

<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<p><u>SECTION 2</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>Note: For CPAP purposes workgroup 104 to apply</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between dune sand, Berea formation sand and calyey sand, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p>All excavations exceeding 1.5m in depth are to be suitably shored during construction such that adjacent structures are not undermined and the excavation is safe for access by personnel and equipment</p> <p>All excavations to be kept free of water at all times. On-site storm water management is the responsibility of the Contractor during construction</p>			
<p>Carried to Collection</p>		R	
<p>Bill 1</p> <p>Earthworks</p>			

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 necessary multiple handling of material

Testing

Prices for filling are to include for all necessary density tests in accordance with SABS 1200D

SURVEY

- | | |
|---|---|
| A | Contractor to produce a contiguous piled wall "As-Built" survey |
| B | Contractor to produce a pile "As-Built" survey |
| C | Provide the amount of R300 000-00 for land survey, to be used as directed by the architect and deducted in part or in whole if not required |

Item

Item

Item

300 000.00

TEMPORARY HOARDING

- | | |
|---|--|
| D | Provide 0,35 mm Thick suparroof IBR profile zincAL coated steel sheeting fixed to gumpoles at 1200mm centres. Gumpoles to be anchored into ground with and including 400 x 400mm concrete footing and removal of same all as directed by Engineer. |
|---|--|

m

526

TEMPORARY FENCING

- | | |
|---|---|
| E | 1800mm High temporary weldmesh fencing with 80% shade cloth fixed to posts bedded in 400 x 400 x 600mm deep concrete bases. Fence to be maintained for duration of contract and removed on completion |
|---|---|

m

35

Carried to Collection

R

Bill 1
Earthworks

F	5000 x 1800mm High gate consisting of 50mm diameter x 2,8mm thick galvanized mild steel tubing to frame and bracing and 50 x 50 x 2,5mm galvanized weld mesh 1800mm high tied to straining wires at 250mm centres to gate	No	1	
<u>DEMOLITIONS ETC</u>				
NOTE: Special attention is drawn to Clauses 1, 15, 20, 21, of the Occupational Health and Safety Act, 1993 Asbestos Regulations, 2001				
NOTE: Contractor to provide waste disposal certificate from an approved hazardous waste disposal site				
G	Demolish existing building (Orthopaedic Ward Block) complete, size approximately 27 x 13m of conventional construction consisting of brick walling, roof sheeting on timber roof trusses, concrete surface bed, steel windows, etc	No	1	
H	Demolish existing building (Psychiatric Ward A Block) complete, size approximately 33 x 11m ditto	No	1	
J	Demolish existing building (Admin Block) complete, size approximately 19 x 9m ditto	No	1	
K	Demolish existing building (Asset Store) complete, size approximately 7 x 2m ditto	No	1	
L	Demolish existing building (CMTD Workshop) size approximately 14 x 6m ditto	No	1	
M	Demolish existing brick retaining wall around Orthopaedic Ward approximately 2m high on average including all foundations, steps, etc	m	94	
N	Demolish brick retaining walls approximately 1m high ditto	m	116	
P	Demolish existing concrete walkway and apron pavings approximately 100mm thick	m2	1 493	
Carried to Collection				R
Bill 1 Earthworks				

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

Q	Decommission, disconnect existing services and relocate park home size approximately 17 x 10m (Mothers Lodge) to a facility approximately 10km away from site and establish and construct founding slabs, steps, etc. connect to existing services and recommission.	No	1		
R	Ditto park home size approximately 13 x 7m (Hast Patient Clinic) ditto	No	1		
S	Ditto park home complete size approximately 13 x 8m (Occupational Staff Clinic) ditto	No	1		
T	Extra over above item for transport cost per kilometre over 50km	km			
U	Remove existing sectional steel water tank size 2440 x 2440 x 2440mm (approximately 14.5m ³) and tank stand approximately 17m high	No	1		
V	Remove existing asbestos water tanks approximately 2000 litres capacity	No	3		
W	Demolish tank base size approximately 2000 x 2000 x 850mm high including foundations, brick walling, slab, etc	No	1		
<u>REMOVAL OF TREES ETC</u>					
<u>Cutting down and removing, grubbing up roots and filling in holes</u>					
X	LI Tree exceeding 0,5m and not exceeding 1,0m girth	No	2		
Y	LI Tree exceeding 1,0m and not exceeding 1,5m girth	No	2		
Z	LI Tree exceeding 1,5m and not exceeding 2,0m girth	No	2		
AA	LI Tree exceeding 2,0m and not exceeding 2,5m girth	No	2		
Carried to Collection					
Bill 1 Earthworks				R	

<u>SITE CLEARANCE, ETC</u>			
<u>Site clearance</u>			
AB	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	4 235
<u>UNDERPINNING</u>			
AC	Allow the sum of R300,000 (Three Hundred Thousand Rand) for underpinning adjacent structures with jack piles to be used as directed by the engineer and deducted in part or in whole if not required	Item	300 000.00
<u>BULK EXCAVATION, FILLING, ETC</u>			
<u>Cut in earth over sloping site executed after the installation of the piled lateral support wall. Special care to be taken to NOT damage this lateral support</u>			
AD	Cut to spoil to form platform	m3	10 516
<u>Extra over bulk excavation in soft material for excavation</u>			
AE	Intermediate material	m3	526
AF	Hard rock	m3	210
<u>Keeping excavations free from water</u>			
AG	Keeping bulk excavations free from water during the course of the contract	Item	
<u>Earth filling G7 material supplied by the contractor compacted in 300mm layers to 93% Mod AASHTO density</u>			
AH	LI In layers to form platform	m3	207
<u>Prescribed density tests on filling</u>			
AJ	"Modified AASHTO Density" test	No	5
Carried to Collection			R
Bill 1 Earthworks			

[illegible]

[illegible]

[illegible]

[illegible]

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

[illegible]

Item		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>BILL NO. 2</u></p> <p><u>LATERAL SUPPORT (PROVISIONAL)</u></p> <p><u>Note: For CPAP purposes workgroup 104 to apply</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>DRILLING FOR PILES</u></p> <p><u>Classification of material</u></p> <p>"Hard rock" shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives</p> <p>"Earth" shall mean all ground other than that classified as "hard rock" and shall include made-up ground and any loose stones or pieces of concrete not exceeding 0,03m³ in volume and hard material the removal of which would normally require the use of pneumatic tools and includes hard shale, ferricite, compact oukclip and material of similar hardness</p>			
	<p><u>GUARANTEE AND INSURANCE</u></p>			
A	Provision of R400,000-00 (Four Hundred Thousand Rand net) for premiums for an insurance policy against claims arising from the failure of lateral support with no limit on the number of claims that may occur	Item		400 000.00
B	Profit	Item		
	Carried to Collection		R	
	Bill 2			
	Lateral Support			

MOVEMENT MONITORING

Survey check comprising necessary surveying equipment including setting up thereof, monitoring control points accurately and providing records of the results of the survey

C	Establishing bench marks, pegs, painted lines and arrows, etc., as required for movement monitoring control, including necessary excavation, steel pegs, concrete bedding, paint, etc, and protection and maintenance thereof during the works	Item
D	Daily movement survey check of the contiguous piled wall during excavation to foundation level and until basement layerworks are complete	Item
E	Movement survey checks of the contiguous piled wall three times per week until the ground floor slab is cast	Item
F	Movement survey checks of the contiguous piled wall weekly until the first floor slab is cast	Item

INSTALLATION OF CONTIGUOUS WALL PILES

Establishment

G	<p>Levelling of the piles site, transporting and establishing on the site and removing on completion all structural platforms and all special constructional plant and equipment for piling and for carrying out operations. Transport and establish on site the necessary plant for the execution of the work and removal thereof on completion</p> <p>This work will be paid for by way of an item, 75% of which become payable when all the equipment is on site and the first hole has been drilled. The remaining 25% will become payable after all the holes have been drilled and the equipment has been removed from site</p>	Item
H	Setting out of pile position	No 150
J	Setting up rig at pile position	No 150

Carried to Collection

Bill 2
Lateral Support

R

Contiguous flight auger drilling in earth below ground level

K	500mm Diameter pile 9,0m in length	No	33
L	600mm Diameter pile 7,5m in length	No	28
M	600mm Diameter pile 14,5m in length	No	9
N	700mm Diameter pile 13,5m in length	No	15
P	700mm Diameter pile 17,0m in length	No	65
Q	Extra over 500mm diameter pile for augering holes through unidentified obstructions	m3	6
R	Extra over 600mm diameter pile ditto	m3	9
S	Extra over 700mm diameter pile ditto	m3	26

Cube testing

T	Making and testing sets of three 150 x 150 x 150mm concrete strength test cubes	No	109
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Grout

U	35MPa grout for 500mm diameter CFA pile	m3	59
V	35MPa grout for 600mm diameter CFA pile	m3	94

GUARANTEE AND INSURANCE

W	35MPa grout for 700mm diameter CFA pile	m3	494
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Reinforcement

X	High tensile (Y) reinforcement in main bars to piles in all diameters	t	55.73
Y	Mild steel (R) in spirals to piles in all diameters	t	4.29

Carried to Collection

Bill 2
Lateral Support

R

	<u>Integrity testing of piles</u>				
Z	Transport and establish on site the necessary testing plant for the execution of the Sonic Integrity Testing and removal thereof on completion		Item		
AA	Pile Sonic Integrity Test	No	150		
	<u>CAPPING BEAM & WHALER BEAM</u>				
	<u>Establishment</u>				
AB	Transporting and establishing on the site and removing on completion all structural platforms and all special constructional plant and equipment for carrying out operations. Transport and establish on site the necessary plant for the execution of the work and removal thereof on completion				
	This work will be paid for by way of an item, 75% of which become payable when all the equipment is on site. The remaining 25% will become payable after the entire capping beam is complete and the equipment has been removed from site		Item		
	<u>Cutting off and removing excess length approximately 1m of concrete pile as necessary including stripping back for a height not exceeding 50mm to expose reinforcement, trimming to defined level and bending reinforcement as necessary for casting into capping beam</u>				
AC	500mm Diameter pile	No	33		
AD	600mm Diameter pile	No	37		
AE	700mm Diameter pile	No	80		
	<u>Capping beam</u>				
AF	Excavation for capping beam at CPW earth face such that no material is retained by the capping beam	m3	40		
AG	25Mpa concrete in capping beam	m3	80		
AH	Rough formwork to sides and soffit of capping beam	m2	308		
	Carried to Collection			R	
	Bill 2				
	Lateral Support				

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AJ	High tensile (Y) and mild steel (R) to capping beam in all diameters	t	9.16	
	<u>Whaler beam</u>			
AK	35Mpa concrete in whaler beam	m3	45	
AL	Rough formwork to sides and soffit of whaler beam	m2	150	
AM	High tensile (Y) and mild steel (R) to capping beam in all diameters	t	10.79	
AN	Provision of specialist formwork for whaler beam		Item	
	<u>MICROPILE ANCHORS</u>			
	<u>Establishment</u>			
AP	Transporting and establishing on the site and removing on completion all structural platforms and all special constructional plant and equipment for carrying out operations. Transport and establish on site the necessary plant for the execution of the work and removal thereof on completion			
	This work will be paid for by way of an item, 75% of which become payable when all the equipment is on site. The remaining 25% will become payable after the entire whaler beam is complete and the equipment has been removed from site		Item	
AQ	Setting out of anchor position	No	34	
AR	Setting up rig at anchor position	No	34	
	<u>Anchors</u>			
AS	DYWI R32-250 or equal and approved self-drilling hollow-anchor soil nail 15m long placed at 1,8m centres with galvanized bearing face plate, bevelled washer and nut as per specialist including drilling and placing cement grout as per Colto section 7500:7507: Cii re-injection tube, washer and nut epoxy coated on completion	No	30	
	Carried to Collection			R
	Bill 2			
	Lateral Support			

AT	DYWI R32-210 or equal and approved self-drilling hollow-anchor soil nail 12m long placed at 1,6m centres ditto	No	4	
	<u>Testing and re-tensioning of micro-pile anchors</u>			
AU	Transporting and re-establishment on site of necessary plant for testing, re-tensioning and de-stressing of ground anchors		Item	
AV	Anchor pull-out tests	No	34	
AW	Locking off of ground anchor	No	34	
	<u>SHOTCRETE</u>			
	<u>Establishment</u>			
AX	Transporting and establishing on the site and removing on completion all structural platforms and all special constructional plant and equipment for carrying out operations. Transport and establish on site the necessary plant for the execution of the work and removal thereof on completion			
	This work will be paid for by way of an item, 75% of which become payable when all the equipment is on site. The remaining 25% will become payable after the entire wall is complete and the equipment has been removed from site		Item	
AY	Prepare contiguous piled wall for flush-finish shotcrete application	m2	696	
	<u>35 MPa Gunite / Shotcrete with and including all necessary formwork</u>			
AZ	100mm Thick sprayed concrete with Xypex and Broom finish	m2	696	
BA	Galvanised mesh Ref 245	m2	696	
BB	Y10 SC34 bars drilled, dowelled and fixed with structural epoxy into either side of pile at 1,0m centres to which mesh is to be tied	kg	2 800	
	Carried to Collection			R
	Bill 2			
	Lateral Support			

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

[illegible]

<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 3</u></p> <p><u>PILING</u></p> <p><u>Note: For CPAP purposes workgroup 106 to apply</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Generally</p> <p>All piling shall comply with SABS 1200F</p> <p><u>Piling Methods</u></p> <p>The grout shall be pumped through the stem of the auger and the rate of auger withdrawal be controlled so that a continuous monolithic shaft of full design is formed.</p> <p>In filling the hole and socket with grout care must be taken to ensure that the column of the grout so formed is both uniform in cross-section and uncontaminated with regards to ground water and soil.</p> <p>The sequence of installation of the piles must be such that adjacent piles are not in any way affected as regards their strength.</p> <p>The cost of reporting or making good any damage to the supporting structures that occurs during the Defects Liability Period and is deemed by the Engineer to be a consequence of settlement of the piled foundations shall be recoverable from the Main Contractor.</p>			
Carried to Collection		R	
Bill 3			
Piling			

Pile Reinforcement

Reinforcement cover is not be less than 50mm. Spacer blocks shall be used to maintain the specific cover between the steel and the inside face of the wall of the pile hole.

All reinforcement shall be designed to permit its placing to the depth specified through the grout of the pile at the completion of coating.

The transverse reinforcement shall consist of helical bars.

Longitudinal reinforcement shall be provided in continuous lengths without joints.

Reinforcement shall be supported at such a level that it will provide the required protection above the cut-off level. The reinforcement should not project above the level of the working platform.

Grout

The cement used for grout manufacture must be fresh. Water used in the manufacture of the grout shall be free of sugars, algae, and have sulphates and chlorides less than 0.1 and 0.5% respectively. Water/cement ratio shall be between 0.50 and 0.60 to provide fluidity, strength and waterproofing to the reinforcement.

Where admixtures are used to improve strength and fluidity, calcium chloride must not be less than 600kg/m³, and compressive strength of the sand/cement grout not less than 30mPa at 28 days.

The slump of the grout mixes shall be such that the specified cube strength is achieved. The slump shall be 175mm or greater. Grout compressive strength tests must be carried out and one set three cubes must be made for every 10m³ of grout placed.

Carried to Collection

Bill 3
Piling

R

Testing

Integrity testing:

Frequency response integrity testing of an approved method is to be carried out on completed working piles as instructed by the Engineer.

The Integrity test shall measure the response of the piles at the pile head, after trimming of the pile and prior to casting the pile cap, to an acoustic excitation with a band width of at least 2000 Hertz.

The test result shall include a graphical or tabular representation of the acoustic response interpreted by a suitably experienced professional Engineer. The interpretation is to include professional Engineer's opinion of the physical integrity of the pile shaft.

Load testing:

The load test is to be completed within 28 days of installing the first pile.

The test procedure shall be the British procedure.

The working pile shall be tested to 1.5 times the design serviceability load.

The piles to be tested will be selected on site by the Engineer.

The test will require deflection measurement at two independent localities on the pile accurate to 0.1mm. The set up for the reading of these deflections is to be approved by the Engineer.

Acceptance Criteria for the load test

Maximum settlement at working after 24hrs of sustained load

Maximum settlement at 150% of working load after 24hrs of sustained load

Carried to Collection

Bill 3
Piling

R

Residual settlement after removal of sustained load (i) above

Residual settlement after of sustained load (ii) above

Pile Records

The following records shall be kept of every pile:

- (a) Pile number
- (b) Piling platform level relative to datum
- (c) Commencing surface level relative to datum
- (d) Details of steel reinforcement
- (e) Type of cement
- (f) Grade, quality and stump of grout placed
- (g) Length from commencing surface to toe
- (h) Length from commencing surface to cut-off level
- (i) Details of any obstructions encountered and time taken in overcoming them
- (j) Details of any interruption of the construction process

GEOTECHNICAL REPORT

Tenderers are referred to a report of a geotechnical investigation of the site, a copy of which is bound in this document

Carried to Collection

Bill 3
Piling

R

INDEMNITY

The Contractor shall take full responsibility for piling work and shall guarantee that piling work will support the calculated loads laid down by the Consulting Structural Engineer, hereinafter referred to as the Engineer. The actual lengths of the piles shall be determined on site by the Contractor. The designed length together with calculations shall be made available to the Engineer prior to the commencement of the contract. This does not in any way relieve the Contractor of his responsibility or obligation to provide the specified guarantee

The Contractor shall indemnify the Employer against any injury to or death of any person and all loss or damage to all structures resulting from the failure of any pile. In the event of the failure of any pile the Contractor shall make good such pile and all consequent damage at his own expense

The Contractor shall furnish in a policy approved by the Engineer that insures against risks arising out of the responsibilities, guarantee and indemnities specified. The Contractor shall pay all premiums in respect of this insurance policy. The guarantee shall be effective for a period of three (3) years from the date of completion of the Contract

SCOPE OF WORK

The Contractor shall be responsible for and include for the design and supervision of the pile and for the provision of a Certificate of Stability all to the approval and satisfaction of the Structural/Civil Engineer.

