>Power outlets</u></b>			
Supply and install power outlets and wiring as specified: <b>Crabtree make only</b>			
Socket outlets to be switched 16A single phase round 3 pin concomplete with 20mm diameter pvc conduit and accessories, 2.5mm2 pvc wiring, and 2.5mm2 insulated Earth wire, 100 x 100mm steel conduit box and socket with flush white steel cover, unless otherwise specified			
16/40	International standard socket outlet (IS) 1No. Sso & 1No. 2pin outlet (colour white)	No	16
16/41	Double socket outlet (colour white)	No	3
16/42	20A DP irolator complete with 25mm diameter pvc conduit, 4mm2 wiring + 2.5mm2 I.C.E.W	No	4
16/43	25A DP irolator complete with 25mm diameter pvc conduit, 4mm2 wiring + 2.5mm2 I.C.E.W	No	2
<b><u>Appliances</u></b>			
16/44	Emergency illuminated Exit signage equal to BEKA RT 0209 complete with wiring	No	6
<b>Carried Forward</b>			E
Bill No. 16 Electrical Installation <b>Manzini Trade Hub</b>			



<b>Brought Forward</b>			E
<b><u>Powerskirting and Trunking</u></b>			
16/45	Install Xpelair GX6 extractor fan in toilet	No	3
<b><u>Lightning protection</u></b>			
Lightning protection system shall be supplied and installed to conform with SABS and as described below:			
Roof conductors shall be bonded to the metal roof sheets or structures at intervals not more than 30 metres			
All exposed metal frames shall be solidly bonded to the general earthing system			
Air terminals / roof conductors shall be earthed via flexible stranded 70mm <sup>2</sup> vertical down conductors spaced not more than 25 metres			
Down conductors shall run in 32mm diameter pvc sleeves concealed in walls or columns with lower ends terminated and bonded to earth spikes buried atleast 500mm below finished floor level in earth inspection chambers			
Installation of roof and down conductors shall be complete with appropriate conductor guides installed not exceeding 1.2 metres vertically and 1.5 metres horizontally			
Appropriate accessories such as T. crimp sleeves, crimp lugs, termination clamps, jointing sleeves, thermoweld connections etc, shall be used in the earthing installation			
16/46	70mm <sup>2</sup> copper earth wire	m	200
16/47	2.4m long threaded copper earth rod complete with terminal clamp	No	10
16/48	70mm <sup>2</sup> copper compactable conductor guide complete with thermo plastic seating	No	400
16/49	70mm <sup>2</sup> expansion loop	No	2
<b>Carried Forward</b>			E
Bill No. 16 Electrical Installation <b>Manzini Trade Hub</b>			

<b>Brought Forward</b>							
16/50	All connecting and jointing accessories required to SABS (Jointly sleeves, clamps, T.crimp sleeves, crimp lugs etc not included in this bill		Item				E
16/51	(HHK) 400 x 500mm deep inspection pit complete with heavy duty green steel cover	No		10			
16/52	70mm <sup>2</sup> 4-way cable to cable copper thermoweld connector	No		6			
16/53	70mm <sup>2</sup> L-shape cable to earth rod thermoweld connector	No		10			
16/54	Flat surface mounting bracket for installation of 500mm long lightning conductor air termination finials (copper coated, threaded diameter 16mm)	No		6			
16/55	16mm diameter cadmium plated mild steel mounted bracket to be installed on chimneys of 500mm long lightning conductor air termination finials	No		6			
16/56	70mm <sup>2</sup> double-holed cable lug with crimp socket for joining aluminium conductor or copper earth wire conductor to steel roofs	No		12			
16/57	70mm <sup>2</sup> crimping ferrule (sleeve) for jointing circular aluminium conductors to copper conductor on air termination/down conductors-shape cable to earth rod thermoweld connector	No		10			
16/58	70mm <sup>2</sup> T joint ferrule for air termination conductors (copper cadmium plated)	No		4			
16/59	Brass termination clamp	No		10			
16/60	Mild steel U bolt clamp for bonding of reinforcing steel	No		10			
16/61	Flexible earth link for continuity links and bands to gates, fences, equipment, doors plants etc		Item				
<b>Carried Forward</b>							E
Bill No. 16 Electrical Installation <b>Manzini Trade Hub</b>							

<b>Brought Forward</b>			E
<b><u>Telephone installation</u></b>			
Supply and install data / telephone points as specified			
Telephone reticulation wireways to be PVC sleeving concealed at appropriate depths in ground or concrete complete with steel draw wires			
16/62	600 x 600 150mm deep weather proof flush mounted telephone distribution board complete with steel lockable door (colour white)	No	3
16/63	1000 x 1000 x 700mm deep telephone / power manhole with heavy duty steel cover colour dark green (dimensions are internal)	No	8
16/64	Flush wall-mounted telephone outlet complete with white cover and 25mm diameter pvc conduiting and 100 x 100mm steel conduit box and galvanised steel draw wire in place	No	6
16/65	Telephone / data outlet complete with white cover and 25mm pvc conduiting and 100 x 100mm steel conduit box and galvanised steel draw wire in place in power skirting	No	4
16/66	Flush mounted TV draw box 10 x 100mm galvanised steel draw wire in place	No	4
16/67	50mm diameter PVC sleeve	m	100
16/68	110mm diameter pvc sleeve	m	200
<b>Carried to Summary</b>			E
Bill No. 16 Electrical Installation <b>Manzini Trade Hub</b>			

Item No		Quantity	Rate	Amount
	<b><u>PROVISIONAL SUMS</u></b>			
	<u>Water supply</u>			
17/1	Allow the nett provisional sum of E 3 000.00 (Thirty Thousand Emalangeni) for the installation and execution of pressure systems, tanks, etc, complete	Item		30 000.00
17/2	Profit		%	
17/3	Allow for the attendance required		%	
	<u>Ballustrades and Handrails</u>			
17/4	Allow the nett provisional sum of E 35 000.00 (Thirty Five Thousand Emalangeni) for the installation and execution of balustrades, complete	Item		35 000.00
17/5	Profit		%	
17/6	Allow for the attendance required		%	
	<b>Carried to Summary</b>		E	
	Bill No. 17 Provisional Sums and P.C. Amounts <b>Manzini Trade Hub</b>			

<b>Bill No</b>	<b><u>FINAL SUMMARY</u></b>	<b>Page No</b>		<b>Amount</b>
1	Preliminaries	2		
2	Earthworks	4		
3	Concrete, Formwork and Reinforcement	8		
4	Masonry	11		
5	Waterproofing	12		
6	Roof Coverings, etc	14		
7	Carpentry and Joinery	17		
8	Iron Mongery	19		
9	Metalwork	21		
10	Plastering	22		
11	Tiling	23		
12	Plumbing and Drainage	31		
13	Glazing	32		
14	Painting Work	34		
15	External Work	36		
16	Electrical Installation	43		
17	Provisional Sums and P.C. Amounts	44		
	Sub Total 1		E	
	Add: Contingencies 5% (five percent) of the above sub-total to be used as directed by the Architect or deducted in whole or in part not required		E	
	Sub Total 2		E	
	<b>Carried Forward</b>		E	
	<b>Manzini Trade Hub</b>			

Bill No	<u>FINAL SUMMARY</u>	Page No	Amount
	<b>Brought Forward</b>		E
	Add: C.I.C Levy @ _%		%
	<b>Carried to Form of Tender</b>		E
	<b>Manzini Trade Hub</b>		