

PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD					
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
<b>BILL NO. 3 :</b>					
<b>GUARD HOUSE AND STORES OFFICE</b>					
<b>ELEMENT NO 1. :</b>					
<b>SUBSTRUCTURES(ALL PROVISIONAL)</b>					
<b>EARTHWORKS</b>					
A	Excavate for column pits; depth n.e 1.5m; from reduced level	22	Cm		
B	Excavate for trench; depth n.e 1.5m; from reduced level	40	Cm		
C	Site dewatering	1	Item		
D	Planking and strutting	1	Item		
E	Load and cart away surplus soil from site	29	Cm		
F	Return, fill and ram selected excavated material around foundations.	33	Cm		
G	50mm quarry chips or murrum dust blinding	114	Sm		
H	Chemical anti- termite treatment as "Gladiator TC" or other equal and approved termicide sprayed over surfaces of hardcore bed and walls.	114	Sm		
J	1000 gauge Damp Proof Membrane polythene sheet over blinded hardcore laid under floor slab	114	Sm		
<b>CONCRETE WORK</b>					
K	50 mm thick concrete blinding class 15/20; to column bases	15	Sm		
<b>Carried to collection</b>					

*Handwritten signature/initials*

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	Ditto; to strip footing	33	Sm		
B	Vibrated reinforced concrete class 25/20; to column bases	5	Cm		
C	Ditto; to strip footing	7	Cm		
D	Ditto; to columns	1	Cm		
E	Ditto; to 150mm thick floor slab	114	Sm		
	<b><u>FORMWORK</u></b>				
F	Sawn cypress formwork; to column bases	24	Sm		
G	Ditto; to columns	16	Sm		
H	Ditto; to strip footing; girth exc. 150mm but n.e 225mm	176	Lm		
J	Ditto; to edges of 150mm floor slab; girth exc. 75mm but n.e 150mm	61	Lm		
	<b><u>REINFORCEMENT</u></b>				
K	BRC Mesh Ref. A142 ;weighing 2.22 kg/m2	114	Sm		
	<u>Mild steel bar reinforcement to BS 4449 (Provisional)</u>				
L	8mm Diameter bars	127	Kg		
	<u>High yield square twisted bar reinforcement to BS 4461 (Provisional)</u>				
M	10mm Ditto	266	Kg		
	<u>Natural quarry stone machine dressed walling in cement and sand, mortar (1:4) with 26 gauge hoop iron in every alternate course (price for the material available in the region)</u>				
N	200mm thick masonry strip walling	73	Sm		
	<b><u>PLINTHS</u></b>				
O	Plinths rendered of cement and sand mix(1:3)	18	Sm		
P	Prepare and apply 3 coats black bituminous paint	18	Sm		
	Carried to collection				

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PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD					
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Collection</u>				
	Brought forward from 3/1				
	Brought forward from 3/2				
	<u>ELEMENT NO.1. TOTAL FOR SUBSTRUCTURES</u> <u>CARRIED TO SECTION SUMMARY</u>				