The design may be based on the appropriate geotechnical information and specified working loads herein. Geotechnical Information is attached.
(Documents prepared by Drennan Maud)

Note: Piles are to be installed subsequent to the site being excavated or filled to the correct levels

Carried to Collection

Bill 3
Piling

R

INDEMNITY

The Contractor shall take full responsibility for piling work and shall guarantee such piling work. The actual lengths of the piles shall be determined on site by the Contractor

The Contractor shall indemnify the Employer against any injury to or death of any person and all loss or damage to all structures resulting from the failure of any pile. In the event of the failure of any pile the Contractor shall make good such pile and all consequent damage at his own expense

The Contractor shall furnish in a policy approved by the Engineer that insures against risks arising out of the responsibilities, guarantee and indemnities specified. The Contractor shall pay all premiums in respect of this insurance policy. The guarantee shall be effective for a period of three (3) years from the date of completion of the Contract

GUARANTEE AND INSURANCE

- A Provision of the specified piling guarantee and insurance
- B Profit

Item

Item

Carried to Collection

R

Bill 3
Piling

<u>ESTABLISHMENT</u>					
C	<p>Levelling of the piles site, transport and establishing on the site and removing all structural platforms and all special constructional plant and equipment for foundations piling and for carrying out operations. Transport and establish on site the necessary plant for the execution of the work and removal thereof on completion</p> <p>This work will be paid for by way of an item, 75% of which become payable when all the equipment is on site and the first hole has been drilled. The remaining 25% will become payable after all the holes have been drilled and the equipment has been removed from site</p>			Item	
D	Setting out of pile positions			Item	
E	Move to and set up plant at pile position	No	262		
<u>OPEN CAST-AUGERED CONCRETE CAST IN SITU PILES</u>					
<u>Drilling</u>					
F	Drill 250mm Diameter open cast-augered piles to 5m depth	No	21		
<u>Grouting</u>					
G	25MPa grout for 450mm diameter CFA piles	m3	5		
<u>Reinforcement</u>					
H	High tensile (Y) reinforcement in main bars and spirals to piles in all diameter	t	0.40		
<u>CONTINUOUS FLIGHT AUGERED CONCRETE CAST IN SITU PILES</u>					
<u>Drilling</u>					
J	Drill 350mm Diameter continuous flight auger (CFA) piles to 10,1m depth	No	51		
Carried to Collection				R	
Bill 3 Piling					

K	Drill 350mm Diameter continuous flight auger (CFA) piles to 11,0m depth	No	32
L	Drill 450mm Diameter continuous flight auger (CFA) piles to 13,5m depth	No	158
M	Extra over 350mm diameter pile for augering holes through obstructions consisting of unidentified obstructions	m	17
N	Extra over 450mm diameter pile ditto	m	32
	<u>Grouting</u>		
P	25MPa grout for 450mm diameter CFA piles	m ³	341
Q	25MPa grout for 350mm diameter CFA piles	m ³	87
	<u>Cube testing</u>		
R	Making and testing sets of three 150 x 150 x 150mm concrete test cubes	No	71
	<u>Reinforcement</u>		
S	High tensile (Y) reinforcement in main bars and spirals to piles in all diameter	t	33.72
	<u>TESTING</u>		
	<u>Integrity testing</u>		
T	Transport and establish on site the necessary testing plant for the execution of the integrity testing work and removal thereof on completion		Item
U	Prepare head of pile for testing	No	262
V	Integrity testing in-situ concrete pile	No	262
	<u>STANDING TIME DUE TO SUSPENSION OF PILING FOR REASONS APPROVED BY THE ENGINEER (PROVISIONAL)</u>		
W	Plant standing time	Hrs	10
	Carried to Collection		
	Bill 3 Piling		

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

[illegible]

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

[illegible]

<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<p><u>SECTION 2</u></p> <p><u>BILL NO. 4</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>Note: For CPAP purposes workgroup 110 to apply unless otherwise stated</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)</p> <p><u>Formwork</u></p> <p>Formwork to sides of bases, pilecaps, 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</p>			
Carried to Collection		R	
Bill 4 Concrete, Formwork And Reinforcement			

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

Removal of formwork for normal conditions :

Beam sides, wall sides, unloaded columns	2 days
Beam with props left under	7 days
Slab with props left under	4 days
Slab props	10 days
Beam props	14 days

Removal of formwork for cold conditions :

Beam sides, wall sides, unloaded columns	4 days
Beam with props left under	12 days
Slab with props left under	7 days
Slab props	12 days
Beam props	28 days

Carried to Collection

Bill 4

Concrete, Formwork And Reinforcement

R

Slabs should be propped in the following way, before a new slab is cast :

GF pour	staging in basement	100%
FF pour	staging on GF	100%
	staging in basement	75%
Roof pour	staging on FF	100%
	staging on GF	75%
	staging in basement	50%

Off-shutter finish to concrete work as E22 of the specification :

Special Off-form steel shutter

Refer SANS 2001 CC1.CC1.CI4.1.3.8 and Table 1

Degree of accuracy I as per Table 11

Surface finish that is such that no after-treatment other than the treatment of bolt-holes (which shall be placed with regularity and precision) is required

The form used is unblemished and the panels regular

Joints are a feature of the pattern and are handled with care

The finished concrete is accurate to degree of accuracy I

UNREINFORCED CONCRETE

25MPa/19mm Concrete

A	Blinding	m3	18
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REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

25MPa/19mm Concrete

B	Surface beds	m3	97
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C	Surface beds	m3	10
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D	Ramped surface beds	m3	12
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E	Thickening or surface bed edge chamfered 25mm	m3	19
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Carried to Collection

Bill 4

Concrete, Formwork And Reinforcement

R

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

F	Surface beds in raft foundation	m3	16
G	Ground beams	m3	23
H	Strip footings	m3	68
<u>REINFORCED CONCRETE</u>			
<u>30MPa/19mm Concrete</u>			
J	Pile caps	m3	112
K	Slabs, beams and inverted beams	m3	722
L	Upstand beams	m3	42
M	Isolated beams	m3	26
N	Coffered slabs including beams and inverted beams	m3	1 496
P	Retaining walls	m3	67
Q	250 x 350mm Nib beam on coffered slab	m3	7
R	150 x 150mm Nib beam on coffered slab	m3	1
S	250 x 350mm Nib on upstand beam	m3	7
T	30MPa Base for retaining walls	m3	31
U	Blade wall	m3	60
V	Balustrade wall	m3	6
W	Stairs, waist and landings	m3	75
X	Gutter including upstand beams	m3	24
Y	Fire escape wall	m3	9
Z	Lift shaft walls	m3	37
AA	Lift shaft roof	m3	5
Carried to Collection			
Bill 4			
Concrete, Formwork And Reinforcement			

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AB	Fire escape roof	m3	6		
AC	Rectangular columns	m3	60		
AD	Rectangular columns with rounded ends	m3	18		
AE	Round columns	m3	0.4		
AF	Plinths	m3	20		
	<u>Cutting off and removing excess length approximately 1m of concrete pile as necessary including stripping back for a height not exceeding 50mm to expose reinforcement, trimming to defined level and bending reinforcement as necessary for casting into pile cap</u>				
AG	250mm Diameter pile	No	21		
AH	450mm Diameter pile	No	158		
AJ	350mm Diameter pile	No	83		
	<u>CONCRETE SUNDRIES</u>				
	<u>Cast in light boxes</u>				
AK	Cast 90mm deep lightbox into and flush with soffit of slab size approximately 1100 x 500mm	No	98		
AL	Cast 90mm deep downlighter into and flush with soffit of slab size approximately 50mm diameter (TB)	No	50		
	<u>Cube testing</u>				
AM	Making and testing sets of three 150 x 150 x 150mm concrete test cubes	No	62		
	<u>Non-shrink grout</u>				
AN	Bedding minimum 25mm thick under base plates on top of concrete beam, column, base or slab, including working around holding down bolts and chamfered edges all round	m2	1		

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AP	Fill 75mm diameter x 150mm deep pocket after installation of holding down bolts with grout	No	28		
	<u>Penetron or equal and approved waterproofing compound added to concrete</u>				
AQ	Extra over 30MPa concrete for waterproofing compound added in roof slabs	m3	350		
	<u>Finishing top surfaces of concrete smooth with a wood float</u>				
AR	Surface beds, slabs, etc	m2	37		
AS	Surface beds, slabs, etc to falls	m2	47		
	<u>Finishing top surfaces of concrete smooth with a steel trowel finish</u>				
AT	Surface beds, slabs, etc to falls	m2	7		
	<u>Finishing top surfaces of concrete smooth with power float</u>				
AU	Surface beds, slabs, etc to falls	m2	6 484		
	<u>MOVEMENT JOINTS, ETC</u>				
	<u>Expansion joints with 12mm thick soft board gap joint between vertical concrete surfaces</u>				
AV	LI Joints not exceeding 300mm wide	m	44		
	<u>Isolation joints with 10mm thick polystyrene joint filler between vertical concrete surfaces</u>				
AW	LI Joints not exceeding 300mm high	m	420		
	<u>6mm Wide saw cut joint cut within 24 hours after the placing of concrete</u>				
AX	LI Joints 30mm deep in surface beds	m	218		
AY	LI Joints 60mm deep in surface beds	m	21		
Carried to Collection				R	
Bill 4 Concrete, Formwork And Reinforcement					

FORMWORK

Note: For CPAP purposes workgroup 111 to apply

ROUGH FORMWORK (DEGREE OF ACCURACY II)

Formwork to sides

AZ	Pilecaps	m2	246
BA	Ground beams	m2	92

Formwork to sides and soffits

BB	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	329
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Soffits

BC	Lift shaft slab propped up exceeding 11,0m and not exceeding 12,5m high	m2	23
BD	Slabs propped up exceeding not exceeding 1,5m high	m2	7

SMOOTH FORMWORK (DEGREE OF ACCURACY I)

Formwork to sides

BE	Rectangular column	m2	281
BF	Rectangular column approximately 10,800m high	m2	338
BG	Rectangular column approximately 10,500m high	m2	32
BH	Rectangular column approximately 9,10m high	m2	41
BJ	Rectangular column approximately 7,70m high	m2	35
BK	Rectangular column approximately 12,95m high	m2	19
BL	600 x 250 x 3250mm High column with both ends rounded at 125mm radius	No	33
BM	600 x 250 x 4100mm High column with both ends rounded at 125mm radius	No	3

Carried to Collection

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Concrete, Formwork And Reinforcement

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

BN	400mm Diameter column 3250mm high	No	1
BP	Walls	m2	196
BQ	Walls 10,50m high	m2	69
BR	Walls 11,20m high	m2	343
BS	Inner face of shaft walls approximately 12,5m high	m2	147
BT	Retaining walls	m2	266
BU	Upstand beams	m2	336
BV	Step in slabs	m2	14
BW	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	752
BX	Edges, risers, ends and reveals not exceeding 300mm high or wide circular-on-plan	m	28
BY	Riser edge of stairs	m	322
BZ	Sloping and stepped outer edge of stairs not exceeding 300mm high extreme	m	132
	<u>Formwork to sides and soffits</u>		
CA	Sides and soffits of gutter	m2	152
CB	Sides and soffits of isolated beams propped up exceeding 3,5m and not exceeding 5,0m high	m2	118
CC	Sides and soffits of beams propped up exceeding 5,0m and not exceeding 6,5m high	m2	124
	<u>Formwork to soffits</u>		
CD	Soffit of slabs	m2	2 797
CE	Sloping soffit of stairs	m2	89
	Carried to Collection		
	Bill 4 Concrete, Formwork And Reinforcement		

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

CF	Soffit of landings	m2	93
	<u>Formwork to Coffered Slabs</u>		
CG	Soffits of coffered slabs with 128mm wide ribs at 900mm centres in one direction and 52mm wide ribs at 825mm centres in other direction propped up exceeding 1,5m and not exceeding 3,5m high	m2	2 197
CH	Soffits of adjacent flush surfaces of coffered slabs exceeding 500mm and not exceeding 750mm thick propped up exceeding 1,5m and not exceeding 3,5m high	m2	1 030
CJ	Top and tapered sides of coffer 562 x 562mm at top, 900 x 825mm at bottom and 525mm high with all corners rounded	No	2 177
CK	Top and tapered sides of coffer 602 x 602mm at top, 900 x 825mm at bottom and 425mm high with all corners rounded	No	350
CL	Sides of coffered slab	m2	215
	<u>Boxing in smooth formwork to form</u>		
CM	200 x 200mm Vertical groove in side of column	m	39
CN	Drip groove in soffit of beam	m	114
	<u>Boxing out smooth formwork to form</u>		
CP	250 x 350mm Nib on edge of coffered slab	m	85
CQ	150 x 150mm Nib on edge of coffered slab	m	33
CR	250 x 350mm Nib on edge of upstand beam	m	83
	<u>Formwork to form openings</u>		
CS	Opening exceeding 2m not exceeding 3m girth through 125mm thick slab portion over coffer	No	16
CT	Opening not exceeding 1m girth through 255mm slab	No	10
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Bill 4
Concrete, Formwork And Reinforcement

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

CU	Opening exceeding 1m not exceeding 2m girth through 255mm slab	No	446		
CV	Opening exceeding 2m not exceeding 3m girth through 255mm slab	No	24		
CW	Opening exceeding 3m not exceeding 4m girth through 255mm slab	No	3		
CX	Opening exceeding 1m not exceeding 2m girth through 650mm slab	No	2		
CY	Opening exceeding 2m not exceeding 3m girth through 650mm slab	No	13		
CZ	Opening exceeding 3m not exceeding 4m girth through 650mm slab	No	3		
DA	Opening exceeding 5m not exceeding 6m girth through 650mm slab	No	11		
DB	Opening exceeding 6m not exceeding 7m girth through 650mm slab	No	1		
<u>REINFORCEMENT</u>					
<u>Note: For CPAP purposes workgroup 114 to apply</u>					
<u>Mild and high tensile steel reinforcement</u>					
DC	Bars in all diameters	t	379.02		
<u>Fabric reinforcement</u>					
DD	Mesh Ref 193	m2	891		
DE	Mesh Ref 311	m2	50		
				R	
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Bill 4 Concrete, Formwork And Reinforcement					

PRECAST CONCRETE COPINGS ETC

Note: For CPAP purposes workgroup 112 to apply

Precast concrete cills

DF	295 x 85mm high precast concrete cills with and including drip moulds
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Bill 4

Concrete, Formwork And Reinforcement

Section 2

Bill 4

Concrete, Formwork And Reinforcement

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<u>Pointing</u>					
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc					
<u>BRICKWORK IN SUBSTRUCTURE</u>					
<u>Brickwork of FBS CLAY bricks (14 MPa nominal compressive strength) in class I mortar</u>					
A	LI 230mm brick walls in foundations	m2	370		
B	LI 330mm brick retaining wall built in English bond	m2	94		
<u>BRICKWORK IN SUPERSTRUCTURE</u>					
<u>Brickwork of FBS CLAY bricks (14 MPa nominal compressive strength) in class I mortar</u>					
C	LI 110mm brick walls	m2	390		
D	LI 110mm Brick wall in lining to concrete	m2	42		
E	LI 230mm brick walls	m2	2 809		
F	LI 280mm brick walls	m2	247		
G	LI 480mm brick walls	m2	37		
<u>Loadbearing brickwork of FBS CLAY bricks (14 MPa nominal compressive strength) in class I mortar</u>					
H	LI 110mm brick walls	m2	1 926		
J	LI 110mm Brick wall in lining to concrete	m2	27		
K	LI 230mm brick walls	m2	1 663		
L	LI 280mm brick walls	m2	1 211		
M	LI 480mm brick walls	m2	18		
<u>Bagging of 1:3 cement and sand mixture</u>					
N	LI On brick walls, piers, etc.	m2	4 824		
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Bill 5 Masonry					

<u>Brickwork reinforcement</u>					
P	LI 75mm Wide reinforcement built in horizontally	m	12 478		
Q	LI 150mm Wide reinforcement built in horizontally	m	31 098		
<u>Prestressed fabricated lintels</u>					
R	110 x 75mm Lintels in lengths not exceeding 3m	m	920		
<u>Turning pieces</u>					
S	220mm Wide turning piece to lintels, etc	m	157		
<u>Galvanised hoop iron cramps, ties, etc</u>					
T	LI 32 x 1,6mm Thick galvanised non-perforated hoop iron strap 400mm long with one end shot fixed to concrete column using two Hilti nails and the other end built into brickwork	No	100		
<u>Articulation joints of 10mm compressible foam filler and elastomeric sealant</u>					
U	LI Vertical joint in 220mm wall at columns	m	40		
V	LI 220mm Wide vertically between new brickwork surfaces	m	80		
W	LI 220mm Wide horizontally between concrete and brickwork surfaces	m	250		
<u>Articulation joints of 10mm softboard and 15mm ABE Duracord and sealed with ABE Durakol G LM joint sealant or equal and approved</u>					
X	LI 110mm Horizontal joint between brickwork and concrete	m	80		
<u>Slip joint of 2 layers of 5mm tempered hardboard, smooth sides together and greased</u>					
Y	LI 220mm Wide horizontally between brickwork and concrete	m	1 136		
<u>FACE BRICKWORK</u>					
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Bill 5 Masonry					

**'Corobrik Roan Satin and or equal approved FBX
clay bricks pointed with ruled recessed horizontal
and vertical joints**

Z	LI Extra over brickwork for face brickwork	m2	3 038
AA	LI Extra over brickwork for face brickwork in flemish bond	m2	277
AB	LI Extra over brickwork for patterned face brickwork with stretcher bond and flemish bond on alternating courses and some header brick protruding (all as per drawing 1518-501-03)	m2	132
AC	LI Ditto on curve	m2	59
AD	LI 110mm Face brickwork in lining to concrete pointed one side	m2	255
<u>'Corobrik Roan Satin and or equal approved FBX solid clay bricks pointed with ruled recessed horizontal and vertical joints</u>			
AE	LI 230mm Face brick brise soleil wall	m2	20
AF	LI 230mm Face brickwork pointed both sides	m2	46
<u>Brick-on-edge header course copings, sills, etc with recessed joints on all exposed faces</u>			
AG	LI 220mm Wide lintel pointed on face and 110mm soffit	m	127
AH	LI 220mm Wide sills set sloping and slightly projecting	m	57
AJ	LI Brick on edge coping	m	74

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Masonry

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Masonry

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Masonry

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<u>SECTION 2</u>				
<u>BILL NO. 6</u>				
<u>WATERPROOFING</u>				
<u>Note: For CPAP purposes workgroup 120 to apply</u>				
<u>PREAMBLES</u>				
For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009				
NOTE: All waterproofing to be in accordance with SABS 021 as applicable and waterproof pits, basements floors and roof to carry a ten (10) year written guarantee on site workmanship and water tightness.				
<u>SUPPLEMENTARY PREAMBLES</u>				
<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				
<u>DAMPPROOFING OF WALLS AND FLOORS</u>				
<u>One layer of 375 micron embossed damp proof course</u>				
A	LI In walls	m2	365	
B	LI In cills	m2	35	
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Bill 6 Waterproofing				

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P	Flashing strip 150mm girth at turn-down including sealing top edge into groove with mastic	m	27	
Q	Additional membrane at 100mm diameter outlet	No	4	
R	Collar around pipe not exceeding 100mm internal diameter	No	2	
	<u>Roofcote or equal and approved aluminium paint</u>			
S	LI On roof slabs	m2	46	
	<u>WATERPROOFING TO CONCRETE OR MASONRY RETAINING WALLS</u>			
	<u>Derbigum CG4 on one layer of Derbigum CG3 waterproofing membrane and or equal approved, with 100mm side laps and 150mm end laps, sealed to primed surface by "torch-fusion", to receive dimpled drain (elsewhere measured). Waterproofing to be installed by an approved Derbigum contractor</u>			
T	Vertically on concrete walls	m2	266	
U	Ditto on masonry walls	m2	154	
	<u>Sundries</u>			
V	Delta MS8 or equal and approved dimpled drainage layer vertically behind retaining wall	m2	360	
W	One layer 12mm polystyrene vertically	m2	360	
X	One layer orange damp proof membrane vertically with all joints taped	m2	360	
	<u>SEALING STRIPS, JOINT SEALANTS, ETC</u>			
	<u>Two-part grey polysulphide sealing compound including 15mm bond breaking cord, primer, etc</u>			
Y	LI 12 x 5mm In vertical expansion joints in concrete	m	84	
Z	LI 5 x 35mm In isolation joint in slabs	m	420	
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	Waterproofing			

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Waterproofing

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Waterproofing

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Item			Quantity	Rate	Amount
<u>SECTION 2</u>					
<u>BILL NO. 7</u>					
<u>ROOF COVERINGS, ETC</u>					
<u>Note: For CPAP purposes workgroup 125 to apply</u>					
<u>PREAMBLES</u>					
For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009					
<u>PROFIED METAL SHEETING AND ACCESSORIES</u>					
<u>SAFLOCK 700 (or equal and approved) 0.8mm G4 Colortech aluminium profiled colourplus coated roof sheeting with colour coated finish to one side with a cool grey backing coat fixed to steel purlins strictly in accordance with manufacturer's specifications by an approved contractor</u>					
A	Roof sheeting with a 3 degrees pitch	m2	3 156		
<u>0.9mm G4 Colortec coated aluminium sheeting with colour coated finish to one side with a cool grey backing coat (or equal and approved)</u>					
B	Head wall flashing 462mm girth once bent fixed with and including sliding brackets in conjunction with flute closure and poly closure (elsewhere measured)	m	167		
C	Ridge flashing 600mm girth ditto	m	16		
D	Apex flashing 660mm girth ditto	m	86		
E	Barge flashing 660mm girth twice bent fixed with and including sliding brackets	m	168		
F	Side wall flashing 462mm girth twice bent fixed with and including sliding brackets	m	100		
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Bill 7 Roof Coverings, Etc					

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Roof Coverings, Etc

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<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<p><u>SECTION 2</u></p> <p><u>BILL NO. 8</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>Note: For CPAP purposes workgroup 126 to apply</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts</p> <p><u>Doors</u></p> <p>All timber doors to be solid core with no air gaps</p>			
<p>Carried to Collection</p> <p>Bill 8 Carpentry And Joinery</p>		R	

DOORS, ETC

44mm Solid core wood door with concealed hardwood edges and commercial veneer suitable for painting

A	Single door size 600 x 2032mm high	No	8
B	Single door size 900 x 2032mm high	No	78
C	Double door size 1800 x 2032mm high	No	7
D	One and a half door size 1350 x 2032mm high	No	5
E	Single door size 1000 x 2032mm high	No	34
F	Ditto including 450mm x 250mm observation viewing panel glazed with armour plate glass	No	46

44mm Solid core wood door with stainless steel meeting tiles and concealed hardwood edges with commercial veneer suitable for painting

G	Double door size 950 x 2032mm high	No	21
H	Double door size 1500 x 2032mm high	No	6

44mm Solid wood door with and including stainless steel meeting stile and commercial veneer suitable for painting

J	Double door size 1800 x 2032mm high with and including 2no 450mm x 250mm observation viewing panel glazed with armour plate glass	No	1
K	One and a half door size 1350 x 2032mm high with and including 1no 450mm x 250mm observation viewing panel glazed with armour plate glass	No	12

Carried to Collection

Bill 8
Carpentry And Joinery

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L	<u>44mm Solid core Anti-Bandit security doors with commercial veneer suitable for painting complete with and including all fittings, ironmongery as a complete unit and cladded with and including 450mm x 250mm observation viewing panel glazed with armour plate glass</u>				
	Single door size 1200 x 2032mm high	No	2		
M	<u>44mm Solid core wood flush panel door with concealed edges and commercial veneer suitable for painting</u>				
	Single door size 836 x 1932mm high	No	20		
N	<u>48mm Class B fire door with concealed hardwood edges and commercial veneer suitable for painting complete with and including hinges and 1.6mm thick stainless steel single rebated splayed door frame to suit a 280mm wall</u>				
	Single door size 900 x 2032mm high	No	7		
P	<u>48mm Class B fire door, concealed hardwood edges and commercial veneer suitable for painting complete with and including hinges and 1.6mm thick stainless steel single rebated splayed door frame to suit a 230mm wall</u>				
	Single door size 1000 x 2032mm high	No	17		
Q	<u>44mm Class B fire door, concealed hardwood edges and commercial veneer suitable for painting complete with and including hinges and 1.6mm thick stainless steel single rebated splayed door frame to suit a 230mm wall</u>				
	One and a half door size 1350 x 2032mm high	No	2		
Carried to Collection					R
Bill 8 Carpentry And Joinery					

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JOINERY FITTINGS

GENERAL NOTES FOR TIMBER USED IN JOINERY

Timber

- Hardwood for joinery must be clear grade furniture timber to comply with SABS 1099.
- Softwood for joinery must be clear grade sawn softwood industrial timber to comply with SABS 1783.
- Dimensions as specified are the exact finished sizes.

Plywood and composite board

- Plyboard and composite board must comply with SABS 929. The exposure class, type, material, specie, number of plies or laminae and grade must be as specified.

·Laminated timber

- Laminated timber for joinery must be non-structural to comply with SABS 1460. The exposure class, type, appearance and finish, material, specie and adhesive type must be as specified.

·Fibreboard

- Woodfibre insulation board, fibreboard and hardboard must comply with SABS 540 and be of density and thickness, and whether coated or uncoated, as specified.

·Particle board

- Particle board for exterior and flooring use must comply with SABS 1300 and be of thickness and exposure class as specified.
- Particle board for interior use must comply with SABS 1301 and be of thickness and exposure class as specified.

Carried to Collection

Bill 8
Carpentry And Joinery

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GENERAL JOINERY NOTES

- Preparation
- Shop drawings must be provided for all joinery work.
 discuss all aspects with the architect / principal agent before any work is put in hand.
 - Provide a sample of every typical finished surface showing its final appearance and smoothness, including edge strips, stopping and dowelling, as specified. These samples must be kept on site for reference.
 - Provide the architect/principal agent with the opportunity to inspect the joinery before any priming or decoration is done.
 - Do not start any joinery before sizes have been checked on site.

Bill 8
Carpentry And Joinery

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Joinery

- Produce joinery in humidity conditions which resemble those of the building site, in workshops equipped with modern machinery manned by skilled joiners.
- Use joints that are not wholly dependent on adhesive and that conceal the end grain of natural wood or the edge of laminated or particle board.
- Round all angles and edges slightly. Pencil round all vulnerable or exposed angles and edges.
- Punch all exposed nail heads and fill with stopping that will match the wood after clear finish has been applied.
- Countersink all exposed screw heads to 6 mm below the surface and glue in matching dowels.
- Countersink all other screws to 2 mm below surface and fill with stopping.
- The grain of all fitted visible clear-finished timber, or the pattern of laminates when relevant, must run vertically on vertical surfaces and parallel to walls on horizontal surfaces, wherever practicable, unless specified otherwise. Veneer on any one fitting must match in grain and colour.
- Knot and prime joinery one coat of primer, or brush apply one coat clear finish as specified under PAINTING, before delivery to site, as specified.
- Timber door and window frames, sidelights, fanlights
- Frames, subframes and glazing beads for door and window frames must be of profile, size and timber specie as specified.
- Join frames with mortise and tenon joints.
- Frames must be shaped out of solid wood. Do not lay on door or casement stops.
- Top rails of frames must be provided with bevelled haunches for building in.
- Glazing beads must be tacked lightly in place.
- Galvanised steel lugs for building in must be screwed to the outside of frames.
- Bottom ends of door frame stiles must be provided with one 10 mm diameter steel dowel for building into thresholds.
- Head and bottom rails of windows and sidelights must be provided with a drip.
- Paint backs of sub frames one coat wood primer before building in.

Carried to Collection

Bill 8
Carpentry And Joinery

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Hardwood tops

·Solid hardwood tops must be glued together in wide boards with tongued and grooved joints stopping 25 mm from visible ends. Boards must be in single lengths or, if this is not possible, with staggered end joints.

·Tops must be screwed to framework with rebated hardwood clamps or metal cleats at 300 mm centres, screwed from underneath.

·Hardboard backs

·Fittings must be provided with hardwood backs when, and of thickness as specified. Bevel hardboard backs all round.

Drawers

·Drawers must be made with a 19 mm hardwood front, 12 mm softwood sides and back and 6 mm tempered hardboard bottom, all rebated, grooved, dovetailed and glued together. Sides must be fitted with two 19 x 19 mm hardwood runners, screwed on with brass countersunk screws, to take hardwood guide similarly screwed to fitting side. Runners and guides must be waxed with candle wax. Commercial runners are acceptable.

Shelf bands

·Screw and plug metal shelf bands to walls. Bolt the top hole of each band with a 6 mm diameter expansion bolt or frame fixing anchor. Start first band 100 mm away from corners of rooms or from other shelves which are at right angles.

Fixing to walls

·Fix joinery to masonry or concrete with appropriate plugs and screws, expanding bolts or frame fixing anchors. Do not use shot nails.

·Provide the necessary blocking pieces and sub frames to take up inaccuracies of wall and floor faces.

Carried to Collection

Bill 8
Carpentry And Joinery

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DECORATIVE LAMINATES

Material

- Decorative laminates must comply with SABS 1405.
- Plywood and composite board must comply with SABS 929
- Fibreboard must comply with SABS 540
- Particleboard must comply with SABS 1300

Construction

Decorative laminate construction must be as follows, or as specified:

High-wear worktops, doors, drawers and vertical surfaces must have:

- a substrate of high density particleboard or medium density fibreboard for dry areas, or a water resistant grade particleboard grade 1 for wet areas, and to thicknesses as specified.
- a laminate of 1,2mm high-pressure general purpose quality, and/or 0,8 mm high-pressure postforming quality decorative laminate to colour and finish as specified. The reverse face of the substrate must be 0,8mm backer quality laminate
- approved synthetic resin type adhesive for dry areas, or an approved water resistant type adhesive for wet areas
- post-formed edges, splashbacks and downstands to profile as specified, post-formed under factory conditions with no joints, and fabricated from the same substrate material.

Low wear horizontal surfaces, door and drawer fronts, and vertical surfaces and shelving must have:

- a substrate of high density particleboard class 3 or medium density fibreboard, and to thickness as specified.
- a laminate of 0,55mm high-pressure light duty quality decorative laminate to colour and finish as specified.
- self-edged exposed edges with 0,35mm matching laminate.

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**GENERAL NOTES FOR WOOD KITCHEN
CUPBOARDS**

Cupboards

- Wood kitchen cupboards must comply with SABS 1385, with type of stainless steel for sinks and/or drain-boards, material of worktops, edging of worktops, locks, finish and colour as specified.
- Supply a sample of a cupboard unit with door, drawer, handles and lock for approval, as specified.
- The supplier is responsible for checking the sizes on site and for providing detail layout drawings for approval before any work is started.

Fixing

- Securely fix cupboards in position according to the manufacturer's instructions.
- Seal all joints between work tops and walls with an approved fungus-resistant sealant.

Adjusting

- Inspect all cupboard components after fixing and leave everything in perfect working order.
- Protect cupboards from damage.

CUPBOARDS, COUNTERS, SHELVING, ETC

General

All work according to Departmental Specification PW371

The following cupboard fittings, etc have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, glueing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic finish, glass, ironmongery, metalwork, paint or varnish finishes, etc

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Cupboards, counters, etc all in accordance with the separate "Drawings" document issued with these Bills of Quantities. Drawing No.'s are indicated in brackets at the end of the descriptions. Sizes given in descriptions are approximate and should be taken from the detail drawings referred to above in conjunction with fitting fabrication and material finishes notes drawing No's 1518-600-01 to 03

All steel to be galvanised

All steelwork to be hot dipped galvanised all in accordance with SABS Specification 763

See PW371 Section 13 Clause 13.1 to 13.3

Cupboards consisting of 16mm PG Bison, BisonLam or equal and approved super white on BisonBord MR moisture resistant core carcass with 15mm high WISA Multiwall coated plywood with exposed edges finished melamine edging, factory applied with Jowat PUR hot melt glue with and including 30mm granite work top.

W	Type E floor cupboard overall size 2200mm long x 600mm wide x 900mm high with four doors, two shelves and four drawers, counter cut out for double sink in F35 (Drawing 1518-605-01&02)	No	1
X	Type E floor cupboard overall size 1848mm long x 636mm wide x 900mm high with three doors, two shelves and four drawers, counter cut out for single sink in F36, 88, 107, 139 (Drawing 1518-605-03)	No	4
Y	Type E corner floor cupboard with open counter on 50 x 50 x 3mm GMS brackets and serving hatch, overall size 5880mm long x 600mm wide on shorter side & 535 on longer side x 900mm high with two doors and two shelves, counter cut out for single sink in F63 and 66 (Drawing 1518-605-04, 05 & 06)	No	2

Carried to Collection

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Carpentry And Joinery

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

Z	Type E corner floor cupboard with open counter on 50 x 50 x 3mm GMS brackets and serving hatch, over all size 5880mm long x 600mm wide on shorter side & 791mm wide on longer side x 900mm high with two doors and two shelves, counter cut out for single sink in F51 and 55 (Drawing 1518-605-07, 08 & 09)	No	2		
AA	Type E floor cupboard with open counter on 50 x 50 x 3mm GMS brackets, over all size 2670mm long x 535mm wide x 900mm high with three doors and two shelves, counter cut out for single sink in F08 (Drawing 1518-605-10, 11 & 12)	No	1		
AB	Type E floor cupboard with open counter on 50 x 50 x 3mm GMS brackets, over all size 3200mm long x 535mm wide x 900mm high with three doors and two shelves, counter cut out for double sink in F202 (Drawing 1518-605-13 & 14)	No	1		
AC	Type E floor cupboard with open counter on 50 x 50 x 3mm GMS brackets, over all size 4500mm long x 535mm wide x 900mm high with two doors and two shelves, counter cut out for single sink in F217 (Drawing 1518-605-15 & 16)	No	1		
AD	Type E4 floor cupboard with overall size 1200mm long x 300mm wide x 625mm high with four doors and two shelves in F166, 167 & 168 (Drawing 1518-605-20)	No	3		
AE	Type E1 floor cupboard with overall size 900mm long x 535mm wide x 900mm high with two doors and two shelves in F73, 74, 87, 88, 93, 94, 98 & 97 (Drawing 1518-605-21)	No	8		
	<u>Cupboards consisting of 16mm PG Bison, BisonLam or equal and approved super white on BisonBord MR moisture resistant core carcass with 15mm high WISA Multiwall coated plywood with exposed edges finished melamine edging, factory applied with Jowat PUR hot melt glue</u>				
AF	Type F Ward built-in cupboard, over all size 800mm long x 600mm wide x 2040mm high with two doors and seven shelves (Drawing 1518-605-17 & 18)	No	18		
Carried to Collection					R
Bill 8 Carpentry And Joinery					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AG	Type F Ward built-in cupboard, over all size 1200mm long x 600mm wide x 2040mm high with three doors and seven shelves (Drawing 1518-605-19)	No	2	
AH	Type C Worktop unit size overall 4250mm long x 600mm deep x 900mm high with two shelves under and floor base (Drawing 1518-603-13)	No	2	
AJ	Type C Wall cupboard 4200mm long x 300mm deep x 300mm high consisting of four cabinets type E5 and one cabinet type E6, all with doors (Drawing 1518-603-13)	No	2	
	<u>Cupboards consisting of 16mm PG Bison, BisonLam or equal and approved super white on BisonBord MR moisture resistant core carcass with 15mm high WISA Multiwall coated plywood with exposed edges finished melamine edging, factory applied with Jowat PUR hot melt glue with and including 32mm formica work top.</u>			
AK	Type D floor cabinet with open counter overall size 3710mm long x 800mm wide x 740mm high with 2 no three drawer cabinet with and including nine pigeon holes above overall size 3740mm long x 400mm wide x 460mm high in F214 (Drawing 1518-604-02)	No	1	
AL	Type D U-shaped floor cabinet with open counter overall size 4000mm long x 680mm wide x 740mm high with 2no three drawer cabinet with and including eight pigeon holes above overall size 590mm long x 600mm wide x 1227mm high and top counter above size 2820mm long x 300mm wide in F76 (Drawing 1518-604-04)	No	1	
AM	Ditto in F101 (Drawing 1518-604-09)	No	1	
AN	Type D U-shaped floor cabinet with open counter overall size 3300mm long x 600mm wide x 740mm high with 2no three drawer cabinets with and including eight pigeon holes above overall size 590mm long x 600mm wide x 1227mm high and top counter above size 2120mm long x 300mm wide in F81 (Drawing 1518-604-05)	No	1	
AP	Ditto in F106 (Drawing 1518-604-10)	No	1	
	Carried to Collection			R
	Bill 8 Carpentry And Joinery			

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AQ	Type D L-shaped floor cabinet with open counter overall size 6100mm long x 600mm wide x 740mm high with 2no three drawer cabinet with and including eight pigeon holes above overall size 590mm long x 600mm wide x 1227mm high and top counter above size 6100mm long x 300mm wide in F71 (Drawing 1518-604-03)	No	1		
AR	Ditto in F86 (Drawing 1518-604-06)	No	1		
AS	Ditto in F91 (Drawing 1518-604-07)	No	1		
AT	Ditto in F96 (Drawing 1518-604-08)	No	1		
	<u>Counter consisting of 12mm thick engineered quartz work top on Bisonboard backing board with and including 50 x 50 x 3mm galvanised mild steel angle brackets fixed to brick wall at 600mm centres with 8mm anchor bolts and fixed glazed screen and 16mm max on top compact laminate partition panels</u>				
AU	Counter 1230mm wide x 4530mm long including ten support brackets, fixed glazed screen 1375mm high and two partition panels at Admission F38 (Drawing 1518-601-01)	No	1		
AV	Counter 1230mm wide x 2640mm long including eight support brackets and glazed screen 1375mm high and one partition panel at Dispensary F21 (Drawing 1518-602-01)	No	1		
	<u>Counter consisting of 32mm PG Bison or equal and approved Formica LifeSeal worktop composed of Formica high pressure laminate rated horizontal grade post forming bonded to a BisonBoard particleboard substrate with a melamine backer</u>				
AW	Type C Worktop overall size 2290mm long x 600mm wide with and including 1no three drawer cabinet size 550mm long x 400mm wide x 750mm high in F01 (Drawing 1518-603-01)	No	1		
AX	Type C Worktop overall size 4200mm long x 600mm wide with and including 2no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F11 (Drawing 1518-603-02)	No	1		
Carried to Collection					R
Bill 8 Carpentry And Joinery					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AY	Type C Worktop overall size 10200mm long x 600mm wide with and including 5no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F12 (Drawing 1518-603-03)	No	1		
AZ	Type C Worktop overall size 4600mm long x 600mm wide with and including 2no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F13 (Drawing 1518-603-04)	No	1		
BA	Type C Corner worktop overall size 3820mm long x 600mm wide with and including 2no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F45 (Drawing 1518-603-05)	No	1		
BB	Type C L-shaped worktop overall size 10190mm long x 600mm wide with and including 4no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F205 & 206 (Drawing 1518-603-06)	No	2		
BC	Type C L-shaped worktop overall size 14510mm long x 600mm wide with and including 6no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F207 (Drawing 1518-603-07)	No	1		
BD	Type C Worktop overall size 4000mm long x 600mm wide with and including 2no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F208 & 210 (Drawing 1518-603-08)	No	2		
BE	Type C L-shaped worktop overall size 15115mm long x 600mm wide with and including 6no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F209 (Drawing 1518-603-09)	No	1		
BF	Type C Worktop overall size 2200mm long x 600mm wide with and including 1 no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F211 (Drawing 1518-603-10)	No	1		
BG	Type C L-shaped worktop overall size 16235mm long x 600mm wide with and including 6no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F212 (Drawing 1518-603-11)	No	1		
Carried to Collection					R
Bill 8 Carpentry And Joinery					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

BH	Type C U-shaped worktop overall size 13335mm long x 600mm wide with and including 4no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F213 (Drawing 1518-603-12)	No	1		
BJ	Type C Worktop overall size 2470mm long x 750mm wide with and including 2no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F37 (Drawing 1518-603-14)	No	1		
BK	Type C worktop overall size 1800mm long x 600mm wide with and including 1no three drawer cabinets size 550mm long x 400mm wide x 750mm high in F44 & 24 (Drawing 1518-603-15)	No	2		
BL	Type C Worktop L-shaped office desk overall size 2800mm long x 600mm wide on shorter side and 450mm wide on longer side with and including 1no three drawer cabinets size 550mm long x 400mm wide x 750mm high (Drawing 1518-603-16)	No	25		
BM	Type C Worktop overall size 1100mm long x 600mm wide with and including 1no three drawer cabinets size 550mm long x 400mm wide x 750mm high (Drawing 1518-603-17)	No	5		
BN	Type C Worktop overall size 1100mm long x 600mm wide with and including two angle brackets (Drawing 1518-603-18)	No	20		
BP	Type C worktop overall size 1450mm long x 600mm deep x 900mm high with and including 1no cupboard type 1A under and 1no tall floor cupboard type F007 450mm wide x 600mm deep (Drawing 1518-603-19)	No	2		
BQ	Type C Wall shelf unit type P DOH Code 056 with two shelves (Drawing 1518-603-19)	No	2		
<u>SHELVING</u>					
<u>1800 x 300mm Wide CCA treated PAR softwood open slat shelf layout 25 x 44mm</u>					
BR	Type i2 Shelving (Drawing 1518-607-01)	No	9		
Carried to Collection				R	
Bill 8 Carpentry And Joinery					