GPN

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO. 2 :</u></b>				
	<b><u>REINFORCED CONCRETE SUPERSTRUCTURE</u></b>				
A	Vibrated reinforced concrete class 25/20; to columns	2	Cm		
B	Ditto; to ground beam and ring beam	8	Cm		
	<b><u>FORMWORK</u></b>				
C	Sawn cypress formwork; to sides columns	32	Sm		
D	Ditto; to sides of ground beam and ring beam	80	Sm		
E	Ditto; to soffits of ring beam	13	Sm		
	<b><u>REINFORCEMENT</u></b>				
	<b><u>Mild steel bar reinforcement to BS 4449 (Provisional)</u></b>				
F	8mm Diameter bars	315	Kg		
	<b><u>High yield square twisted bar reinforcement to BS 4461 (Provisional)</u></b>				
G	10mm Ditto	645	Kg		
	<b><u>ELEMENT NO.2. TOTAL FOR RC SUPERSTRUCTURE CARRIED TO SECTION SUMMARY</u></b>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO. 3 :</u></b> <b><u>WALLING</u></b> <u>Natural quarry stone machine dressed walling in cement and sand, mortar (1:4) with 26 gauge hoop iron in every alternate course (price for the material available in the region)</u>				
A	200mm thick masonry walling	103	Sm		
B	200 mm wide Damp proof course	70	Lm		
A	150mm thick masonry walling	65	Sm		
B	150 mm wide Damp proof course	28	Lm		
	<b><u>ELEMENT NO.3. TOTAL FOR WALLING CARRIED TO SECTION SUMMARY</u></b>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO. 4 :</u></b> <b><u>ROOFING</u></b> <u>Roof structure (Provisional)</u> <u>The Following in assorted sawn celcured timber trusses and common rafters, tie beams, struts and ties : hoisting and fixing at 2700 mm above ground level; with and including all nails, bolts, plates, welds, etc and all connections as detailed to (provisional)</u>				
A	Trusses to roof	1	Item		
B	50 x 100mm ridge members	17	Lm		
C	50 x 100mm hip members	25	Lm		
D	50 x 100mm valley members	5	Lm		
	<u>Wall Plate</u> 50 x 100mm Wall plate : fixed with and including 12mm diameter mild steel ragbolt 150mm long at 900mm centres : cast in ring beams				
E		70	Lm		
	<u>Wrot cypress : 1st grade : selected and kept clean</u> 15mm Thick x 100mm wide tongued and grooved eaves boarding				
F		43	Sm		
G	25 x 250mm Fascia board	71	Lm		
	<u>Roof covering</u> <u>Supply and fix prepainted gauge galvanised corrugated iron roofing sheets as per approved roofing sheets including timber battens/ purlins: hang and bolted nailed twice onto timber purlins; to main roof level; as described to:-</u> Coverings to 22.5 degrees prepainted GI box profile nailed on timber purlins : nailed on every third course				
H		165	Sm		
	<u>Roofing accessories to match roofing sheets as described to:</u> Standard ridge cover				
J		17	Lm		
K	Standard hip cover	25	Lm		
	<u>Sheet metal flashing : 18 gauge galvanised mild steel</u> Valley gutter lining 475mm girth : six labours : fixed to timber battens				
L		5	Lm		
	Carried to collection				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Collection</u>				
	Brought forward from 3/6				
	Brought forward from 3/7				
	<u>ELEMENT NO.4. TOTAL FOR ROOFING CARRIED TO SECTION SUMMARY</u>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO. 5 :</u></b>				
	<b><u>DOORS</u></b>				
	<b><u>STEEL DOORS</u></b>				
	<u>Purpose made standard section steel casement doors : supplied with handles, two lever mortice lock and hinges : 4mm clear sheet glass : fixed with lugs built into concrete or stone walls : pointed externally in mastic : one shop coat primer</u>				
A	Panel door double leaf size 1600 x 2400mm high : with panels each size 300 x 300mm; and a 900 x 900mm high bottom panel welded over with 3mm flat one face : and 1 no fixed top fanlight 300mm high.	1	No		
	<u>Prepare touch up primer and apply two undercoats and one finishing coat Aluminium gloss paint : on metal</u>				
B	General surfaces : glazed panel doors : (both sides measured flat overall)	8	Sm		
	<b><u>TIMBER DOORS</u></b>				
	<u>Wrot hardwood purpose made framed frames and framings</u>				
C	150 x 50 mm; 4 No. labours; plugged door frame	57	Lm		
D	50 x 25mm architraves with 4 No. labours	57	Lm		
E	20 x 20mm quadrants with 3 No. labours	57	Lm		
	<u>Wrot hardwood timber : Semi-solid core flush door to details : all to approval</u>				
F	50mm Door overall size 900 x 2000mm	10	No		
G	50mm Door overall size 1200 x 2000mm	1	No		
	<u>Prepare and prime before fixing: on woodwork</u>				
H	Frames ; over 100 but not exceeding 200mm girth	57	Lm		
	Carried to collection				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Prepare and apply three coats polyurethane clear varnish : on wood work</u>				
A	General surfaces : doors	43	Sm		
B	Frames : over 100 but not exceeding 200mm girth	57	Lm		
	<u>Iron mongery</u>				
	<u>Supply and fix the following to UNION catalogue or other equal and approved</u>				
	<i>To softwood, hardwood or the like fixing with screws</i>				
C	Two lever mortice lock complete with set lever Brass handle furniture	12	No		
D	100mm steel butt hinges	42	No		
E	"Briton" 2003 overhead door closer or equival and approved	5	No		
	<u>Carried to collection</u>				
	<b><u>Collection</u></b>				
	Brought forward from 3/8				
	Brought forward from 3/9				
	<u>ELEMENT NO.5 : TOTAL FOR DOORS CARRIED TO SECTION SUMMARY</u>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO. 6 : WINDOWS</u></b>				
	<u>Aluminium casement windows</u>				
	<u>Supply, assemble and fix the following purpose-made natural aluminium casement windows; sealed with rubber film to make it airtight;</u>				
A	Window; Overall size 3000mm x 1500mm high glazed with 4mm one way tinted and toughened clear sheet glass; with three equal partitions; One permanent partition at the center and two sliding partitions on both sides; each size 1000mm;	4	No		
B	Ditto; Overall size 600mm x 900mm high glazed with 4mm toughened obscure sheet glass; with two equal sliding partitions size 450mm;	8	No		
C	Ditto; Overall size 1000mm x 900mm high glazed with 4mm one way tinted and toughened clear sheet glass; with two equal sliding partitions size 500mm;	4	No		
	<u>ELEMENT NO.6 : TOTAL FOR WINDOWS CARRIED TO SECTION SUMMARY</u>				

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
<b><u>ELEMENT NO. 7 : FINISHES</u></b>					
<b><u>FLOOR FINISHES</u></b>					
A	<u>Cement and sand (1:4) trowelled beds : on concrete : to 32mm Floors : finished to receive granito tile flooring</u>	101	Sm		
B	<u>Coloured Non-slip granito 'Mosaic' floor tiles size 400 x 400 x 8mm as approved by the Architect : bedded on cement and sand screeds (measured separately) : jointed and grouted in matching colour cement mortar</u> Floors	101	Sm		
C	100mm skirtings ditto	88	Lm		
<b><u>EXTERNAL WALL FINISHES</u></b>					
D	<u>15mm Cement and sand (1:4) render : wood float finish : on concrete or stonework : to</u> External walls and columns	130	Sm		
E	<u>Prepare and apply one undercoat and two finishing coats 1st grade exterior quality marine paint: to</u> External walls and columns	130	Sm		
<b><u>INTERNAL WALL FINISHES</u></b>					
F	<u>12mm Lime plaster : steel trowelled finish: on concrete blockwork or stonework : to</u> Walls and columns	246	Sm		
G	<u>Prepare and apply one undercoat and two finishing coats oil-based paint full emulsion to Crown Solo or other equal and approved to: -</u> On internal walls and columns	246	Sm		
H	<u>Wall glazed ceramic wall tiles size 250 x 330 x 6mm as approved by the Architect : on and including cement and sand backing : fixed with approved quality adhesive : grouted, jointed and pointed in matching colour cement mortar : on</u> Walls; in washrooms	46	Sm		
	<u>Carried to collection</u>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>CEILING FINISHES</u>				
	<u>Chipboard ceiling lining</u>				
A	13mm Chipboard ceiling lining : fixed to and including 50 x 50mm sawn cypress brandering (ms) : with and including chamfered joints	101	Sm		
B	Extra over for forming 600 x 600mm access door trap ; 25 x 100mm wrot cypress frame and 20 x 50mm wrot cypress stopper : piano hinges : door catch	3	No		
	<u>Sawn cypress : pressure impregnated</u>				
C	50 x 50mm Brandering; 1m c/c	260	Lm		
D	Ditto ; plugged	94	Lm		
	<u>Wrot cypress : knot free: suitable for clear varnish finish : selected and kept clean</u>				
E	100 x 25mm Moulded cornice	94	Lm		
	<u>Prepare and prime before fixing : on woodwork</u>				
F	Cornice : not exceeding 100mm girth	94	Lm		
	<u>Prepare and apply three coats 1st grade white plastic emulsion paint : to</u>				
G	Chipboard soffits	101	Sm		
	<u>Prepare and knot coated surfaces : apply two undercoats and one finishing white coat gloss paint : on woodwork</u>				
H	Cornice : Over 100 but not exceeding 200m girth	94	Lm		
	<u>Carried to collection</u>				
	<u>Collection</u>				
	Brought forward from 3/11				
	Brought forward from 3/12				
	<u>ELEMENT NO.7 : TOTAL FOR FINISHES CARRIED TO SECTION SUMMARY</u>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
<b><u>ELEMENT NO. 8 : JOINNERY, FITTINGS AND FIXTURES</u></b>					
<b><u>KITCHENETTE</u></b>					
	<b><u>Plinth</u></b>				
A	1:3:6 mass concrete concrete as described in 100mm thick high plinth in kitchen		1 Sm		
B	<u>VRC class(20/20)mix 1:2:4 as described in</u> 100mm thick kitchen worktops		1 Sm		
C	<u>32mm cement sand (1:4) screed trowelled hard and smooth and finished with cement grout as described in</u> Surface finish to surface of plinth		1 Sm		
D	<u>Work tops</u> <u>Approved granito floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement</u> 600X600X10mm thick; butt joints both ways; to cement sand base (m/s); to floors level; internal		1 Sm		
E	<u>Kitchen cabinets: carcass produced from 18mm white particleboard, 3mm white backer &amp; standard furniture fittings including installation but excluding counter tops &amp; appliances; all to staisfaction of the PM.</u> 720mm high x 600mm depth x varying length low level cabinetry complete with mahogany veneered doors, ironmongery (malpha hinges, D handles, magnetic ball catcher) and the like but excluding plinths		2 Lm		
	<u>Carried to collection</u>				