THE FOLLOWING IN PINNING BOARDS

"Parrot" or equal and approved

BS	Type N14 900 x 1200mm High carpet finished bulletin board with and including aluminium frame code BD0441	No	67
BT	Type N15 size 1500 x 1200mm High carpet finished bulletin board with and including aluminium frame code BD0460	No	4
BU	Type N16 size 900 x 1200mm High magnetic steel surface white board with and including aluminium frame code BD0941	No	62

TIMBER LOUVRE SCREEN

Balau

BV	180 x 50 Planks bolted into steel fixing brackets at 300mm centres with 8mm stainless steel bolts (brackets elsewhere measured)	m	439
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Bill 8
Carpentry And Joinery

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Section 2

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Carpentry And Joinery

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Item			Quantity	Rate	Amount
<u>SECTION 2</u>					
<u>BILL NO. 9</u>					
<u>FLOOR COVERINGS</u>					
<u>Note: For CPAP purposes workgroup 130 to apply</u>					
<u>PREAMBLES</u>					
For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>FLOOR COVERINGS</u>					
Fully flexible FloorworX Superflex and or equal approved vinyl sheeting 2.5mm thick x 1.2m wide laid in FloorworX no.62 and acrylic adhesive. Joints must be butted, grooved and heat welded. All strictly in accordance with manufacturers instruction					
<u>2.5mm Thick fully flexible vinyl sheeting with welded joints</u>					
A	LI On floors	m2	100		
<u>2mm Thick x 2mm wide Polyflor 2000PUR fully flexible PVC sheet flooring with monolayer and homogeneous construction, directional duotone marbelized design and PUR reinforcement colour Lace blue code 85000 or equal and approved</u>					
B	LI On floors	m2	2 459		
Carried to Collection					R
Bill 9 Floor Coverings					

	<u>Artificial grass laid by approved specialist over waterproofing to falls (waterproofing elsewhere measured) comprising 25mm thick pile of stem yarn (4 tone colour) with triple backing with 8kg Silica +3kg rubber per m2 infill supplied with 8-year warranty (colour Emerald Green)</u>		
C	LI On floors	m2	484
	<u>Trio scraper 100% polypropylene needle ribs alternated with woven brush and drying stripes in polyamide with and including 13mm thick anti-slip latex laid in mat well with brass edging strip</u>		
D	3947 x 2000mm Matt	No	2
	<u>SKIRTINGS, NOSINGS, ETC</u>		
	<u>Polyfor skirting</u>		
E	150mm High cove skirting with 350mm girth in alternative colour with PC20 Cove fillet and including CS48 capping strip colour grey	m	2 515
	<u>VAPOUR BARRIER</u>		
F	TAL Vapour Stop moisture barrier	m2	2 559
	<u>POLISH, SEALERS, ETC</u>		
G	LI Clean and polish floors using two coats polymer floor dressing.	m2	100
	<u>CARPET TILES</u>		
	<u>Belgotex BERBERPOINT 920 or equal and approved 4.2m wide NexBac tiles installed in tessellated format only and manufactured from stainproof miracle fibre. Laid in accordance with SANS10186 fitting code of practice with 5 year guarantee and 10 year warranty, made in South Africa with a Green Tag A level certification.</u>		
H	LI On floors	m2	398
Carried to Collection			R
Bill 9 Floor Coverings			

Section 2

Bill 9

Floor Coverings

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Bill 9
Floor Coverings

R

Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 900mm. Where these dimensions are more than 900mm such portions of ceilings have been included in the appropriate general items of ceilings

Unless otherwise described bulkheads shall be deemed to be horizontal along the length

Steel components

All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121

SUSPENDED CEILINGS

Proprietary suspended ceilings

Ceilings and support framework are to comply with Part T of the national building regulations with tiles in compliance with Surface Fire Index Test : SANS 10777 Part 3 Class 1 and SANS 428 overall classification Class B/B1/2

Only non-combustible ceilings and insulation allowed (Class A/A1)

Hangers for suspended ceilings are to be 19mm wide by 0,5mm thick galvanised strapping, strapped and secured to tie beams by means of 32mm grabber screws or fixed to concrete soffits by means of 6 x 30mm express nails and washers. All tee sections and wall trimmings to be of galvanised metal, powder coated to specified colour. Grid Tee system to consist of 38 x 24 x 0,35mm Fire-rated Main and Cross tees. Main tee suspended at 1200mm centres and Cross tees to be fitted at 600mm centres, at right angles to main tees. Room perimeter to be finished with 20 20 x 20 x 0,5mm Shadowline Wall Trim fixed to wall by means of wall anchors at 450mm centres

Carried to Collection

Bill 10
Ceilings, Partitions And Access Flooring

R

Support Tee section for light fittings to be secured at diagonal corners of fitting to roofing member or concrete soffits

Fittings to ceilings or hospital curtain track hangers are to be secured through suspended ceiling grid system and supported from roof truss tie beams or concrete slab all to manufacturer's instructions

Note:

Electrical light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility inseting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)

1200 x 600mm Ceiling tiles of Calcium Silicate vinyl with square edges and pre-painted white laid on exposed tee grid system with main tees suspended with 2.5mm galvanised wire at 1200mm centres and cross tees at 600mm centres at right angles to main tees. Ceilings installed by approved specialist and in accordance with manufacturer's recommendations

A	Ceiling suspended not exceeding 1m below trusses/concrete slab	m2	2 924
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9mm Flush Jumbo plasterboard ceiling suspended flush at 45 degrees with and including 3600mm Jumbo main tees at 1200mm centres in one direction and 1200mm (9mm) Jumbo cross tees at 400mm centres perpendicular to main tees. Main tees to be suspended at 1200mm centres by means of 25 x 25 x 0.6mm galvanised steel angle, hangers fixed to bulb of main tee with wafer tek screws/steel pop rivets and to slab with 6 x 30mm express nails and washers. Plasterboard fitted to the underside of grid system with tapered edge of board facing down with 25mm drywall screws at 150mm centres. Apply 50mm JUMBO tape to all joints and finished with and including 3-5mm JUMBO Skimming Plaster

B	Raking ceiling suspended flush not exceeding 1m below trusses/concrete slab	m2	309
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Carried to Collection

Bill 10
Ceilings, Partitions And Access Flooring

R

	<u>12mm Jumbo plasterboard secured to form bulkhead and including 51mm general mild steel track and stud framing. Tapered edge of board facing outwards with 25mm drywall screws at 150mm centres. Apply 50mm JUMBO tape to all joints and finish the entire bulkhead with 3-5mm JUMBO Skimming Plaster</u>		
C	Bulkhead 1050mm wide and 500mm deep	m	8
	<u>CORNICES, TRIMS, ETC</u>		
D	Shadowline wall trim	m	2 650
	<u>INSULATION</u>		
	<u>1220mm wide x 60mm Laminated polyisocyanurate insulation core board (PIR) with minimum core density of 34kg/m3. Upper facing to be natural matt mineral-coated fibreglass tissue; lower facing to be white matt mineral-coated fibreglass tissue, laminated on both sides</u>		
E	Insulation fixed concurrent with roof covering and fitted over purlins with galvanised straining wires at 300mm centres	m2	1 481
	<u>PARTITIONS ETC</u>		
	<u>Pelican Systems or equal and approved JUMBO AcousticWall 63/120/S50 with overall thickness of 124mm with 63mm JUMBO studs at 600mm centres friction fitted into head track and floor track with 63mm thick JUMBO Sound Therm in cavity pf partition, and clad on both sides with a double layer of 15mm thick fire resistant JUMBO plasterboard fixed at 220mm centres using 25mm drywall screws on the base layer and 41mm drywall screws on the face layer, all plasterboard joints to overlap. All exterior joints to be covered with JUMBO fibre tape and finished with two layers of JUMBO jointing plaster applied and lightly sanded down, leaving wall surface prepared for painting (painting elsewhere measured) all in accordance with the supplier's recommendations</u>		
F	Partitioning overall 3.40m high	m	117
G	Extra over partition 3.40m high for vertical abutment	No	18
	Carried to Collection		
	Bill 10		
	Ceilings, Partitions And Access Flooring		

H	Ditto for T-Intersection	No	22
J	Ditto for corner	No	11
K	Ditto for open end	No	5
<p><u>63mm Stud drywall partition with 60 Cavitybatt insulation and faced to both sides with 12mm plasterboard finish, skimmed. Tapered edge drywall partitioning used, the base is to be sealed with and including sound insulation under floor track for infection control with cavity batt insulation. All joints on plaster board to be covered with 50mm fibre tape and made good with quick dry skimming compound ready for painting. Painting elsewhere measured</u></p>			
L	Partitioning overall 3.40m high	m	10
M	Extra over partition 3.40m high for vertical abutment	No	2
N	Ditto for T-Intersection	No	2
P	Ditto for corner	No	2
Q	Ditto for open end	No	2
<p><u>ACCESS FLOORING</u></p>			
<p><u>RhinoROC® Covered Panel ROC100F Medium Duty molded steel, cement filled raised access flooring system or equal and approved</u></p>			
R	600 x 600mm Modular 33.5mm thick panels to accommodate maximum dynamic loads to 33kN, ROC100F, panels finished with carpet tiles. All including Electro-galvanized steel made pedestal, adjustable from heights 500mm. Base tube size 22mm x 1.5mm, Base plate size 100mm x 100mm x 2.3mm. Head plate size 75mm x 75mm x 4.0mm M19 Threaded rod and steel tube preformed stringer with plastic gasket on top. Carpet tiles elsewhere measured.	m2	398
<p>Carried to Collection</p>			
<p>Bill 10</p>			
<p>Ceilings, Partitions And Access Flooring</p>			

Section 2

Bill 10

Ceilings, Partitions And Access Flooring

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Bill 10

Ceilings, Partitions And Access Flooring

R

<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<u>SECTION 2</u>			
<u>BILL NO. 11</u>			
<u>IRONMONGERY</u>			
<u>Note: For CPAP purposes workgroup 132 to apply</u>			
<u>PREAMBLES</u>			
For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Proprietary items</u>			
Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items			
Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered			
On request returnable samples are to be provided to the principal agent for consideration			
Carried to Collection			
Bill 11			
Ironmongery			
R			

Finishes to ironmongery

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:

BS Satin bronze lacquered
CH Chromium plated
SC Satin chromium plated
SE Silver enamelled
GE Grey enamelled
AN Anodised natural
AS Anodised silver
AB Anodised bronze
AG Anodised gold
ABL Anodised black
PB Polished brass
PL Polished and lacquered
PT Epoxy coated
SD Sanded

All stainless steel linings to doors to be 1.2mm thick
Grade 304 stainless steel

HINGES, BOLTS, ETC

"Assa Abloy" and or equal approved

A	JH-BB-SS-STD-2BB 100 x 75mm Stainless steel Gr13 butt hinge	No	529
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"Union" and or equal approved

B	8052-200SC 200mm Flush bolt SC	No	61
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C	BB150 150mm Barrel bolt	No	2
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D	SP-JH-BB-STD-2SS SS 2BB butt hinge EN1935GRD13	No	122
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CATCHES, CABIN HOOKS, ETC

"Union" and or equal approved

E	ARC1182SS Roller catch stainless steel	No	39
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Carried to Collection

Bill 11
Ironmongery

R

LOCKS

"Union" and or equal approved

F	CY2X18-65SNKD Satin nickel Gemini Euro-profile 65mm double cylinder	No	7
G	CY2X19-65SNKD Satin nickel Gemini Euro-profile thumbturn 65mm cylinder	No	109
H	CY2X20-35SNKD Satin nickel Gemini Euro-profile single 35mm cylinder	No	43
J	L-2215-78SS/SL E/P Cylinder upright lock	No	82
K	2X20SCKA Single cylinder profile	No	25
L	L-2115-78SS Stainless steel Euro cylinder deadlock	No	53
M	L-21315-76SS 323 Stainless steel Cylinder deadlock	No	25
N	QR50X85MM-SS 50mm Backset polished brass euro- cylinder roller and dead bolt mortice lock	No	24
P	SS2016SS Stainless steel Bathroom deadlock	No	35
Q	37651AS Paraplegic facility indicator bolt AS	No	18
R	J-881TD-W-SIL 1200mm Panic latch touch bar with dogging device	No	14
S	SS5305-05H Stainless steel escutcheon on rose profile	No	25
T	RH7024 Nickel plated patent fixing screw	No	468

HANDLES

"Union" and or equal approved

U	SS6166-05SS Dove lever handle on 152 x 152mm stainless steel backplate profile	Pairs	82.0
V	SS5D152X304-06 22mm diameter tubular SS Dove pull handle on 152 x 304mm back plate, blank	No	26

Carried to Collection

Bill 11
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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

W	SS5D152X304L-05 22mm diameter tubular SS Dove pull handle on 152 x 304mm back plate, euro cylinder	No	64
X	SS5D152X304R-05 22mm diameter tubular SS Dove pull handle on 152 x 304mm back plate, euro cylinder	No	39
Y	SS5D67TR-5004SS Stainless steel Dove pull handle on 152 x 178mm backplate with RH bathroom escutcheon	Pairs	21.0
Z	SS5D67TL-5004SS Stainless steel Dove pull handle on 152 x 178mm backplate with LH bathroom escutcheon	Pairs	14.0
AA	SS5004SS Flush pull handle radius	No	26
AB	PHD-CF-150-22SS BT 22mm diameter Pull handle with flange fixing 150mm centres	No	64
AC	PHD-CF-300-22SS BT Handle with flange fixing - 300mm centres 22mm diameter	No	18
<u>SUNDRIES</u>			
<u>"Union" and or equal approved</u>			
AD	2915SC Satin chrome rebate set	No	26
AE	2700SS Stainless steel rebate set for case size 76	No	17
AF	99011SS 27mm Wall door stop	No	102
AG	99022SS 82mm Wall projection door stop	No	98
AH	8852SC Dust proof strike	No	1
<u>DOOR CLOSERS</u>			
<u>"Assa Abloy" and or equal approved</u>			
AJ	DC700DA Cam motion closer EN 3-6 SIL DA	No	9
AK	DC500 Cam motion closer EN 1-4 SIL	No	94
AL	FD461-DC500 Mech co-ordinator double door SIL EN1-4	No	5

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AM	DCA120-40 Straight mounting plate for door closers	No	106
AN	FD464-DC500 El.Mech HO device double door SIL EN1-4	No	1
AP	FWASH 8 x 28 x 15mm Flat steel washer for door closer M5 fixings	No	112
AQ	M5 Male Female fixings for door closers	No	108
<u>PUSH PLATES AND KICKING PLATES</u>			
<u>"Union" and or equal approved</u>			
AR	SS5023-06-304W 152 x 304mm Stainless steel blank push plate	No	39
AS	SS5023R-05-304W 152 x 304mm Stainless steel push plate RH with euro cylinder	No	4
AT	SS5023L-05-304W 152 x 304mm Stainless steel push plate LH with euro cylinder	No	4
<u>1.6mm Thick grade 304 stainless steel</u>			
AU	900 x 300mm High kick plate with and including meeting stiles	No	146
AV	1000 x 300mm High kick plate with and including meeting stiles	No	50
AW	1350 x 300mm High kick plate with and including meeting stiles	No	12
AX	1800 x 300mm High kick plate with and including meeting stiles	No	18
<u>1.2mm Thick grade 304 stainless steel</u>			
AY	900 x 1050mm High lining to both faces and returning to lock side of door	No	14
AZ	1000 x 1050mm High lining ditto	No	110
BA	1200 x 1050mm High lining ditto	No	4

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

BB	1350 x 1050mm High lining ditto	No	24
BC	1800 x 1050mm High lining ditto	No	16
BD	1000 x 1100mm High lining to entrance face and returning to lock side of door	No	17
<u>BATHROOM FITTINGS</u>			
<u>"Franke" and or equal approved</u>			
BE	RODX672 341 x 184 x 138mm wall mounted double toilet roll holder with spindle system for wall mounting, 0,8mm stainless steel satin finished. Folded front cover. Cylinder lock with Franke standard key. For 2 rolls with max 120mm diameter, second roll will be released after consumption of first roll, reserve roll not visible. Including all stainless steel screws and dowels (Product Code 2120101)	No	18
BF	RODX672E 341 x 184 x 138mm Double recessed toilet roll holder with spindle system for recessed mounting, 0,8mm stainless steel satin finished. Folded front cover. Cylinder lock with Franke standard key. For 2 rolls with max 120mm diameter, second roll will be released after consumption of first roll, reserve roll not visible. Including all stainless steel screws and dowels (Product Code 2120102)	No	11
BG	STRX618 304 x 100 x 134mm Stainless steel surface mounted soap dispenser (Product Code 2120041)	No	50
BH	RODX619 200 x 140 x 85mm wall mounted soap dispenser, 0,8mm stainless steel, surface satin finished. Folded front cover. Cylinder lock with Franke standard key suitable for liquid soaps and lotions, 1 litre soap tank, push button on front. Including all stainless steel screws and dowels (Product Code 2120095)	No	36
BJ	RODX600 Surface mounted paper towel dispenser (Product Code 2120099)	No	96
Carried to Collection			
Bill 11			
Ironmongery			

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

BK	484mm x 526mm Fold down shower seat manufactured from grade 304 stainless steel, white battens made from Polyethylene and rounded corners (Product Code CNTX400A)	No	6		
BL	BR6 Rack for 6 pans / 6 wash bowls & 7 bottle urinals (Product Code 2630020)	No	8		
BM	355 x 168 x 460mm RODX605 Stainless steel waste disposal bin wall mounted with and including screws and dowels (Product code: 2120097)	No	20		
BN	200 x 295 x 165mm RODX605 Stainless steel sanitary towel disposal bin wall mounted with and including screws and dowels (Product code: 2120070)	No	20		
BP	Medical innovations medical refuse bag holder with and including epoxy coated steel frame (Product code 275-00)	No	78		
BQ	300 x 96 x 300mm "Paraplegic Model CNTXPAR" grab rail 31,8mm diameter, manufactured from 18/10 stainless steel with satin finish to prevent slipping, including screws and dowels. Certified product (Product Code 359885)	No	8		
BR	750 x 95mm "Straight Model CNTX750" grab rail, 31,8mm diameter, manufactured from 18/10 stainless steel with satin finish to prevent slipping, including screws and dowels. Certified product (Product Code 359874)	No	8		
BS	155 Diameter x 260mm 2.0mm stainless steel recessed toilet roll holder, surface satin finished with and including 118 diameter x 110mm manufactured from grade 301 (18/10) stainless steel, 2mm gauge, unit with 20mm gauge and 2 x M10 treaded rods for bolting the unit through the wall product (Product Code 2120037)	No	61		
Carried to Collection				R	
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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

CB	Blind for type G window size 3000 x 600mm high	No	1		
CC	Blind for type H window size 1800 x 600mm high	No	4		
CD	Blind for type M window size 1800 x 1595mm high	No	4		
CE	Blind for type N window size 3000 x 1595mm high	No	2		
CF	Blind for type O window size 1200 x 1595mm high	No	3		
CG	Blind for type P window size 600 x 1595mm high	No	2		
CH	Blind for type Q window size 800 x 1595mm high	No	4		
	<u>"Hospitrack" or equal and approved Polycotton Twil 80/20 curtain drapes code H/T/BS1900W, 900mm length drop on HSRA001 Hospi-alu single racer track</u>				
CJ	Blind for type G curtain wall size 7235 x 900mm high	No	1		
	<u>"Hospitrack" or equal and approved Polycotton Twil 80/20 curtain drapes code H/T/BS1900W, 1815mm length drop on HSRA001 Hospi-alu single racer track</u>				
CK	Blind for type A curtain wall size 7040 x 1815mm high	No	1		
CL	Blind for type B curtain wall size 5060 x 1815mm high	No	1		
	<u>"Hospitrack" or equal and approved Polycotton Twil 80/20 curtain drapes code H/T/BS1900W, 2250mm length drop on HSRA001 Hospi-alu single racer track</u>				
CM	Blind for type C curtain wall size 2505 x 5070mm high	No	1		
CN	Blind for type D curtain wall size 3570 x 5070mm high	No	8		
CP	Blind for type E curtain wall size 2395 x 5070mm high	No	1		
	<u>"Hospitrack" or equal and approved Polycotton Twil 80/20 curtain drapes code H/T/BS1900W, 3000mm length drop on HSRA001 Hospi-alu single racer track</u>				
CQ	Blind for type O curtain wall size 5000 x 3000mm high	No	1		
Carried to Collection					R
Bill 11 Ironmongery					