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PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD					
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<u>MDF board partition</u> Supply and install 18mm MDF board; laminated both sides;at kitchen area; include mounting to the wall by nailing or other appropriate means; as directed on site	5	Sm		
B	<u>Noticeboard</u> Supply and fix 1500x1200mm soft board noticeboard complete with all aluminum framing/ beading; and approved fabric finish and two packets of thump pins per notice board	2	No		
	<u>Carried to collection</u>				
	<u>Collection</u>  Brought forward from 3/13  Brought forward from 3/14				
	<u>ELEMENT NO.8 : TOTAL FOR JOINNERY, FITTINGS AND FIXTURES CARRIED TO SECTION SUMMARY</u>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<p><b><u>ELEMENT NO. 9 : SANITARY AND PLUMBING FITTINGS</u></b></p> <p><u>Supply, deliver, install, test and commission the following sanitary appliances complete with all the accessories including all connections to the services, waste, jointing to water supply overflows, supports and all plugging and screwing to walls and floors.</u></p> <p><b>Note:</b></p> <p><u>(i) All sanitary fittings shall be in approved colour.</u></p> <p><u>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</u></p> <p><u>(iii) Equivalent and Approved models may be acceptable.</u></p>				
A	<p><b>Water closet (wc) suite</b></p> <p>Compete close coupled wash down water closet in approved colour classic low level ceramic; consisting of pan, heavy duty plastic seat and cover, ceramic cistern, flush pipe 'P' trap; complete with horizontal outlet to BS 3402 with valveless cistern fittings including syphon, 15mm bottom inlet valve, 20mm bottom overflow, bolts and connecting fitments from cistern bowl, chrome-plated lever, all as Twyfords or approved equivalent.</p>	4	No		
B	<p><b>Wash hand basin</b> as 'Debbigh Shires 2TH' or equal and approved; large; ceramic complete with delay action chrome plated push taps, 32mm plastic bottle trap, waste out-go plug and chain; wall hung with brackets; all to approval</p>	5	No		
C	<p><b>Hinged support rail</b> with toilet roll holder 770mm long manufactured in nylon coated aluminium and mounted on a wall fixing plate plate size 230x100 mm, 4No. 600mm grab rails with covered wall plates.</p> <p>The set shall be as Twyfords DOC.M wheelchair accessible W.C. facility or approved equivalent.</p>	1	Set		
	Carried to collection				

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<b>Sink pillar tap</b> 1/4 turn; chrome plated ; to kitchen sink	1	No		
B	<b>Peglar Brass bib Tap</b> 1/2"; to bathrooms	2	No		
C	<b>Shower rose</b> ; 6' Chrome plated; with wall round fixed arm; complete with all accessories	2	No		
A	<b>Toilet paper dispenser</b> ; including mounting to wall; all to PM's approval	2	No		
B	<b>Manual soap dispenser</b> ; including mounting to wall; all to PM's approval	2	No		
C	<b>Paper towel dispenser</b> ; including mounting to wall; all to PM's approval	4	No		
D	<b>Mirrors</b> 6mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 1800mm, plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam.	2	No		
F	<b>Urinal</b> range Double Urinal bowl in white vitreous china complete with 14 litres automatic ceramic cistern ref CX 8611 WH, and fittings including siphon ball valve, cistern supports and drip tap in brass, chrome plated bottle trap, chrome plated flushpipe and spreader ref SS 6071SS with all connections, wall hangers/supports and divisions. To be as Twyford's 'Camden' or approved equivalent; to PM's approval and satisfaction	1	No		
D	<b>Kitchen sink</b> Supply and fix kitchen sink as stainless single pole single drainer sink according to Manufacturer's instructions and jointings to service, overflow, waste pipe	1	No		
	Carried to collection				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Collection</u>				
	Brought forward from 3/15				
	Brought forward from 3/16				
	<u>ELEMENT NO.9 : TOTAL FOR SANITARY AND PLUMBING FITTINGS CARRIED TO SECTION SUMMARY</u>				

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PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD				
ITEM	DESCRIPTION	QTY	UNIT	K.SHS
	<b><u>ELEMENT NO. 10 : BUILDERS'S WORKS</u></b>			
A	<u>Builders work in connection with Plumbing Installations</u> <u>Cut away for sanitary fittings and pipework ; form all holes, chases, etc ; and make good after the plumber</u> Allow a Provisional Sum of Ksh Forty Thousand Only (Ksh 40,000.00) for Builders work in connection with Plumbing and Drainage Installations	1	Item	
B	<u>Builders work in connection with Electrical Installations</u> <u>Cut away for electrical points, fittings and equipment : make good after the electrician : concealed type system (provisional)</u> Allow a Provisional Sum of Ksh Forty Thousand Only (Ksh 40,000.00) for Builders work in connection with Electrical Installations	1	Item	
	<u>ELEMENT NO.10 : TOTAL FOR BUILDERS'S WORKS CARRIED TO SECTION SUMMARY</u>			

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>SECTION SUMMARY</u>				
	<u>BILL 3</u>				
	<u>GUARD HOUSE AND STORES OFFICE</u>			<u>Page No.</u>	<u>Amount</u>
1	SUBSTRUCTURES			3/3	
2	REINFORCED CONCRETE SUPERSTRUCTURE			3/4	
3	WALLING			3/5	
4	ROOFING			3/7	
5	DOORS			3/9	
6	WINDOWS			3/10	
7	FINISHES			3/12	
8	JOINERY FITTINGS AND FIXTURES			3/14	
9	SANITARY AND PLUMBING FITTINGS			3/17	
10	BUILDER'S WORKS			3/18	
	<b>Sub Total carried to Grand Summary</b>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>BILL NO. 4</b>				
	<b><u>CONTAINER PLINTH AND ROOFING</u></b>				
	<b><u>ELEMENT 1: PLINTH</u></b>				
	<b><u>SUBSTRUCTURES(ALL PROVISIONAL)</u></b>				
	<b><u>EARTHWORKS</u></b>				
A	Excavate for trench; depth n.e 1.5m; from reduced level	18	Cm		
B	Site dewatering	1	Item		
C	Planking and strutting	1	Item		
D	Load and cart away surplus soil from site	9	Cm		
E	Return, fill and ram selected excavated material around foundations	8	Cm		
F	300mm thick approved imported hardcore filling spread, levelled, well compacted, rammed and consolidated in 150mm thick layers to receive concrete surface bed (m.s)	12	Cm		
G	50mm quarry chips or murrum dust blinding	42	Sm		
	<b><u>CONCRETE WORK</u></b>				
H	50 mm thick sand blinding class 15/20; to strip footing	20	Sm		
J	Vibrated reinforced concrete class 20/20; to strip footing	4	Cm		
K	Ditto; to 150mm thick floor slab	42	Sm		
	<b><u>FORMWORK</u></b>				
L	Sawn cypress formwork; to strip footing	11	Sm		
M	Ditto; to 150mm container plinth	5	Sm		
	<b><u>REINFORCEMENT</u></b>				
N	BRC Mesh Ref. A142 ;weighing 2.22 kg/m2	42	Sm		
	<b><u>Mild steel bar reinforcement to BS 4449 (Provisional)</u></b>				
P	8mm Diameter bars	43	Kg		
	<b><u>High yield square twisted bar reinforcement to BS 4461 (Provisional)</u></b>				
Q	10mm Ditto	57	Kg		
	<b><u>WALLING</u></b>				
R	200 mm thick natural stone foundation walling bedded in c/s mortar	31	Sm		
	<i>Carried to Collection</i>				

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT 2</u></b>				
	<b><u>ROOFING</u></b>				
	<b><u>Roof covering</u></b>				
A	Roof covering; Prepainted blue Box profile sheets; 28 gauge; laid on 150mm laps on one end and one and a half box profiles side lap; and bolting and welding to 50 x 25 x 2mm thick RHS purlins (m/s) at 1200mm c/c	26	Sm		
	<b><u>Accessories, fixing as necessary to roof sheets</u></b>				
B	150mm dia. Half round ridge sheet	9	Lm		
C	Ditto; hips	9	Lm		
	<b><u>Steel roof structure</u></b>				
D	50 x 50 x 4mm thick prepainted aluminium angle lines; appropriately bolted using cleats and including drilling to make nut holes, and welding where necessary; and including joinery accessories; to be used as rafters, joists and kingposts; spanning 1000mm c/c; welded to the container; 50 x 25 x 2mm thick RHS purlins(m/s) welded to angle rafters; all to PM's specifications, approval and satisfaction	92	Lm		
E	Prepainted aluminium 50 x 25 x 2mm thick RHS purlins; 14 gauge; appropriately welded and bolted to the angle line rafters using four bolt cleats or other approved jointing method; and including necessary joinery accessories; spanning 1000mm c/c	179	Kg		
	<b><u>Rainwater Goods; to container, stores office and guardhouse</u></b>				
F	24G x 150mm prepainted GCI box gutters; joined appropriately to the roof with brackets spaced at 200mm c/c	80	Lm		
G	Extra over for stopped ends	14	No		
H	Ditto for nozzle outlets	7	No		
J	140mm diameter (heavy gauge) gutter support brackets spaced at 200mm c/c	372	No		
K	24G x100 dia GCI box rain water downpipes with clips on container wall at 900mm centres	19	Lm		
L	Extra over ditto for swan neck	7	No		
M	Extra over ditto for shoe	7	No		
	<i>Carried to Collection</i>				

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT 3</u></b>				
	<b><u>FINISHES</u></b>				
	<b><u>Wall Finishes</u></b>				
	<u>12mm Lime plaster : steel trowelled finish: on concrete blockwork or stonework : to</u>				
A	On wall surfaces	10	Sm		
	<u>Prepare and apply three coats black bituminous paint to Crown Solo or other equal and approved to: -</u>				
B	On wall surfaces	10	Sm		
C	Prepare and apply two coats first quality gloss paint in corporate colors; to metallic container exterior surface	85	Sm		
	<b><u>Floor Finishes</u></b>				
	<u>Cement and sand (1:4) trowelled beds : on concrete : to</u>				
D	32mm screed mixed with red oxide; to surface of slab	42	Sm		
	<i>Carried to Collection</i>				

SBN

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SECTION SUMMARY</u> <u>BILL 4</u> <u>CONTAINER PLINTH AND ROOFING</u>			<u>Page No.</u>	<u>Amount</u>
1	CONTAINER PLINTH			4/1	
2	ROOFING			4/2	
3	FINISHES			4/3	
	<b>Sub Total carried to Grand Summary</b>				

*SBW*



**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
<b>BILL NO. 5</b> <b>EXTERNAL AND CIVIL WORKS</b> <b>ELEMENT NO.1</b> <b>CHAIN LINK FENCING</b>					
A	Excavate pit in normal soil for posts starting from ground level to a depth n.e 1.50 m deep	1	Cm		
B	Supply and erect 125 x 150mm averaging 3metres high cranked on one side precast concrete posts, fitted to receive straining wire (m/s)and mortised in mass concrete (m/s); To PM's approval	24	No		
C	Extra over ditto for 1.8m long struts every 8 metres and at the corner post supports	10	No		
D	Mass concrete in excavated holes in (1:3:6) class Q including waterproofing additives	1	Cm		
E	12.5 high tensile galvanized wire 50kg per roll	134	Lm		
F	20kg x 12.5 heavy gauge galvanized barbed wire to concrete posts or any other equal and approved	268	Lm		
G	Supply and fix heavy gauge (14) green plastic coated chain link to a height of 2400mm all to project manager's approval and satisfaction; including all necessary strainings to approved tension; to PM's approval	161	Sm		
ELEMENT NO.1 : TOTAL FOR CHAINLINK FENCING CARRIED TO SECTION SUMMARY					