	<u>"Hospitrack" or equal and approved Polycotton Twil 80/20 curtain drapes code H/T/BS1900W, 4100mm length drop on HSRA001 Hospi-alu single racer track</u>				
CR	Blind for type M curtain wall size 3570 x 5440mm high	No	8		
CS	Blind for type N curtain wall size 2386 x 5440mm high	No	1		
CT	Blind for type P curtain wall size 2367 x 5440mm high	No	2		
CU	Blind for type Q curtain wall size 3550 x 5440mm high	No	9		
	<u>"Hospitrack" or equal and approved curtain</u>				
CV	Curtain for type Q size 800 x 1595mm high	No	1		
	<u>CURTAIN TRACKS</u>				
	<u>Code SK/SS21 Hospi-Shadowline or equal and approved suspended cubicle bed screen rails 10 micron natural anodised extruded profile H/S 43353 formed to accommodate bed closure complete with 12 runners per linear meter suspended 1200mm below ceiling with and including aluminium hanger tube fitted to the ceiling or cross tees installed at a height of 2.1m from the finished floor level including bends, ends stops and Poly-cotton Twil 80/20 (Code H/T/BS1900) curtain (Drawing 1518-607-03)</u>				
CW	Type T Cubicle rail 8m long including 2 x 90 degree bends and 2 stop ends and curtain	No	4		
CX	Type U Cubicle rail 4m long including 2 x 45 degree bends and 2 end stops and curtain	No	10		
	<u>SIGNAGE</u>				
	All signage shall comply with SABS 1186-1997 and must bear SABS logo fire sign				
	<u>"Union" and or equal approved</u>				
CY	SS5066-06SSE14 "Paraplegic Toilet" sign	No	9		
CZ	SP5066-06SSE05 152 x 152 x 1,2mm stainless steel "Fire Hose Reel" sign	No	11		
	Carried to Collection			R	
	Bill 11 Ironmongery				

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

DA	SS5066-06SSE04 Solid "Fire Hydrant" sign	No	11
DB	SS5066-06SSE01 "Electric Shock" sign	No	4
DC	SP5066-06SSE10 152 x 152 x 1,2mm stainless steel "Male" sign	No	14
DD	SP5066-06SSE11 152 x 152 x 1,2mm stainless steel "Female" sign	No	11
	<u>Main sign</u>		
DE	1200 x 6000mm High Hualamin mill finish aluminium to receive Colour-Tech PVDF with signage graphics fixed to steel structure to one side	No	1
DF	1200 x 6950mm High Hualamin mill finish aluminium to receive Colour-Tech PVDF with signage graphics fixed to steel structure to both side	No	1
	<u>Maisey Cosign Modular Plus Outdoor or equal and approved signage system code A00 3 808IT 80mm slotted Octagonal post (Black), with ABS end plate AOT808-3 with and including concrete footings for installation in landscape garden signage plates in code A00 2 250- Anodised 250mm double sided aluminium lettering panel and including panel clamps signage artwork in Avery Dennison 700 Premium film in full print area.</u>		
DG	Type N1 size 1500 x 1500mm High public or pedestrian parking direction sign	No	2
Carried to Collection			
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Ironmongery			

	<u>Single sided wall mounted external exposure sign framing in Maisey Cosign I-Sign Display rang or equal and approved signage system comprising anodised aluminium frame size 25x30mm section code ID-SS 2000 and ID-SS corner joiners with and including signage panel in 1.2mm G4 Colortech pre-painted aluminium sheet, signage artwork in Avery Dennison 800 premium cast film in full print area with UV stabilised ink and panel fixed with 3M double sided tape for external exposure as per manufacturer's recommendation and self tapping stainless steel screws at maximum 400mm cc.</u>				
DH	Type N2 size 420 x 1300mm High building foyer departmental sign	No	1		
DJ	Type N3 size 420 x 960mm High ditto	No	3		
	<u>Sign framing in Maisey Cosign Strato or equal and approved indoors signage system double sided profile comprising 3 x 600 x 210mm panel sections code ST-212600-S + 2 x STRATOCON2 +2 x ST-212600-SD. suspended by and including APC4101 conical suspension hanging kit, 5mm Perspex signage panel sheets and signage artwork in Avery Dennison 700 premium film in full print area.</u>				
DK	Type N5 size 600 x 636mm High building foyer department sign	No	4		
	<u>Sign framing in Maisey Cosign Strato or equal and approved wall mounted indoor signage system comprising 600 x 210mm code ST-212600W supplied with 0.5mm non-reflective acrylic cover, and fixing screws, signage artwork in Avery Dennison 700 premium film in full print area.</u>				
DL	Type N6 size 600 x 212mm High department sign	No	25		
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Carried to Collection					
Bill 11 Ironmongery					

	<u>Sign framing in Maisey Cosign Strato or equal and approved indoors signage system double sided profile comprising 4 x 600 x 105mm panel sections code ST-109600-S + 3 x STRATOCON2 +3 x ST-10600-SD. suspended by and including APC4101 conical suspension hanging kit, 5mm Perspex signage panel sheets and signage artwork in Avery Dennison 700 premium film in full print area.</u>				
DM	Type N7 size 600 x 436mm High department sign	No	3		
	<u>Maisey Cosign Strato or equal and approved indoors wall mounted signage system in single sided profile, code ST-150500-W and signage artwork in Avery Dennison 700 premium film in full print area.</u>				
DN	Type N8 size 500 x 150mm High info writing desk sign	No	48		
DP	Type N9 size 500 x 150mm High info writing desk sign	No	22		
DQ	Type N10 size 500 x 150mm High internal statutory signage	No	95		
	<u>Sign framing in Maisey Cosign Strato or equal and approved indoors projected wall mounted double sided signage system code ST-150210-P and signage artwork in Avery Dennison 700 premium film in full print area.</u>				
DR	Type N8 size 148 x 120mm High info writing desk sign	No	48		
DS	Type N9 size 148 x 210mm High info writing desk sign	No	22		
	<u>Maisey Cosign Strato or equal and approved indoors wall mounted signage system in single sided profile, code ST-150300-W and signage artwork in Avery Dennison 700 premium film in full print area.</u>				
DT	Type N11 size 200 x 300mm High internal statutory signage	No	166		
Carried to Collection					R
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	<u>"Franke Model Z Series" (or equal and approved) wall mounted stainless steel shelving consisting of 1.2mm thick grade 18/10 stainless adjustable shelves and 1.2mm thick grade 304 stainless wall bands</u>			
EJ	Type P 1000mm Long double slotted wall band plugged (Code 2620125)	No	33	
EK	Type P Shelf size 900 x 300mm (Code 2620036)	No	44	
	<u>"Franke" or equal and approved Model W wall bench manufactured from grade 304 stainless steel 1.2mm thick with a 150mm integral splash back at the back and 50 x 10mm turn down on the remaining sides, the underside sprayed with vermin proof bitumastic sound deadening and supporting with 30 x 30 x 3mm framework and galvanised mild steel backing sheet fixed to finished floor level with and including anchor bolts</u>			
EL	Type O wall bench size 1850 x 650 x 900mm code 2620117 (Drawing 1518-607-02)	No	4	
	<u>Light duty racking in powder coated steel braced framed bays 450 x 2100mm lengths and 50mm deep open beams in 1200mm length UDL 750kg capacity of uniformly distributed load with and including 450 x 2100Ht end frames with foot plate and bolting to wall, 50mm deep open beams and 300mm wide powder coated steel shelf plates</u>			
EM	Type H1 Frame bays (Drawing 1518-607-01)	No	27	
	<u>Light duty racking in powder coated steel braced framed bays 450 x 2100mm lengths and 50mm deep open beams in 1500mm length UDL 6780kg capacity of uniformly distributed load with and including 450 x 2100Ht end frames with foot plate and bolting to wall, 50mm deep open beams and 300mm wide powder coated steel shelf plates</u>			
EN	Type H2 Shelving (Drawing 1518-607-01)	No	61	
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PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD

	<u>Light duty racking in powder coated steel braced framed bays 450 x 2100mm lengths and 50mm deep open beams in 1200mm length UDL 750kg capacity of uniformly distributed load end frames including foot plate and bolting to wall, with and including shelving of 25 x 44mm PAR enamel painted hardwood slats at 80mm c/c (7 tier shelving with 14 no open beams per module)</u>				
EP	Type i1 Frame bays (Drawing 1518-607-01)	No	9		
	<u>Light duty racking in powder coated steel braced framed bays 450 x 2100mm lengths and 50mm deep open beams in 1500mm length UDL 678kg capacity of uniformly distributed load end frames including foot plate and bolting to wall, with and including shelving of 25 x 44mm PAR enamel painted hardwood slats at 80mm c/c (7 tier shelving with 14 no open beams per module)</u>				
EQ	Type i2 Frame bays (Drawing 1518-607-01)	No	9		
	<u>Cranium medical products or equal and approved 610 x 560 x 1980mm high bedroom cupboard in molded LLDPE plastic with including anti-ligature hanging rail, single shelf, side hung door and sloping top</u>				
ER	Type F4 Cupboard (Drawing 1518-607-01)	No	8		
	<u>Imperial or equal and approved powder coated bolted angle shelving including uprights in 35 x 35 x 1.6mm upright angles of lengths 2.134m code Mr Shelf USA00352134 and 914 x 381 x 0.8mm -160kg UDL shelves code Mr Shelf UAS09140381, each module to include 5 tiers of shelves 4 time single steel foot angles and 30 corner gussets and 100 x M8 x 16 bolts</u>				
ES	Type G1 Shelf unit (Drawing 1518-607-01)	No	23		
Carried to Collection					R
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	<u>Imperial or equal and approved powder coated bolted angle shelving including uprights in 35 x 35 x 1.6mm upright angles of lengths 2.134m code Mr Shelf USA00352134 and 914 x 457 x 0.8mm -160kg UDL shelves code Mr Shelf UAS09140457, each module to include 5 tiers of shelves 4 time single steel foot angles and 30 corner gussets and 100 x M8 x 16 bolts</u>				
ET	Type G2 Shelf unit (Drawing 1518-607-01)	No	10		
	<u>Franke or equal and approved Model Fastrack Modular shelving comprising solid shelves manufactured from 1.2mm thick grade 304 (18/10) stainless steel with die cast aluminium corner brackets for fixing to 1.2mm thick 25mm diameter vertical posts fitted with end caps at one end and adjustable foot piece</u>				
EU	Type i3 1000 x 400mm Shelves code 2620052 in five tier configuration (drawing 1518-607-02)	No	8		
EV	Type i4 1250 x 400mm Shelves code 2620053 in five tier configuration (Drawing 1518-607-02)	No	1		
	<u>Plastic locker</u>				
EW	Type L1 310 x 380 x 1830mm Flat top 2 tier plastic lockers with mesh door with adjustable feet (Drawing 1518-607-02)	No	10		
	<u>Mr Shelf or equal and approved</u>				
EX	Type L2 300 x 450 x 180mm Epoxy powder coated 4 tier mesh lockers fabricated from 7mm wire frames, 50 x 50 x 3.15mm wire mesh and hinged door including latch suitable for padlock code WLOCKS4DOORF (Drawing 1518-607-02)	No	6		
	<u>GUN SAFE</u>				
	<u>Mutual or equal and approved 6 bay Fire Arm Safe with dual locking consisting of 3mm reinforced steel body and separate safes with 6mm plate steel doors with recessed hinges, each safe fitted with two 7-lever key locks which are welded in a lock box</u>				
EY	300mm wide x 250mm deep x 900mm high gun safe	No	1		
	Carried to Collection			R	
	Bill 11 Ironmongery				

<u>FURNITURE</u>							
<u>Cranium Medical Products (or equal and approved)</u>							
EZ	Single psychiatric bed range Ibex with mattress range Ndlovu (Code RT54-B-20) size 2020 x 1020 x 460mm high	No	29				
FA	Ditto with restraints size 2020 x 1020 x 460mm high	No	2				
FB	Tapered dining chair without arm rests, size 840 x 600 x 840mm high	No	65				
FC	Ditto size 722 x 738 x 777mm high	No	20				
FD	Modular 3-seater lounging couch including two end modules of size 960 x 960 x 710mm and one intermediate module of 860 x 960 x 710mm high	No	3				
FE	Modular 3-seater lounging couch including two end modules of size 960 x 960 x 710mm and two intermediate module of 860 x 960 x 710mm high	No	3				
FF	4-Seater 900mm square x 825mm high recreational table including integral seating with tubular steel powder coated framing and HPL work top including polyethylene bumper surround bolted to floor slab	No	6				
FG	4-Seater rotomoulded circular recreational table 800mm diameter x 825mm high with HPL worktop including polyethylene bumper surround, bolted to floor slab	No	4				
FH	6-Seater rotomoulded circular recreational table 1200mm diameter x 825mm high with HPL worktop including polyethylene bumper surround, bolted to floor slab	No	1				
FJ	Coffee table size 933 x 933 x 410mm in seamless rotomolded LLDPE plastic base with HPL work top	No	4				
FK	Bedside table size 480 x 400 x 875mm high in seamless rotomoulded LLDPE plastic	No	31				
Carried to Collection						R	
Bill 11 Ironmongery							

PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD

FL	Rotomolded desk size 900 x 450 x 380mm mounted to wall at 750mm height	No	28		
	<u>Rodlin Design Versa (or equal and approved) waiting area seat durable system constructed with a self-skinning polyurethane seat and back, seat to be silver-grey epoxy powder coated mild steel frame, supplied in three seat configuration, centre to centre at 520mm, seat made up on a 9-ply cross-ply laminate moulded wood inner core that has outer integral impervious moulded foam skin that covers the entire chair</u>				
FM	3-Seat configuration of 520mm wide seats (Drawing 1518-607-0)	No	29		
	<u>Medicare Hospital Equipment or equal and approved instrument cabinet item, code MHE-ICDD5SH with double glass door fronted cabinet. Manufactured from 1.2mm mild steel sheets, Epoxy coated in white including lockable Doors- Steel Doors with 5mm glass inserts. Doors are mounted with 75mm butt hinges including 5 adjustable glass shelves. Cabinet mounted on 4 adjustable feet.</u>				
FN	Type Ai Cabinet size 900 x 450 x 1800mm high (drawing 1518-607-05)	No	2		
	<u>Mr Shelf or equal and approved double door powder coated steel stationery cabinet with adjustable shelves (x4) and 3 point locking mechanism code PRSC4S</u>				
FP	Type AH Cabinet size 900 x 450 x 1800mm (drawing 1518-607-05)	No	2		
	<u>BUMPRAILS AND CORNER PROTECTORS</u>				
	<u>Bump rail in PVC cover size 200 x 30mm depth centered at 850mm above finished floor level per wall protection product code P200 with aluminium fixing rail secured to brickwork and including two PVC impact absorbing inserts</u>				
FQ	Bumprail	m	216		
Carried to Collection					R
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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

Section 2			
Bill 11			
Ironmongery			
<u>COLLECTION</u>			
	<u>Page</u>		<u>Amount</u>
Total from page	2/81		
Total from page	2/82		
Total from page	2/83		
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Carried to Summary of Section 2		R	
Bill 11			
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Item	Quantity	Rate	Amount
<u>SECTION 2</u>			
<u>BILL No. 12</u>			
<u>STRUCTURAL STEELWORK</u>			
<u>Note: For CPAP purposes workgroup 134 to apply</u>			
<u>PREAMBLES</u>			
For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Steel Grades (SABS 1431):</u>			
·Hot rolled sections : Grade S355JR to EN10025-2			
·Hot rolled angles 50 x 50 and under and cold rolled			
open sections : Grade "CQ"(commercial quality steel to			
SANS 10162)			
·Hot formed hollow sections : Grade 355W to SANS 657-			
1			
Hot rolled : 300WA			
Cold rolled : Commercial Grade			
·Hot rolled sections : Grade S355JR to EN10025-2			
·Hot rolled angles 50 x 50 and under and cold rolled			
open sections : Grade "CQ"(commercial quality steel to			
SANS 10162)			
·Hot formed hollow sections : Grade 355W to SANS 657-			
1			
Contractor to check dimensions on site prior to			
fabrication. Any discrepancies to be reported to the			
Engineer immediately.			
No steelwork is to be fabricated prior to the Engineer's			
approval of shop drawings			
Carried to Collection			R
Bill 12			
Structural Steelwork			

Galvanising:

All members to be hot dip galvanised to SABS ISO 1461, SABS EN 10240, SABS ISO 14713

All hot rolled steelwork to be painted in accordance with the project specification

All cold rolled steelwork to be hot dip galvanised to SANS 121 and treated with suitable degreasing agent

The end of all tubular and hollow sections are to be sealed with nominal thickness plates and continuous fillet welds unless shown otherwise

All gusset and end plates to be 10mm unless shown otherwise

Purlins and girts shall be continuous over at least two spans unless shown otherwise

The end of all tubular and hollow sections are to be sealed with nominal thickness plates and continuous fillet welds unless shown otherwise

All gusset and end plates to be 10mm unless shown otherwise

Purlins and girts shall be continuous over at least two spans unless shown otherwise

Carried to Collection

Bill 12
Structural Steelwork

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<p>All welds to be full strength U.O.N.</p> <p>Welding shall be performed by a certified welder in accordance with the requirements laid down in the latest issue of SANS 10044</p> <p>Welds shall be 6mm continuous fillet welds with E70XX electrodes unless shown otherwise</p> <p>All bolts shall be M16 Grade 4.8 to SABS 135 unless shown otherwise</p> <p>Exposed ends of holding-down bolts shall be protected from damage during and after placement of concrete</p> <p>All welds to be full strength U.O.N.</p> <p>Welding shall be performed by a certified welder in accordance with the requirements laid down in the latest issue of SANS 10044</p> <p>Welds shall be 6mm continuous fillet welds with E70XX electrodes unless shown otherwise</p> <p>All bolts shall be M16 Grade 4.8 to SABS 135 unless shown otherwise</p> <p>Exposed ends of holding-down bolts shall be protected from damage during and after placement of concrete</p> <p>The contractor shall provide and leave in place until permanent bracing elements are constructed, such temporary bracing as is necessary to stabilise the structure during erection</p> <p>In the event of any site welding, the mould seal is to be chipped away, degreased with Aquasolve rinse and Cold galvanising SN176 applied.</p>			
<p><u>STEEL TRUSSES, RAFTERS AND PURLINS</u></p> <p>A 254 x 146 x 46mm I-section beam t</p> <p>Carried to Collection</p> <p>Bill 12 Structural Steelwork</p>	<p>17.72</p>		<p>R</p>

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

B	203 x 203 x 60mm H-section column	t	5.41
C	152 x 152 x 37mm H-section column	t	0.56
D	406 x 178 x 67mm UB rafters	t	22.90
E	254 x 178 x 43mm UB rafters	t	0.45
F	254 x 178 x 43mm UB cut for connections	t	0.07
G	406 x 178 x 67mm UB cut for connections	t	0.68
H	70 x 70 x 6mm Angle Bracing	t	1.64
J	100 x 100 x 8mm Angle false rafter	t	1.86
K	101,6 x 2,5mm Circular hollow section bracing	t	0.13
<u>Cleats, connection plates, etc to trusses</u>			
L	155 x 162 x 12mm Thick base plate welded to column and holed four times for M20 bolts	t	0.02
M	205 x 210 x 12mm Thick base plate welded to column and holed four times for M20 bolts	t	0.07
N	205 x 880 x 12mm Thick end plate welded to rafters and holed six times for M20 bolts	t	1.49
P	205 x 410 x 12mm Thick base plate welded to beams and holed six times for M20 bolts	t	0.14
<u>Holding down bolts</u>			
Q	M20 holding down bolt 510mm long with and including 70 x 70 x 12mm thick plate cast into concrete with 100mm bolt projection	No	112
<u>Chemical anchors embedded in concrete and projecting 75mm</u>			
R	M20 Chemical anchors embedded 170mm	No	108

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Bill 12
Structural Steelwork

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

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Section 2
Bill 12
Structural Steelwork

<u>Item</u>		<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<u>SECTION 2</u>				
<u>BILL NO. 13</u>				
<u>METALWORK</u>				
<u>Note: For CPAP purposes workgroup 136, 141, and 149 to apply</u>				
<u>PREAMBLES</u>				
For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Descriptions of bolts, anchors, etc</u>				
Descriptions of bolts shall be deemed to include nuts and washers				
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres				
<u>STAINLESS STEEL GRADE 304 DOOR FRAMES</u>				
<u>1,6mm Single rebated door frames suitable for 110mm brick walls</u>				
A	Frame for door size 950 x 2032mm high	No	21	
<u>1,6mm frames with 1932mm long jamb linings</u>				
B	Frame for door size 836 x 1932mm high	No	20	
Carried to Collection				R
Bill 13 Metalwork				

**PRESSED STAINLESS STEEL GRADE 304 DOOR
FRAMES**

**1,6mm Single rebated door frames suitable for
110mm brick walls**

C	Frame for door size 1500 x 2032mm high	No	6
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**1,6mm Single rebated splayed door frames suitable
for 90mm drywall**

D	Frame for door size 900 x 1932mm high	No	10
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**1,6mm Single rebated splayed door frames suitable
for 110 brick walls**

E	Frame for door size 900 x 2032mm high	No	36
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F	Frame for door size 1000 x 2032mm high	No	63
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G	Frame for door size 1350 x 2032mm high	No	7
---	--	----	---

H	Frame for door size 1800 x 2032mm high	No	6
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**1,6mm Single rebated splayed door frames suitable
for 230 brick walls**

J	Frame for door size 600 x 2032mm high	No	8
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K	Frame for door size 900 x 2032mm high	No	33
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L	Frame for door size 1000 x 2032mm high	No	14
---	--	----	----

M	Frame for door size 1350 x 2032mm high	No	7
---	--	----	---

N	Frame for door size 1800 x 2032mm high	No	6
---	--	----	---

**1,6mm Single rebated splayed door frames suitable
for 280 brick walls**

P	Frame for door size 1000 x 2032mm high	No	5
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**3mm Single rebated splayed door frames suitable
for 110 brick walls**

Q	Frame for door size 1000 x 2032mm high	No	2
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Bill 13
Metalwork

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POWDER COATED ALUMINIUM WINDOWS, DOORS, SHOPFRONTS, ETC.

The sizes indicated on the drawings are unfinished brickwork openings. The window manufacturer is required to measure and check all openings prior to fabrication of the windows.

Shop drawings and samples are to be submitted for approval by the Architect prior to manufacture. The drawings are to be comprehensively detailed showing all sections with sizes, gaskets, wet seals, fixings, etc which are all to be identified on the drawings together with the product identification.

All aluminium windows are to be protected after manufacture by removable PVC tape or other approved application. The protection is to be removed only when authorised by the Architect. Any component damaged in any way prior to the completion of the building is to be replaced with new. "Touching up" of decorative finishes will not be permitted.

Glass shall be free from flaws, specks, scratches, bubbles and any other defects and shall be cleaned down upon completion. Broken glass shall be replaced at the Contractor's expense.

Every window and all ironmongery is to be tested upon completion of the Contract, adjusted where necessary and left in perfect working order.

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Bill 13
Metalwork

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Prior to commencement of any work on site, the following certificates are to be provided and handed over to the Architect :

- Copy of the relevant AAAMSA performance certificate from the Manufacturer / Contractor supplying the architectural aluminium product
- A certificate of conformance certifying that all anodising or powder coating has been processed in strict accordance with SANS 999:2007 and SANS 1796/2001, respectively
- A powder guarantee of no less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the process and may only be applied by an approved powder applicator
- A certificate of conformance that the glazing has been installed in accordance with the NBR Part N, SANS 10137:2000 Code of Practice : "The Installation of Glazing in Buildings", SANS 10400-Part N:2006, SANS 1263-1:2006 and AAAMSA Selection Guide for Safety Glazing Materials, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing material has been permanently marked.
- A warranty from the Manufacturer of the laminated safety glass and / or hermetically sealed glazing units, warranting the products against de-lamination and colour degradation for a period of not less than 5 years

Frames to receive glazing to comply with SANS 0137, SANS 1263 & SANS 0400. All aluminium to be 25 micron anodised finish all as per SANS 999 & SANS 1407

AAAMSA test certificate A2 and SAGGA Certificate of Conformance to be provided for all aluminium work installed

Windows and curtain walls requiring ironmongery, this shall be included in the price and to be standard ironmongery as per manufacturer's specification

Carried to Collection

Bill 13
Metalwork

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POWDER COATED ALUMINIUM CASEMENT WINDOWS

Purpose made windows are referenced to drawings 1518-401-1 to 401-18 annexed to these bills of quantities

Window glazed with 6mm thick clear Low E safety glass

Crealco Swift 38 or equal and approved side hung aluminium casement window, casement sash to be 700 x 1500mm maximum size, fixing lugs suitable for plastered brickwork reveals glazed with 6,38mm normal strength PVB laminated Low E safety glass with and including all necessary furniture.

Y	Type A window in one fixed pane and one side hung opening pane size overall 2000 x 1200mm high (as per drawing 1518-401-1)	No	1
	<u>Crealco Swift 38 or equal and approved top hung aluminium casement window, casement sash to be 1500 x 1200mm maximum capacity, fixing lugs suitable for plastered brickwork reveals glazed with 6,38mm normal strength PVB laminated Low E safety glass with and including all necessary furniture.</u>		
Z	Type B window in three top hung opening sections and louvres above, size overall 1800 x 850mm (as per drawing 1518-401-2)	No	1
AA	Type D window in one fixed pane, size overall 1200 x 850mm (as per drawing 1518-401-4)	No	2
AB	Type M window in three fixed panes and three top hung opening sections, size overall 1800 x 1595mm (as per drawing 1518-401-13)	No	4
AC	Type N window in five fixed panes and five top hung opening sections, size overall 3000 x 1595mm (as per drawing 1518-401-14)	No	2

Carried to Collection

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Bill 13
Metalwork

PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD

AD	Type O window in two fixed panes and two top hung opening sections, size overall 1200 x 1595mm (as per drawing 1518-401-15)	No	3		
AE	Type P window in one fixed pane and one top hung opening section, size overall 600 x 1595mm (as per drawing 1518-401-16)	No	10		
AF	Type Q window in one fixed pane and one top hung opening section, size overall 800 x 1595mm (as per drawing 1518-401-17)	No	12		
AG	Type R window in two top hung opening sections with and including Y-louvre vent panel over casement, louvres at 30mm centres, size overall 1200 x 850mm (as per drawing 1518-401-18)	No	2		
	<u>Crealco Swift 38 or equal and approved top hung aluminium casement window, casement sash to be 1500 x 1200mm maximum capacity, fixing lugs suitable for plastered brickwork reveals, mullions in 100mm depth section code W54454 with Lx 71.5 glazed with 6,38mm normal strength PVB laminated Low E safety glass with and including all necessary furniture.</u>				
AH	Type C window in one top hung opening section with and including Y-louvre vent panel over casement, louvres at 30mm centres, size overall 600 x 850mm high (as per drawing 1518-401-3)	No	39		
	<u>Crealco Swift 38 or equal and approved top hung aluminium casement window, casement sash to be 1500 x 1200mm maximum capacity, fixing lugs suitable for plastered brickwork reveals glazed with 12mm thick toughened safety glass per PFG Armourplate with and including all necessary furniture.</u>				
AJ	Type E window in one top hung opening section, size overall 600 x 600mm (as per drawing 1518-401-5)	No	11		
AK	Type F window in two top hung opening sections, size overall 1200 x 600mm (as per drawing 1518-401-6)	No	3		
Carried to Collection					R
Bill 13 Metalwork					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AL	Type G window in five top hung opening sections, size overall 3000 x 600mm high (as per drawing 1518-401-7)	No	1		
AM	Type H window in three top hung opening sections, size overall 1800 x 600mm high (as per drawing 1518-401-8)	No	4		
AN	Type I window in three fixed panes and three top hung opening sections, size overall 2400 x 2295mm high (as per drawing 1518-401-9A)	No	2		
AP	Type J window in one fixed pane and one top hung opening section, size overall 800 x 2295mm high (as per drawing 1518-401-10)	No	27		
	<u>Crealco Swift 38 or equal and approved top hung aluminium casement window, casement sash to be 7235 x 900mm maximum capacity, fixing lugs suitable for plastered brickwork reveals glazed with 12mm thick toughened safety glass per PFG Armourplate with and including all necessary furniture.</u>				
AQ	Type S window in four fixed panes and one top hung opening section, size overall 7250 x 900mm (as per drawing 1518-401-19)	No	1		
	<u>Crealco Swift 38 or equal and approved top hung aluminium casement window, casement sash to be 1500 x 1200mm maximum capacity, fixing lugs suitable for plastered brickwork reveals, mullions in 100mm depth section code W54454 with Lx71.5 glazed with 12mm thick toughened safety glass per PFG Armourplate with and including all necessary furniture.</u>				
AR	Type K window in two fixed panes and two top hung opening section, size overall 1500 x 2295mm high (as per drawing 1518-401-11)	No	2		
AS	Type L window in four fixed panes and four top hung opening sections, size overall 2400 x 1595mm (as per drawing 1518-401-12A)	No	2		
Carried to Collection					R
Bill 13 Metalwork					

POWDER COATED ALUMINIUM FLUSH GLAZED CURTAIN WALL SYSTEM

Curtain walls are referenced to drawings 1518-402-01 to 402-05 annexed to these bills of quantities

Crealco Facade 60 or equal and approved aluminium pressure glazed drained facade system including top hung casement insert window per layout, casement sash to be 1500 x 1200mm maximum capacity, fixing lugs suitable for plastered brickwork reveals, mullions in 160mm depth section code W54454 with Lx 71.5 glazed with 6,38mm thick normal strength PVB laminated Low E safety glass with and including all necessary furniture.

Flush bolts and hinges to doors included as per manufacturers specifications

AT Type A curtain wall consisting of seven fixed panes and seven top hung opening sections, size overall 7040 x 1815mm high with and including standard fittings as per manufacturer's specification (as per drawing 1518-402-01)

No 1

AU Type B curtain wall consisting of five fixed panes and five top hung opening sections, size overall 5060 x 1815mm high ditto

No 1

Crealco Facade 60 or equal and approved aluminium pressure glazed drained facade system including top hung casement insert window per layout, casement sash to be 1500 x 1200mm maximum capacity, fixing lugs suitable for concrete or brickwork reveals, mullions in 160mm depth section code W58433 with Lx 484 glazed with 6,38mm thick normal strength PVB laminated Low E safety glass with and including all necessary furniture.

AV Type C curtain wall consisting of six fixed panes and two top hung opening sections, size overall 2505 x 5070mm high with and including horizontal 2505mm long 250 x 100 x 6 RHS steel bracing (as per drawing 1518-402-01)

No 1

Carried to Collection

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Bill 13
Metalwork

PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD

AW	Type D curtain wall consisting of nine fixed panes and three top hung opening sections, size overall 3570 x 5070mm high with and including horizontal 3570mm long 250 x 100 x 6 RHS steel bracing ditto	No	8		
AX	Type E curtain wall consisting of six fixed panes and two top hung opening sections, size overall 2395 x 5070mm high with and including horizontal 2395mm long 250 x 100 x 6 RHS steel bracing ditto	No	1		
AY	Type F curtain wall consisting of thirty two fixed panes, size overall 6107 x 10765mm high with and including horizontal 6107mm long 2no 250 x 100 x 6 RHS steel bracing and vertical 10765mm long 300 x 150 x 6 RHS steel bracing (as per drawing 1518-402-02)	No	1		
	<u>Crealco Swift 38 or equal and approved fixed glazed aluminium casement window per layout, fixing lugs suitable for plastered brickwork reveals, mullions in 100mm depth section code W54454 with Lx71.5 glazed with 6,38mm thick normal strength PVB laminated Low E safety glass.</u>				
AZ	Type G curtain wall consisting of three fixed panes, size overall 1500 x 6055mm high (as per drawing 1518-402-02)	No	1		
	<u>Crealco Swift 38 or equal and approved top hung aluminium casement window per layout, fixing lugs suitable for plastered brickwork reveals, glazed with 12mm thick toughened safety glass as per PFG Armourplate.</u>				
BA	Type U curtain wall consisting of five fixed panes, size overall 7235 x 900mm high (as per drawing 1518-401-7)	No	1		
Carried to Collection					R
Bill 13 Metalwork					

	<u>Crealco Facade 60 or equal and approved aluminium pressure glazed drained facade system including sliding door per layout, curtain wall mullions in 160mm depth section code W58433 with Lx 484 glazed with 6,38mm thick normal strength PVB laminated Low E safety glass with and including all necessary furniture.</u>				
BB	Type M curtain wall consisting of nine fixed panes and three top hung opening sections, size overall 3570 x 5440mm high with and including horizontal 3570mm long 250 x 100 x 6 RHS steel bracing (as per drawing 1518-402-04)	No	8		
BC	Type N curtain wall consisting of six fixed panes and two top hung opening sections, size overall 2386 x 5440mm high with and including horizontal 2386mm long 250 x 100 x 6 RHS steel bracing ditto	No	1		
BD	Type O curtain wall consisting of two fixed panes and two sliding opening sections, size overall 5000 x 3000mm high (as per drawing no 1518-402-04)	No	1		
	<u>Crealco Facade 60 or equal and approved aluminium pressure glazed drained facade system including top hung casement insert window per layout, casement sash to be 1500 x 1200mm maximum capacity, fixing lugs suitable for concrete or brickwork reveals, mullions in 190mm depth section code W58460 with Lx 1000 glazed with 8,38mm thick normal strength PVB laminated Low E safety glass with and including all necessary furniture.</u>				
BE	Type P curtain wall consisting of six fixed panes and two top hung opening sections, size overall 2367 x 5440mm high with and including horizontal 2367mm long 250 x 100 x 6 RHS steel bracing (as per drawing 1518-402-05)	No	2		
BF	Type Q curtain wall consisting of nine fixed panes and three top hung opening sections, size overall 3550 x 5440mm high with and including horizontal 3550mm long 250 x 100 x 6 RHS steel bracing ditto	No	9		
	Carried to Collection				R
	Bill 13 Metalwork				

	<u>Crealco Palace or equal and approved aluminium sliding door, fixing suitable for fixing in concrete or brickwork reveals glazed with 6,38mm thick normal strength PVB laminated safety glass.</u>				
BG	Type R curtain wall consisting of ten fixed panes and two sliding opening sections, size overall 2450 x 8355mm high with and including horizontal 2450mm long 250 x 100 x 6 RHS steel bracing (as per drawing 1518-402-05)	No	2		
BH	Type S curtain wall consisting of five fixed panes, size overall 4500 x 300mm high (as per drawing 1518-402-05)	No	2		
	<u>Crealco Clip44 or equal and approved aluminium shopfront system including fixed lights per layout, fixing suitable for fixing in concrete or brickwork reveals glazed with 12mm thick toughened safety glass per PFG Armourplate.</u>				
BJ	Type H corner curtain wall consisting of three fixed panes on 2x corner mullions, size overall 3530 x 1500mm high with and including standard fittings as per manufacturer's specification (as per drawing 1518-402-03)	No	2		
BK	Type I corner curtain wall consisting of four fixed panes on 3x corner mullions, size overall 3815 x 1500mm high ditto	No	2		
BL	Type J curtain wall consisting of five fixed panes on 4x corner mullions, size overall 6036 x 1500mm high ditto	No	2		
BM	Type K curtain wall consisting of three fixed panes on 2x corner mullions, size overall 4823 x 1500mm high ditto	No	2		
	Carried to Collection			R	
	Bill 13 Metalwork				

	<u>Crealco Facade 60 or equal and approved aluminium pressure glazed drained facade system including sliding door per layout, fixing suitable for fixing concrete or brickwork reveals glazed with 12mm thick toughened safety glass per PFG Armourplate with and including all necessary furniture.</u>				
BN	Type L curtain wall consisting of six fixed panes and two sliding opening sections, size overall 7220 x 3400mm high with and including horizontal 7220mm long 250 x 100 x 6 RHS steel bracing and 2no 3400mm high 250 x 100 x 6 RHS steel posts (as per drawing 1518-402-03)	No	4		
	<u>Crealco Clip44 or equal and approved aluminium shopfront system including fixed lights per layout, fixing suitable for fixing in concrete or brickwork reveals glazed with 6,38mm thick normal strength PVB laminated safety glass.</u>				
	<u>4mm Hulabond or equal and approved spandrel pre-coated aluminium faced panel with and including fire retardant foam core</u>				
BP	Extra over for panel size 1178 x 1270mm high for window type C	No	2		
BQ	Ditto for panel size 1178 x 1325mm high ditto	No	2		
BR	Ditto for panel size 1123 x 1270mm high for window type D	No	24		
BS	Ditto panel size 1123 x 1325mm high ditto	No	24		
BT	Ditto for panel size 1123 x 1270mm high for window type E	No	2		
BU	Ditto panel size 1123 x 1325mm high ditto	No	2		
BV	Ditto for panel size 1109 x 1355mm high for window type F	No	2		
BW	Ditto panel size 1820 x 1355mm high ditto	No	2		
BX	Ditto panel size 1109 x 1325mm high ditto	No	2		
	Carried to Collection			R	
	Bill 13 Metalwork				

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

BY	Ditto panel size 1820 x 1325mm high ditto	No	2
BZ	Ditto for panel size 1123 x 1355mm high for window type M	No	24
CA	Ditto for panel size 1112 x 1355mm high for window type N	No	2
CB	Ditto panel size 1123 x 1355mm high for window type P	No	4
CC	Ditto panel size 1117 x 1355mm high for window type Q	No	27
<u>FENCING</u>			
<u>Wireforce Wirewall code 358 or equal and approved 3000mm wide x 3600mm high mesh fencing panels with 4 V profile topped with secure razor wire flat wrap on galvanised straining wires comprising 3600mm high posts at 3050mm centres set in and including concrete pads, mesh in 75 x 12.5 apertures, 4mm vertical wires and 4mm horizontals, base material in 220g/sqm Aluzinc coating with finishing 400 micron coloured thermoplastic finish</u>			
Fencing, gates, etc all in accordance with the separate "Drawings" document issued with these Bills of Quantities. Drawing No.'s are indicated in brackets at the end of the descriptions. Sizes given in descriptions are approximate and should be taken from the detail drawings referred to above in conjunction with metalwork Index and fabrication notes drawing No 1518-420			
CD	Fence type MW45 size 14000mm Long x 3000mm High with 7no posts and single gate (gate elsewhere measured) as drawing 1518-441	No	1
CE	Fence type MW46 size 8600mm Long x 2750mm High with 8no posts and single gate (gate elsewhere measured) as drawing 1518-442	No	1
CF	Fence type MW47 size 7100mm Long x 2750mm High with 6no posts as drawing 1518-443	No	1
Carried to Collection			
Bill 13 Metalwork			