*SPW*

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO.2</u></b>				
	<b><u>PERIMETER WALL</u></b>				
	<b><u>SUBSTRUCTURE EARTHWORKS</u></b>				
A	Excavation for column pits; Depth n.e 1.5m	8	Cm		
B	Excavation for trench; Depth n.e 1.5m	11	Cm		
C	Load and Cart away surplus material	9	Cm		
D	Return, fill and ram excavated material	10	Cm		
E	Site dewatering	1	Item		
F	Planking and strutting	1	Item		
	<b><u>CONCRETE WORK</u></b>				
G	50 mm thick concrete blinding class 15/20; to column bases	7	Sm		
H	Ditto; to strip footing	10	Sm		
	<b><u>In situ concrete : class 25/20 mm : vibrated : reinforced</u></b>				
J	Column bases	2	Cm		
K	Strip footing	3	Cm		
L	Columns	1	Cm		
	<b><u>Mild steel bar reinforcement to BS 4449 (Provisional)</u></b>				
M	8mm Diameter bars	54	Kg		
	<b><u>High yield square twisted bar reinforcement to BS 4461 (Provisional)</u></b>				
N	12mm Ditto	189	Kg		
	<b><u>Sawn formwork : to</u></b>				
P	Sides of column bases	8	m2		
Q	Sides of strip footing	9	m2		
R	Sides of columns	6	m2		
	<b><u>WALLING</u></b>				
S	200 mm thick hard natural stone walling; quarry-dressed; bedded and jointed in cement sand (1:3) mortar; reinforced with hoop iron at alternate courses	19	Sm		
T	200mm felt Damp Proof Course	21	Lm		
	<i>Carried to next page</i>				

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<i>Brought forward</i>				
	<b>SUPERSTRUCTURE</b>				
	<b><u>In situ concrete : class 25/20 mm : vibrated : reinforced</u></b>				
A	Columns	1	Cm		
B	Ground beam	1	Cm		
	<b><u>Mild steel bar reinforcement to BS 4449 (Provisional)</u></b>				
C	8mm Diameter bars	86	Kg		
	<b><u>High yield square twisted bar reinforcement to BS 4461 (Provisional)</u></b>				
D	12mm Ditto	160	Kg		
	<b><u>Sawn formwork : to</u></b>				
E	Sides of columns	21	Sm		
F	Sides of beam	10	Sm		
	<b><u>WALLING</u></b>				
G	200 mm thick machine dressed natural stone walling; quarry-dressed; bedded and jointed in cement sand (1:3) mortar; reinforced with hoop iron at alternate courses	60	Sm		
	<b><u>Precast concrete</u></b>				
H	350 x 50mm precast concrete coping; throated on both ends; to PM's approval and satisfaction	24	Lm		
	<b><u>Wall Finishes</u></b>				
	<b><u>15mm Cement and sand (1:4) render : wood float finish : on concrete or stonework : to</u></b>				
J	External walls and columns	144	Sm		
	<b><u>Prepare and apply one undercoat and two finishing coats 1st grade exterior quality marine paint: to</u></b>				
K	External walls and columns	144	Sm		
	<b><u>ELEMENT NO.2 : TOTAL FOR PERIMETER WALLING CARRIED TO SECTION SUMMARY</u></b>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<p><u>ELEMENT NO.3</u> <u>MAIN GATE</u></p> <p>Allow for removal of existing gate and hand over to client for reuse; Prepare the columns to receive perimeter walling to seal off the entrance</p>	1	Item		
B	<p>Allow for fabrication and fixing of branded double-leaf gate overall size 6000x2100mm high in RHS framing size 50x25x3mm thick and 25x25x3mm SHS filled to the level of the wall done in metal grills to match those on the perimeter wall; hung at three points both sides in the metal lugs in concrete columns and allow for a 600x1200mm high wicket gate hung at three points on the main frame and including padbolts, towerbolts and means of securing as 'necessary and apply two coats red-lead oxide primer' before fixing and two coats of gloss oil paint as "Crown Berger" to the client's approval and satisfaction; and erect it on vibrated reinforced concrete C25/20 column supports(m/s)</p>	1	Item		
	<u>ELEMENT NO.3 : TOTAL FOR GATE CARRIED TO SECTION SUMMARY</u>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO.4</u></b> <b><u>EXTERNAL CONCRETE PAVING WORKS</u></b> <b><u>(ALL PROVISIONAL)</u></b> <b>GENERAL YARD PAVING</b>				
A	Allow for survey & levelling works including measurements before site clearance, during excavations, grading and during levelling	1	Item		
	<b><u>CIVIL WORKS</u></b>				
B	Clear site including removal of vegetation and any other unwanted materials as shall be directed on site and cart away	1955	Sm		
C	Mechanically excavate ALL loose soil oversite to reduce levels commencing at existing ground level but not exceeding 1.5 metre deep. Load and cart away the excavated spoil from site to designated County dumping sites	782	Cm		
D	Level and compact the bottom of the excavated site to receive hard core fill	1955	Sm		
E	Return, Fill and Ram with imported red soil compacting in layers n.e 150mm thick	195	Cm		
F	Fill up excavation with handpacked approved hardcore to make up levels mechanically compacted in individual layers n.e 150mm thick	586	Cm		
G	200mm approved murrum filling; mechanically compacted in individual layers n.e 100mm thick	139	Cm		
H	125 x 250mm Precast concrete (class 20) kerb straight with one chamfered edge laid on and including 450 x 100mm plain concrete (1:3:6) foundation haunched up on one side including all necessary excavations formwork etc.	204	Lm		
J	Ditto but curved 125 x 100mm PC	18	Lm		
K	125 x 100 Precast concrete (class 20) Channels (Staight)	46	Lm		
	Carried to Collection				