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

CG	Fence type MW48 size 8100mm Long x 2750mm High with 6no posts and single gate (gate elsewhere measured) as drawing 1518-444	No	1		
CH	Fence type MW49 size 24550mm Long x 2850mm High with 11no posts and single gate (gate elsewhere measured) as drawing 1518-445	No	1		
CJ	Fence type MW50 size 16379mm Long x 3000mm High with 11no posts, single and double gates (gates elsewhere measured) as drawing 1518-446	No	1		
CK	Fence type MW51 size 13200mm Long x 3000mm High with 7no posts and single (gate elsewhere measured) as drawing 1518-447 <u>ClearVu or similar approved hot dipped galvanized MFB coated gate with high density mesh infill panel of 3mm diameter high tensile wires with aperture size of 12.7mm x 76.2mm centre including frame to fit within given dimension</u>	No	1		
CL	Type A single gate size 1000 x 2200mm high	No	4		
CM	Type B double swing gate size 2400 x 2200mm high	No	1		
CN	Type C single gate size 900 x 2200mm high	No	3		
CP	Type D double swing gate size 1500 x 2200mm high	No	1		
CQ	Type F single swing gate size 1200 x 2200mm high <u>Powder coated Trellidor Trojan Classic or equal and approved retractable gate</u>	No	2		
CR	Type E single gate size 1000 x 2100mm high <u>STAINLESS STEEL BUGLAR BARS</u>	No	4		
Carried to Collection					R
Bill 13 Metalwork					

	<u>Powder coated Trellidor Clearguard or equal and approved casement window consisting of 89 x 23 box section outer frame, stainless steel woven mesh screen in 42 x 33mm casement framing with and including locking with cylinder deadlatch, escutcheon at maximum 600mm centres and 100mm sinkless stainless steel hinges</u>				
CS	Security mesh for Type B window size 1800 x 850mm high	No	1		
CT	Security mesh for Type C window size 600 x 600mm high	No	26		
CU	Security mesh for Type E window size 600 x 600mm high	No	5		
CV	Security mesh for Type i window size 2400 x 2295mm high	No	2		
CW	Security mesh for Type J window size 800 x 2295mm high	No	27		
CX	Security mesh for Type K window size 1500 x 2295mm high	No	2		
CY	Security mesh for Type L window size 2400 x 1595mm high	No	2		
CZ	Security mesh for Type G window size 7235 x 900mm high	No	1		
	<u>GALVANIZED STEEL BALUSTRADING AND HANDRAILING</u>				
	<u>1000mm High balustrade comprising 50 x 15mm flat bar welded to 140 x 100 x 12mm base plates and 100 x 100 x 12mm end plates, 50 x 16 flat bar handrail with and including 12mm round bar rails at 100mm centres</u>				
DA	Type MW01 Balustrade (drawing 1518-421)	m	43		
DB	Type MW02 ditto	m	4		
DC	Type MW03 ditto	m	4		
	Carried to Collection			R	
	Bill 13 Metalwork				

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

DD	Type MW34, MW35 & MW36 ditto	m	28
DE	Type MW38 ditto	m	2
	<u>Galvanized mild steel handrail</u>		
DF	50 x 16mm Flat bar handrail with 12mm round bar lugs 25mm long once bent and epoxied 80mm deep into brick wall at maximum 900mm centres and 200mm from ends of handrail with and including 50 x 2.5mm polished steel cover plate wall fixing (drawing 1518-432)	m	14
DG	Extra 50mm Diameter handrail for bends	No	4
DH	Extra 50mm Diameter handrail for ends	No	6
	<u>STAINLESS STEEL BALUSTRADING AND HANDRAILING</u>		
	<u>Stainless steel handrail</u>		
DJ	50mm Diameter x 1.6 gauge stainless steel tube welded to and including 12mm round bar stainless steel lugs in 250mm length once bent and epoxied into brickwork or concrete wall 80mm deep at maximum 900mm centres and 200mm centres from ends of handrail. covered with 50 x 2.5mm polished stainless steel cover plate over wall fixing (drawing No's 1518-422, 423, 424, 425, 427, 428, 429, 430, 431 and 432)	m	184
DK	Extra 50mm Diameter handrail for bends	No	75
DL	Extra 50mm Diameter handrail for ends	No	32
	<u>1000mm High stainless steel balustrade comprising 40 x 1.6 gauge ss tube handrail welded to 12mm fixing lug fixed to balustrade with 100 x 50 x 4mm stainless steel plate, 50 x 15mm flat bar balustrade post welded to 140 x 100 x 12mm base plates and 100 x 100 x 12mm end plates, 50 x 16 flat bar handrail with and including 12mm round bar rails at 100mm centres</u>		
DM	Type MW09 Balustrade (drawing 1518-425)	m	13
DN	Type MW17 Balustrade (drawing 1518-427)	m	2
	Carried to Collection		
	Bill 13 Metalwork		

R

DP	Type MW33 Balustrade (drawing 1518-430)	m	15		
DQ	Type MW26 and 39 Balustrade (drawing 1518-429)	m	8		
<u>SUNDRY GALVANISED STEELWORK</u>					
<u>Note: For CPAP purposes workgroup 134 to apply</u>					
<u>Gratings, covers, etc</u>					
DR	80 x 80 x 5mm Angle section framing with 25 x 5 x 100mm fishplate lugs welded on at 600mm centres including embedding in concrete	m	7		
DS	120 x 60 x 3,0mm Hollow rectangular section welded to angle iron for support of chequered plates	m	7		
DT	15mm Chequered plate duct covers in approximately 300mm widths and suitable lengths laid loose in frames	m2	1		
Carried to Collection					
Bill 13 Metalwork				R	

PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD

Item			Quantity	Rate	Amount
<u>SECTION 2</u>					
<u>BILL NO. 14</u>					
<u>PLASTERING</u>					
<u>Note: For CPAP purposes workgroup 142 to apply</u>					
<u>PREAMBLES</u>					
For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009					
<u>SCREEDS</u>					
<u>Screeds wood floated on concrete:</u>					
A	LI 30mm Thick on floors and landings	m2	4 272		
B	LI Average 80mm thick on slab to falls	m2	484		
<u>Prime, and apply 5mm thick self levelling screed in 30Mpa strength to receive vinyl sheeting</u>					
C	LI On floors	m2	2 559		
Carried to Collection					R
Bill 14 Plastering					

Testing of sand/cement screeds

Testing to be done by an accredited independent testing specialist, or by the provision of independently certified test data to demonstrate compliance with the specification as set out below

Testing to include both light tap and heavy weight impact using a 4kg mass in compliance with the BRE screed tester requirements. Maximum indentation not to exceed 3mm

Alternative substrate testing methods may be put forward for consideration and acceptance by the Principal Agent. All test results to be provided in Microsoft Excel format with unique numbers and the positions of tests referenced and indicated on a floor plan (floor plan to be provided by Principal Agent) In all instances of results failing to comply as determined by the Principal Agent, addition tests to prove final compliance will be for the account of the contractor

- D Carry out impact tests to establish the soundness of all screeded substrate (total floor area / 4)
- E Allow for a test mix and sending to an approved Laboratory for screed mix and 2 x 2m sample panels

Item

Item

GRANOLITHIC

Granolithic screed of cement, sand and crushed rock aggregate in a 1:1:2 ratio bonded to hardened concrete slab

- F LI 40mm Thick on floors and landings m2 2 026

INTERNAL PLASTER

Cement plaster rendering coat with gypsum skim plaster finishing coat, on brickwork

- G LI On walls m2 8 736
- H LI On narrow widths m2 586

Carried to Collection

R

Bill 14
Plastering

	<u>Cement plaster rendering coat with gypsum skim plaster finishing coat, on concrete</u>			
J	LI On ceilings	m2	4 217	
	<u>Plaster of vermiculite and gypsum mixed in a V : G ratio of 2 : 1 (by volume) minimum 12mm thick applied over metal lathing (lathing elsewhere measured) rendering coat with gypsum skim plaster finishing coat, on brickwork</u>			
K	LI On walls	m2	3 833	
L	LI On narrow widths	m2	210	
	<u>Mentlath 213 or equal and approved expanded metal lathing fixed to walls with 4mm diameter metal pins at least 5 times per m2 of roll</u>			
M	LI On walls	m2	3 833	
N	LI On narrow widths	m2	210	
Carried to Collection				R
Bill 14 Plastering				

Section 2

Bill 14

Plastering

COLLECTION

Total from page

Total from page

Total from page

Page

Amount

2/127

2/128

2/129

Carried to Summary of Section 2

R

Bill 14
Plastering

Item		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>BILL NO. 15</u></p> <p><u>TILING</u></p> <p><u>Note: For CPAP purposes workgroup 144 to apply</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>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</p>			
	<p><u>WALL TILING</u></p> <p><u>200 x 200 x 8.5mm 1st Grade Matt White ceramic tiles code UTB351193 fixed to walls with TAL professional tile adhesive with 2mm wide joints and grouted with TAL wall and floor grout colour white mixed with TAL bond all applied strictly in accordance with manufacturer's instructions</u></p>			
A	<p>LI On walls</p> <p><u>200 x 200 x 5mm Thick Johnson or similar approved white glazed ceramic tiles fixed to walls with TAL wall grout mixed with TAL BOND for wall tile joints, applied strictly in accordance with manufacturer's instructions</u></p>	m2	726	
B	<p>LI On splashbacks</p>	m2	44	
	Carried to Collection			
	Bill 15			
	Tiling			
			R	

FLOOR TILING

600 x 600mm Union, Durotek full bodied, unglazed, rectified porcelain tiles with anti-Slip resistance R10, per DIN 51130. Laid with continuous joints in TAL Goldstar 6 rapid setting adhesive with TAL bond on 1:3 cement screed (screed elsewhere measured) and tile joints to be neatly flush pointed with pigmented Tal tile grout, all applied strictly in accordance with manufacturer's instructions. (Colour Grey, code 1PAVGRACIN600)

C	LI On floors and landings	m2	680
D	LI Skirting 100mm high	m	432

SUNDRIES

Aluminium M-Trims

E	ASE 080 M-Trim (tile splash back)	m	74
F	ASE 090 M-Trim	m	525

1,6mm Thick Grade 304 Stainless steel trim

G	100 x 100mm Corner protector	m	42
H	M-Trim SMJ120 12mm stainless steel movement joint	m	50
J	M-Trim PCJ100 10mm PVC perimeter movement joint	m	30
K	M-Trim STICP120 Grade 430 Stainless steel with brushed finish to suit 10-11mm depth tiles	m	55

Carried to Collection

Bill 15
Tiling

R

Section 2

Bill 15

Tiling

COLLECTION

Total from page

Total from page

Page

Amount

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Carried to Summary of Section 2

Bill 15
Tiling

R

<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<p><u>SECTION 2</u></p> <p><u>BILL NO. 16</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>Note: For CPAP purposes workgroup 148 to apply unless otherwise stated</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops 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>			
Carried to Collection		R	
Bill 16 Plumbing and Drainage			

Sealing of edges

Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone

uPVC pipes and fittings

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings

uPVC pressure pipes and fittings

Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

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

High density polyethylene (HDPE) pipes and fittings

Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings

Copper pipes

Pipes shall be hard drawn and half-hard "Maksal" 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-siphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016

Carried to Collection

Bill 16
Plumbing and Drainage

R

Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition

Reducing fittings

Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained

Fixing of pipes

Pipe supports shall be provided with rubber inserts

Pipe supports in basement shall be stainless steel (including straps, hanger, rods, bolts, nuts and screws)

Paper wrapping to pipes

Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings

Disinfection of water pipework

Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)

Carried to Collection

Bill 16
Plumbing and Drainage

R

"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 overlaps

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including 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

Laying, backfilling, bedding, etc of pipes

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

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

Carried to Collection

Bill 16
Plumbing and Drainage

R

General

Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately)

Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends

Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 90% Mod AASHTO density and disposal of surplus material on site

Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)

Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)

As-built drawings

Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere)

Prices

All prices for equipment shall be for supply and final fixing in place

RAINWATER DISPOSAL

Carried to Collection

Bill 16
Plumbing and Drainage

R

Gutterfast or equal and approved G4 Colortech seamless aluminium gutter including brackets for fixing to sheet metal roofing and including leaf guard (colour Marble White)

A	150mm Gutter	m	41		
B	250 x 250mm Gutter	m	162		
C	Stop ends to 150mm gutters	No	10		
D	Stop ends to 250 x 250mm gutters	No	20		
E	250mm Wide x 250mm deep valley gutter with 100mm flange onto each purlin	m	16		
F	Rainwater header boxes with 160mm diameter outlet	No	4		
G	170mm PVC sleeve cast through 250mm thick upstand beam	No	4		
<u>PVC downpipes</u>					
H	82mm Pipe fixed to walls with straps at 900mm centres using nail plugs and riveted and silicone sealed to gutter outlet	m	328		
J	Extra over 82mm rainwater pipe for eaves offset	No	41		
K	Extra over for 82mm pipe for bend	No	82		
L	Ditto for shoe	No	41		
M	PVA paint on PVC downpipes	m	41		
N	Sleeve for 82mm pipe not exceeding 250mm long	No	8		
P	Sleeve for 82mm pipe not exceeding 300mm long	No	6		
<u>Fullbore flat type Saint Gobain or equal and approved cast iron outlets</u>					
Q	75mm Vertical outlet	No	21		

Carried to Collection

R

Bill 16
Plumbing and Drainage

[illegible]

	<u>"Franke" or similar approved, stainless steel</u>				
Y	316mm x 425mm x 241mm Model SBE back entry inlet barron bowl urinal with and including 40mm waste outlet with a pressed perforated stainless steel grid and a chrome plated button spreader with a 15mm thick mounted plate with two key hole slots for mounting the unit to the wall with and including fixing bolts (code 2540055)	No	3		
Z	360mm x 700mm x 350mm HDTX594 Wall-mounted vandal proof WC pan with a shroud with corner mounting gussets and 10mm nuts to be supplied with and including galvanised mild steel threaded roads for securing the pan through the wall. Compliant with SABS 1733:1998 and SABS 497:1991 WC pan to flush with 4 and 6 litres of water. Pan to withstand point load of 400kg as per international standards code 356116	No	8		
AA	360mm x 550mm x 350mm CMPX592 Wall-mounted vandal proof WC pan with a shroud with corner mounting gussets and 10mm nuts and to be supplied with and including galvanised mild steel threaded roads for securing the pan through the wall. Compliant with SABS 1733:1998 and SABS 497:1991 WC pan to flush with 4 and 6 litres of water. Pan to withstand point load of 400kg as per international standards code 356109	No	17		
AB	360mm x 550mm x 410mm HDTX597 Wall & floor mounted vandal proof WC pan with a pressed flushing rim and integral "P" trap with a 102mm outlet pipe and a 60mm back entry inlet pipe to suit a rubber flush inlet sealing bung. Unit to include a shroud, with internal flanges for securing the pan through the wall and into the floor with anchor bolts. Compliant with SABS 1733:1998 and SABS 497:1991 WC pan to flush with 4 and 6 litres of water. Pan to withstand point load of 400kg as per international standards code 356082	No	2		
Carried to Collection					R
Bill 16 Plumbing and Drainage					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AC	420 x 340 x 185mm deep Model "Oval A" wash hand basin manufactured from Grade 304 (18/10) stainless steel, 1,2mm gauge. Unit includes a one piece pressed bowl 360 x 280 x 130mm deep with 40mm waste outlet and a 50mm splash back and 100mm radiused apron fixed to wall with and including 4 x 6mm anchor bolts (Product Code 2520029)	No	1		
AD	390 x 322 x 600mm Surround wall mounted basin with 150mm splash back manufactured from Grade 304 (18/10) stainless steel 1,2mm gauge in a satin finish. The unit has a pressed bowl 360 x 280 x 140mm deep and a polished outer casing with a 40 degree angled base with an inspection panel with security screws. Unit complete with a 40mm perforated waste outlet, Walcro 155UWS metering basin valve and Walcro BBD/15 basin spout. Basin supplied with four 8 x 250mm long galvanised mild steel threaded rods for fixing through wall (Product Code 2520023)	No	34		
AE	900mm x 535mm x 166mm Trendline SEB single bowl sink (Product Code 711)	No	13		
AF	1200mm x 535mm x 166mm Trendline SEB double bowl sink (Product Code 712)	No	2		
AG	EC Combination Bedpan & wash-up sink, left hand bowl (Product Code 2630001)	No	4		
AH	LDS Drip sink with grid & stainless steel falcon brackets (Product Code 2630026)	No	3		
AJ	CH Slop hopper with 100mm splash back & stainless steel grid (Product Code 2630035)	No	4		
<u>WASTE UNIONS, ETC</u>					
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

<u>"Chrome"</u>					
AK	Unslotted basin waste with and including flanged back nut and washer, and plug, 62mm flange, 77mm long shank and 1 1/4 BSP male iron connection end code 308/N	No	83		
AL	Sink waste with and including flanged back nut and washer, plug with stirrup, 86mm diameter flange, 93mm long shank and 1 1/2 BSP male iron connection end code 311/N	No	20		
<u>"Chrome plated"</u>					
AM	Slotted basin waste with and including flanged back nut and washer, and plug, 62mm flange, 77mm long shank and 1 1/4 BSP male iron connection end code 303/N	No	33		
<u>"Franke" or similar approved</u>					
AN	"Spazi" F/1 single bowl plumbing kit (Product Code 112.0312.025)	No	13		
AP	"Spazi" F/2 double bowl plumbing kit (Product Code 112.0166.438)	No	2		
<u>TRAPS, ETC</u>					
<u>"Chrome"</u>					
AQ	Cobra Universal bottle trap with adjustable telescopic waste connection pipe and 1 1/4BSP female, 1 1/4 BSP male iron outlet connection, brass body, with and including waste adaptor 12 1/4 to 1 1/2 BSP & outlet adaptors 1 1/4 & 1 1/2, maximum flow rate +/- 37.5l/min to trap alone, with cobra pop-up waste, the flow rate is +/- 35.5l/min code 340/N	No	125		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

<u>"Herbish" or equal and approved</u>					
AR	150 x 150 HB125 square flange floor drain with and including standard stainless steel screw down grating lid, bottom outlet and 110mm stainless steel drain body diameter	No	43		
<u>TAPS, VALVES, ETC</u>					
<u>"Cobra" or similar approved</u>					
AS	Medical elbow-action wall-type mixer with 1/4" turn ceramic disc, 1/2" BSP male inlet, aerated swan-neck swivel outlet, fixed centre bent inlet connections and hook for swivel outlet. SANS 226 Type 2 (Product Code COB-515/055-210-970LH)	No	6		
AT	Heavy pattern medical elbow-action , square type pillar tap with 1/4" turn ceramic disc, blue indice, 1/2 BSP male inlet, and flanged backnut idea for medical, kitchen and industrial installations with and including 4.5l/min flow restrictor SANS 226 type2 (Product Code COB-515/505-21B/HP)	No	10		
AU	Heavy pattern medical elbow-action wall-type mixer with 1/4" turn ceramic disc, 1/2" BSP male inlet, aerated swan-neck swivel outlet, fixed centre bent inlet connections swivel outlet comes with 4.5l/min flow restrictor SANS 226 Type 2 (Product Code COB-515/055-21/HP)	No	49		
AV	Demand pillar tap with and including push button, raised nose, hot and cold indices, 1/2 BSP male inlet, and flanged backnut, an excellent water saving product easily installed in place of conventional taps. SANS 1808-66	No	23		
AW	Nile pillar type sink mixer single level floe rate restricted to 6ltrs/min G1/2 female connection ends Jaswic (Product Code NL-970)	No	7		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

AX	Nile sink mixer deck type (Product Code SKU1DNI-0GT0426)	No	2		
AY	"Metsi" Bibtap (Product Code SKU MI-206-15)	No	3		
AZ	832/850F Angle stop valve with and including 350mm braided flexi hose (Product Code 007636)	No	10		
BA	232-10/N Angle regulating stop valve with durable, DZR body, flow regulating spindle type headpart G 1/2 X G1/2 BSP connections with and including 350mm SABS braided flexi hose (Product Code 15 x 350mm)	No	94		
BB	Mechanic pre-mixing valve to manually regulate water temperature Product Code SKU:EL-X60)	No	10		
BC	115mm x 50mm Exposed flush valve including 3/4 control inlet, wall flange, additional toilet piston screw and non-hold open feature code COB-FJ6-000/N SANS 1240, JASWIC-listed	No	6		
BD	Offset urinal flush pipe 215mm x 15mm outlet with 27mm offset with and including inlet adaptor for urinal flush valve code COB-FJT5-5	No	6		
BE	Concealed urinal flush valve with and including non-hold open feature, econoflush with Ball O Stop control inlet, palm press push button assembly with push rod and captive linkage and straight urinal tail pipe. 3/4BSP female iron connection end FJ8-102N	No	9		
BF	Flush master exposed back inlet flush valve for slop hopper (product code SKU:FFUUSTFM-0GT01)	No	4		
	<u>"Walcro" or similar approved, stainless steel</u>				
BG	Vandal resistant shower head with and including inlet connection 15mm BSP female, flow range 6L/min to 9L/min, minimum pressure 1 bar and internal removable for cleaning strainer (Product Code CIRS-V2)	No	10		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