*SBW*

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	Supply and lay heavy duty 80mm thick interlocking concrete paving blocks to client's approval and satisfaction and including 50mm sand bed; Roller vibrated to approval	1351	Sm		
B	175 x 800mm precast cut off drain (600mm wide) class 20 laid on and including palin concrete (1:3:6) foundation; haunching up; including all necessary excavations and formwork	180	Lm		
C	Supply and lay 500 x 500 x 50mm thick concrete paving slabs to client's approval and satisfaction and including 50mm sand bed around the building as directed; include keying and haunching as directed by PM	71	Sm		
D	<u>Culverts</u> 600mm diameter twin precast concrete culvert; including excavation, fixing, filling and testing; to link up with invert drain; including concrete cover frames at both sides; to be installed at the entrance	12	Lm		
Carried to Collection					
<u>Collection</u>					
	Brought forward from 5/5				
	Brought forward from 5/6				
<u>ELEMENT NO.4 : TOTAL FOR EXTERNAL CONCRETE PAVING WORKS CARRIED TO SECTION SUMMARY</u>					

*SBN*

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO.5</u></b>				
	<b><u>RETAINING WALL</u></b>				
	<b><u>SUBSTRUCTURE EARTHWORKS</u></b>				
A	Excavation for trench; Depth n.e 1.5m	138	Cm		
B	Load and Cart away surplus material	77	Cm		
C	Return, fill and ram excavated material	62	Cm		
D	Site dewatering	1	Item		
E	Planking and strutting	1	Item		
	<b><u>CONCRETE WORK</u></b>				
F	50 mm thick concrete blinding class 15/20; to strip footing	132	Sm		
	<b><u>Insitu concrete : class 25/20 mm : vibrated : reinforced</u></b>				
G	Strip footing	26	Cm		
	<b><u>Mild steel bar reinforcement to BS 4449 (Provisional)</u></b>				
H	8mm Diameter bars	336	Kg		
	<b><u>High yield square twisted bar reinforcement to BS 4461 (Provisional)</u></b>				
J	12mm Ditto	586	Kg		
	<b><u>Sawn formwork : to</u></b>				
K	Sides of strip footing	110	m2		
	<b><u>WALLING</u></b>				
L	200 mm thick hard natural stone walling; quarry-dressed; bedded and jointed in cement sand (1:3) mortar; reinforced with hoop iron at alternate courses	253	Sm		
	<b><u>ELEMENT NO.5 : TOTAL FOR RETAINING WALL CARRIED TO SECTION SUMMARY</u></b>				

*SAW*

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>ELEMENT NO.6</u></b> <b><u>EXTERNAL LIGHTING</u></b>				
A	50W LED flood light lamp overall size 206 x 145.5mm with powder coated steel plate casement with holder complete with integral control gear, wiring in 1.5mm <sup>2</sup> twin with earth sheathed cable from the distribution board for a height up to 3 metres on the wall	4	No		
B	60A/30mA ELCB as MEM or approved equivalent	3	No		
C	Photo electric cell (Timer) as THORN cat No. QPK or approved equivalent	4	No		
	<b><u>ELEMENT NO.5 : TOTAL FOR EXTERNAL LIGHTING CARRIED TO SECTION SUMMARY</u></b>				

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
<u>SECTION SUMMARY</u>					
<u>BILL 5</u>					
<u>EXTERNAL AND CIVIL WORKS</u>					
				<u>Page No.</u>	<u>Amount</u>
1	CHAINLINK FENCING			5/1	
2	PERIMETER WALL			5/3	
3	GATE			5/4	
4	EXTERNAL CONCRETE PAVING WORKS			5/6	
5	RETAINING WALL			5/7	
6	EXTERNAL LIGHTING			5/8	
<b>Sub Total carried to Grand Summary</b>					

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**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b>BILL NO. 6</b>				
	<b><u>25PAX CAPACITY BIO DIGESTER</u></b>				
	<b><u>SUBSTRUCTURES (ALL PROVISIONAL)</u></b>				
	<u>Construct, install, test and commision biodigester waste treatment system complete with the following items to the satisfaction of the Engineer. The system is expected to treat approximately 25 persons per day</u>				
	<u>Excavation</u>				
A	Excavate pit exceeding 1.50m deep starting from ground level	4	Cm		
B	Excavate pit exceeding 1.50m deep but not exceeding 3.0m deep starting from reduced level	4	Cm		
C	Ditto 3.0 to 4.5 m deep	3	Cm		
D	Return fill and ram approved excavated material around foundations	10	Cm		
E	Load and cart away surplus excavated material	36	Cm		
F	Allow for keeping the whole excavation free from all water including spring and running water		Item		
G	Allow for plunking and strutting the whole excavation		Item		
	<b><u>Mass concrete class 'P' in:</u></b>				
H	50mm thick blinding under foundations	8	Sm		
	<b><u>Reinforced insitu concrete class 25/(20mm aggregates)</u></b>				
J	200mm thick floor bed	8	Sm		
K	200mm thick wall	24	Sm		
L	200mm thick suspended slab	10	Sm		
M	Strip foundation	1	Cm		
	<i>Carried to Collection</i>				

*SJBW*

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b><u>Reinforcement</u></b>				
	<u>Supply and fix bars reinforcement including bending, hooks, tying wire, cutting, spacers and supporting all in position as described</u>				
A	In assorted reinforcement of various sizes	360	Kg		
B	A142 weighing 2.22kg/metre sq.(measured net no allowance made for laps)	44	Sm		
	<b><u>Sawn formwork to:</u></b>				
C	Soffites of suspended slab, Sides walls and strip foundation	44	Sm		
D	Edge of bed between 150 - 225mm wide	32	Lm		
	<b><u>Water proof cement/sand (1:3) in:</u></b>				
E	20mm thick screed to sloping floor bed cross falls	6	Sm		
F	20mm thick screed trowelled hard and smooth	40	Sm		
G	20mm thick render to walls	62	Sm		
H	20mm thick render to soffites	11	Sm		
	<b><u>Sundries</u></b>				
J	Form or leave 100mm diameter hole in 200mm thick reinforced concrete wall and slab	10	No		
K	Form or leave 600 x 600mm hole in 200mm thick reinforced concrete suspended slab	2	No		
L	600 x 600mm heavy duty double seal manhole cover and frame including setting cover in concrete opening and forming rebate	2	No		
	<b><u>Approved filling</u></b>				
M	Rock and gravel backfill	6	Cm		
	<i>Carried to Collection</i>				

*SPW*

**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	Insecticide treatment on blinded surfaces with "Termidor" termicide or other equal and approved at the rate of fipromil (250gm/ litre) after dilution with water (1:100) at the rate of 5litres per square metre all in accordance with Manufacturer's Specifications		8 Sm		
B	Single layer 1000 gauge polythene sheeting with minimum 300mm side and end laps		4 Sm		
	<b><u>Natural natural stone block walling jointed in cement/sand (1:3) mortar in;</u></b>				
C	200mm thick wall		14 Sm		
	<i>Carried to Collection</i>				
	<b>COLLECTION</b>				
	From page 6/1				
	From page 6/2				
	From page above				
	<b>Subtotal carried to Grand Summary</b>				

*SJBW*



**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<b>BILL NO. 7</b>				
	<b><u>PRIME COSTS AND PROVISIONAL SUMS</u></b>				
	<b><u>Electrical Installations</u></b>				
A	Allow a Provisional Sum of Kenya Shillings Two Hundred Thousand (Ksh 200,000.00) for Electrical Installations	1	Item		
	<b><u>Plumbing and Drainage Installations</u></b>				
B	Allow a Provisional Sum of Kenya Shillings Two Hundred Thousand (Ksh 200,000.00) for Plumbing and Drainage Installations	1	Item		
	<b><u>Contingencies</u></b>				
C	Allow a Provisional Sum of Kenya Shillings Three Hundred Thousand (Ksh 500,000.00) for Contractor's Contingencies	1	Item		
	<b>Subtotal carried to Grand Summary</b>				

*SBN*





**PROPOSED CIVIL WORKS, GUARDHOUSE & STORES OFFICE FOR TAVETA YARD**

ITEM	DESCRIPTION	Page No.	K.SHS
1	Bill No. 1: Trade Preambles		
2	Bill No. 2: Preliminaries	2/15	
3	Bill No. 3: Guardhouse and stores office	3/19	
4	Bill No. 4: Container plinth and roofing	4/4	
5	Bill No. 5: External and Civil works	5/9	
6	Bill No. 6: Biodigester	6/3	
7	Bill No. 7: Prime Costs and Provisional sums	7/1	
	<b>Total</b>		
	Add 16% VAT		
	<b>GRAND TOTAL (Vat Incl.)</b>		

**Amount in words**.....

.....  
 .....

**Name of Contractor**.....

.....

**Signature & Rubber stamp**.....

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*SAW*