BH	Vandal resistant metered shower valve with and including stainless steel sleeve around shower button (Product Code 155S)	No	10	
	<u>"Cobra" or similar approved</u>			
BJ	Concealed prison type toilet valve with and including back entry toilet flush valve, prison secure push button flush activation code SKU:KF3-420 and connector	No	2	
BK	Concealed prison type stainless steel toilet valve with and including back entry toilet flush valve, prison secure push button flush activation code SKU:KF3-420 and connector	No	18	
BL	Concealed prison type stainless steel toilet valve with and including back entry non-hold open feature with integral vacuum breaker, and Ball O stop control inlet, straight flush pipe with elbow, 3/4BSP female iron connection end (product code FJ4-203/N)	No	11	
BM	Concealed prison type stainless steel toilet valve with and including back entry, institutional version, non-hold open feature with integral vacuum breaker, and Ball O stop control inlet, capillary reducing coupling outlet for 287mm flush pipes, through the wall, vandal resistant guide tube, push rod and captive linkage, push button assembly and rubber pan connector, 3/4BSP female iron connection end and CP push button assembly (product code FJ4-203PR/N)	No	25	
	<u>ELECTRIC WATER HEATERS</u>			
BN	Franke White epoxy 5 litre zip hydroboil -25-30 cups	No	9	
	<u>SANITARY PLUMBING</u>			
	Carried to Collection			R
	Bill 16 Plumbing and Drainage			

	<u>Class 6 uPVC pipes</u>				
BP	25mm Pipe in walls or below soffit of slab	m	136		
	<u>Class 34 uPVC pipes</u>				
BQ	50mm Pipes in walls or below soffit of slab	m	726		
BR	50mm Vent pipe	m	18		
BS	63mm Pipe	m	19		
BT	75mm Pipe	m	40		
BU	75mm Vent pipe	m	21		
BV	90mm Vent pipe	m	21		
BW	110mm Pipe	m	440		
BX	110mm Vent pipe	m	200		
BY	160mm Pipe	m	55		
BZ	160mm Vent pipe	m	6		
CA	LI 110mm Pipe laid in ground including trenching and backfilling	m	38		
CB	LI 160mm Pipe laid in ground ditto	m	81		
CC	LI 110 mm Pipes vertically or ramped to cleaning eyes etc.	m	30		
	<u>Extra over uPVC pipes for fittings</u>				
CD	50mm Bend	No	302		
CE	50mm Junction	No	111		
CF	63mm Bend	No	6		
CG	63mm Junction	No	6		
CH	75mm Bend	No	8		
	Carried to Collection			R	
	Bill 16 Plumbing and Drainage				

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

CJ	75mm Junction	No	4		
CK	75mm Vent cowl	No	2		
CL	90mm Bend	No	6		
CM	90mm Junction	No	4		
CN	90mm Vent cowl	No	2		
CP	110mm Bend	No	68		
CQ	110mm Junction	No	49		
CR	110mm "GI Two-way" vent valve	No	4		
CS	110mm Vent cowl	No	15		
CT	110mm Rodding eye	No	15		
CU	160mm Bend	No	9		
CV	160mm Junction	No	4		
CW	160mm Vent cowl	No	4		
CX	Turn dish with P-trap	No	1		
CY	Grundfoss or WILO or equal and approved submersible pump to lift sump with integrated controls, 1L/s @ 10m head, thermal overload protection and run-dry protection, including two ball valves and one non-return valve and a 12 month guarantee and maintenance	No	1		
<u>WATER SUPPLY</u>					
CZ	Join into existing 50mm uPVC municipal water main	No	1		
DA	Locate, cut and blank off in two positions, and remove existing 76mm fire main	m	10		
DB	Locate and connect into existing 40mm HDPE water pipe	No	1		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

DC	Locate and connect into existing 50mm HDPE water pipe	No	1		
	<u>Woltmann-Type, Elster Kent Helix or equal and approved cast iron turbine water meter including flanged joints to HDPE piping</u>				
DD	100mm In-line water meter	No	1		
	<u>HDPE Class 12,5 pipes</u>				
DE	50mm Pipes laid in and including trenches and backfilling	m	45		
DF	40mm Pipe ditto	m	20		
	<u>Extra over HDPE Class 12,5 pipes for fittings</u>				
DG	40mm Tee	No	2		
DH	50mm Tee	No	1		
DJ	40mm Bend	No	4		
DK	50mm Bend	No	3		
DL	110mm 45 Degree bend	No	5		
	<u>uPVC Class 16 pipes</u>				
DM	110mm Pipes laid in and including trenches and backfilling	m	342		
	<u>Extra over uPVC Class 16 pipes for fittings</u>				
DN	110mm Tee	No	2		
DP	110mm 90 Degree bend	No	9		
DQ	110mm 45 Degree bend	No	4		
	<u>Valves, etc</u>				
DR	110mm Isolation valve	No	6		
	Carried to Collection				
	Bill 16			R	
	Plumbing and Drainage				

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

DS	50mm Isolation valve	No	1		
DT	40mm Isolation valve	No	2		
DU	110mm Non-return valve	No	1		
DV	110mm Strainer	No	1		
DW	100mm Two-port booster with 65mm brass booster connectors and pressure gauge	No	1		
DX	Fire hydrant on and including 340 x 340 x 800mm high tapered concrete base painted with 50mm wide red and white stripes on all sides and supplied with six hydrant keys and two snap-on fire hoses	No	3		
DY	75mm Pipe 1750mm long both ends flanged with Puddle flange	No	1		
	<u>Valve chamber</u>				
DZ	Excavate for and build valve chamber of eight circular precast concrete sections with 230mm internal diameter, laid with dry joints and Durban Corporation Pattern No 5 or equal and approved hinged valve box cover aligned in the direction of flow of the pipe and painted with two coats yellow road marking paint	No	6		
EA	Excavate for and build meter chamber with 100mm concrete bottom and one brick sides of best quality engineering bricks plastered internally and 100mm thick in-situ concrete cover slab and including Type 9B medium duty cast iron manhole cover and frame and four step irons built into brickwork and sump size 300 x 500 x 300mm deep and concrete pedestal under pipe. Size internally 1850 x 920 x approximately 1000mm deep	No	1		
EB	LI Unreinforced concrete in thrust blocks in trenches at bends, tees, etc, including extra excavation, formwork, etc	m3	3		
EC	Precast concrete "IE" maker block size 300 x 300 x 50mm	No	5		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

<u>INTERNAL WATER RETICULATION</u>					
<u>HDPE pipe laid in and including trenches and backfilling</u>					
ED	LI 110mm Pipe not exceeding 1m deep	m	178		
<u>HDPE pipe</u>					
EE	32mm Pipe in ceilings or chased to walls	m	10		
<u>Extra over HDPE pipes for fittings</u>					
EF	110mm Bend	No	11		
EG	110mm Tee	No	5		
EH	110mm Reducer to 100mm copper	No	4		
EJ	32mm Bend	No	2		
EK	100/32mm Tee	No	4		
EL	32/25mm Reducer	No	4		
<u>uPVC pipes laid in and including trenches and backfilling</u>					
EM	LI 50mm Pipes	m	12		
<u>Extra over uPVC pipes for fittings</u>					
EN	50mm Bend	No	1		
EP	50mm Tee	No	1		
EQ	50mm Access bend	No	1		
<u>Class 460/2 copper pipes in ceilings or chased to walls and wrapped in brown paper/Denso tape</u>					
ER	15mm Pipe in ceilings or chased to walls	m	1 580		
ES	22mm Pipe in ceilings or chased to walls	m	595		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

ET	28mm Pipe in ceilings or chased to walls	m	663
EU	28mm Pipe in ceilings or chased to walls	m	55
EV	35mm Pipe in ceilings or chased to walls	m	464
EW	42mm Ditto.	m	82
EX	54mm Pipe in ceilings or chased to walls	m	72
EY	67mm Ditto.	m	20
EZ	76mm Ditto.	m	121
FA	108mm Ditto.	m	200
FB	108mm Ditto	m	2
<u>Extra over copper pipes for capillary fittings:</u>			
FC	Extra over 15mm pipe for fittings	No	527
FD	Extra over 22mm pipe for fittings	No	182
FE	Extra over 28mm pipe for fittings	No	271
FF	Extra over 35mm pipe for fittings	No	155
FG	42mm Bend	No	27
FH	42mm Tee	No	16
FJ	42mm Adaptor	No	2
FK	42mm Reducer	No	8
FL	54mm Bend	No	24
FM	54mm Tee	No	14
FN	54mm Adaptor	No	7
FP	54mm Reducer	No	4
Carried to Collection			
Bill 16 Plumbing and Drainage			

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

FQ	67mm Bend	No	7
FR	67mm Tee	No	4
FS	67mm Adaptor	No	2
FT	67mm Reducer	No	2
FU	76mm Bend	No	40
FV	76mm Tee	No	24
FW	76mm Adaptor	No	20
FX	76 to 28mm Reducer	No	10
FY	108mm Bend	No	25
FZ	108mm Tee	No	8
GA	108mm Adaptor	No	7
GB	22mm Gate valve	No	14
GC	28mm Gate valve	No	14
GD	35mm Gate valve	No	3
GE	42mm Gate valve	No	2
GF	54mm Gate valve	No	9
GG	67mm Gate valve	No	1
GH	76mm Gate valve	No	3
GJ	22mm Pressure reducing valve	No	4
GK	28mm Pressure reducing valve	No	4
GL	35mm Pressure reducing valve	No	5
GM	42mm Pressure reducing valve	No	2
Carried to Collection			
Bill 16 Plumbing and Drainage			

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

GN	54mm Pressure reducing valve	No	5
GP	67mm Pressure reducing valve	No	1
GQ	76mm Pressure reducing valve	No	3
GR	108mm Pressure reducing valve	No	1
GS	22mm Non-return valve	No	3
GT	28mm Non-return valve	No	2
GU	35mm Non-return valve	No	5
GV	42mm Non-return valve	No	2
GW	54mm Non-return valve	No	9
GX	67mm Non-return valve	No	1
GY	76mm Non-return valve	No	2
GZ	15mm Ball-O-Stop valve	No	294
HA	22mm Ball-O-Stop valve	No	200
<u>Extra over copper pipes for brass compression fittings:</u>			
HB	28mm Fittings.	No	50
HC	35mm Fittings	No	40
HD	76mm Bend	No	4
HE	76mm Tee	No	4
HF	76mm Adaptor	No	2
HG	80 x 25mm Tee	No	12
HH	108mm Reducer	No	2
HJ	28mm Bend	No	40
Carried to Collection			
Bill 16 Plumbing and Drainage			

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

HK	108mm Bend	No	2	
HL	108 x 28mm Tee	No	2	
HM	28mm Stop valve	No	20	
<u>Class 0 copper pipes:</u>				
HN	108mm Pipe in ground	m	2	
HP	54mm Pipe in ceilings or chased to walls	m	64	
<u>Extra over copper pipes for brass compression fittings:</u>				
HQ	54mm Bend	No	10	
HR	54mm Tee	No	6	
HS	54mm Thermostatic balancing valve	No	1	
HT	54mm Ball valve	No	4	
HU	54mm Non return valve	No	4	
HV	108mm Bend	No	3	
HW	108mm Reducer	No	1	
<u>"Thermaflex" pipe insulation</u>				
HX	Insulation to 15mm pipe and couplings	m	569	
HY	Insulation to 22mm pipe and couplings	m	307	
HZ	Insulation to 28mm pipe and couplings	m	228	
JA	Insulation to 35mm pipe and couplings	m	219	
JB	Insulation to 42mm pipe and couplings	m	7	
JC	Insulation to 54mm pipe and couplings	m	34	
JD	Insulation to 75mm pipe and couplings	m	12	
Carried to Collection				R
Bill 16 Plumbing and Drainage				

FIRE APPLIANCES ETC.

'Chubb'

JE	'Everyway' hose reel to SABS 543 complete with 30m rubber hose, chromium plated stopcock, shut-off nozzle and wall bracket.	No	20
JF	9kg Carbon dioxide fire extinguisher to SABS 1567.	No	40
JG	Fire hydrant	No	10

TANKS ETC

Hot water generating plant

To be read in conjunction with the drawing and specification documents

JH	Hot water 2000 litre storage tank to BS 1564 complete with connections and dial temperature gauge, internal Sigmarite corrosion protection, two coats external red oxide primer, 50mm mineralwool insulation, polished aluminium cladding and specification plate	No	2
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Cold water storage tanks

JJ	6100 x 3660 x 2440mm High sectional steel tank (47 000 litres) manufactured from 6mm thick mild steel plates galvanised after manufacture, complete with necessary braces, bolts, nuts, washers, jointing compound, float valve and 450 x 450mm manhole with outlet, inlet and overflow connections and connection stubs to SABS 1564	No	1
JK	54mm Ball valve	No	5
JL	32mm Ball valve	No	13
JM	20mm Ball valve	No	20
JN	54mm Pressure regulating valves	No	1
JP	32mm Regulating valve	No	1

Carried to Collection

Bill 16
Plumbing and Drainage

R

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

JQ	54mm Non-return valve	No	1		
JR	32mm Non-return valve	No	5		
JS	25mm Non-return valve	No	6		
JT	20mm Non-return valve	No	3		
JU	32mm Thermostatic hot water mixing valve - Cobra Mastertherm or equal and approved	No	4		
JV	32mm Strainer with stainless steel sieve	No	4		
JW	20mm Vacuum breaker	No	2		
JX	20mm Temperature / pressure (TP) safety valve	No	2		
JY	Heat pump circulating pump - 1,4L/s at 5m head	No	2		
JZ	Hot water return pump - 40L/min at 6m head	No	3		
KA	75mm Pressure gauge	No	2		
KB	22kW Output aircool Heat Pump complete with controls and drip tray, raised on and including paver blocks	No	2		
KC	50mm Infill Bermad valve	No	3		
KD	Dual variable speed vertical multi stage Booster Pump Set for potable water supply on common base with control panel, isolating valves, check valves run dry protection and float switches - 1,8 L/s at 3,5 bars (each pump)	No	2		
KE	Dual constant speed vertical multi stage Fire Booster Pump Set for potable water supply on common base with control panel, isolating valves, check valves run dry protection and float switches - 2,1 L/s at 4,0 bars (each pump)	No	2		
Carried to Collection					R
Bill 16 Plumbing and Drainage					

	Maintain and service the entire plumbing system after practical handover including Hot Water Generating Plant, Control Panels, Circulating Pumps, Storage Tanks, Heat Pumps, Valves, etc			
KF	Provide Comprehensive 12 months Guarantee of the entire plumbing system after practical handover including Hot Water Generating Plant, Control Panels, Circulating Pumps, Storage Tanks, Heat Pumps, Valves, etc	mths	20	
KG	Minor service	mths	11	
KH	Major Final service at end of contract (including internal inspection of all hot water storage tanks, de-rust where necessary)	mths	1	
	<u>Grundfoss, Wilo or KSB or equal and approved vertical pumps with integrated controls provided complete including pressure sensor, motor control panel, pressure tank, gate valve and common galvanised steel base plate, two ball valves, one non-return valve, one strainer and one pressure gauge. Pumps to have 12 month guarantee and maintenance</u>			
KJ	Cold water vertical multi-stage domestic booster pump set dual on common base with VSD and thermal overload protection, run dry protection and auto lead/lag flip-flop - 3,5 L/s at 40m head (each pump)	No	1	
KK	Cold water vertical multi-stage domestic booster pump set dual on common base with VSD and thermal overload protection, run dry protection and auto lead/lag flip-flop - 1,5L/s at 40m head (each pump)	No	1	
KL	Dual fire booster pump set with constant speed and thermal overload protection, run dry protection and auto flip-flop - 0,75L/s at 45m head (each pump)	No	1	
	<u>THE FOLLOWING IN WATER STORAGE TANKS PLINTHS</u>			
	<u>Excavation in earth not exceeding 2 m deep</u>			
KM	LI Reducing levels under floors, paving, parking, etc	m3	101	
	Carried to Collection			R
	Bill 16 Plumbing and Drainage			

	<u>Compaction of surfaces</u>			
KN	LI Rip and re-compacting insitu material under floors etc including scarifying for a depth of 150mm, breaking down oversize material adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	135	
KP	Sides of trench and hole excavations not exceeding 1,5m deep	m2	86	
	<u>Extra over all excavations for carting away</u>			
KQ	LI Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	101	
	<u>Earth filling G2 material supplied by the contractor compacted to 98% Mod AASHTO density</u>			
KR	LI Under paving, in roadways, etc	m3	20	
	<u>Earth filling G5 material supplied by the contractor compacted to 95% Mod AASHTO density</u>			
KS	LI Under paving, in roadways, etc	m3	20	
	<u>Earth filling G7 of granular material supplied by the contractor compacted to 93% Mod AASHTO density</u>			
KT	LI Under paving, in roadways, etc	m3	20	
	<u>Soil insecticide</u>			
KU	LI Under floors, etc including forming and poisoning shallow furrows against foundation walls, etc and filling in furrows and ramming	m2	135	
	<u>25MPa / 19mm Reinforced concrete</u>			
KV	Base	m3	40	
KW	Plinths	m3	25	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
KX	LI Surface beds, slabs, etc to falls	m2	135	
Carried to Collection				R
Bill 16 Plumbing and Drainage				

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

LJ	250mm Pipe vertically	m	132
LK	LI 160mm Pipe not exceeding 1m deep including trenching and backfilling	m	128
LL	LI 250mm Pipe not exceeding 1m deep including trenching and backfilling	m	51
	<u>Extra over uPVC pipes for fittings</u>		
LM	110mm Bend	No	10
LN	110mm Junction	No	10
LP	160mm Bend	No	3
LQ	160mm Junction	No	3
	<u>100D Concrete pipes in and including trenches and backfilling with Class B bedding</u>		
LR	LI 300mm Pipe exceeding 1 and not exceeding 2m deep	m	199
LS	LI 675mm Pipe ditto	m	84
	<u>The following in catchpits, manholes, etc of 260mm thick concrete grade 25/26 base with Ref 395 mesh, 230 brick walls in NFX bricks cross bonded (english bond), 214mm thick concrete grade 25/26 reducer slab with 16,81kg of Y10 reinforcing, 230mm brick wall on top of reducer slab 478mm high and including excavations, part return and compacted to 95% Mod AASHTO and carting away, etc</u>		
LT	LI Stormwater manhole 1900 x 1450mm internally exceeding 1 and not exceeding 2m deep	No	2
LU	LI Ditto exceeding 1m and not exceeding 1,5m deep	No	10
LV	LI Ditto exceeding 1,5 and not exceeding 2,0m deep	No	16
LW	LI Ditto exceeding 2,0 and not exceeding 2,5m deep	No	1
LX	LI Ditto exceeding 2,5 and not exceeding 3,0m deep	No	1

Carried to Collection

Bill 16
Plumbing and Drainage

R

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

MS	30 x 30 x 3mm Angle welded together forming frame or support for Mentis grating with and including 20 x 5 x 100 long fish tail lug at +/- 500mm centres	m	657		
MT	250mm Wide heavy duty polymer grating or similar approved	m	31		
MU	510mm Wide heavy duty polymer grating or similar approved	m	298		
MV	Polysulphide sealant to 10 x 102mm in joint between concrete surfaces	m	657		
<u>The following in headwall</u>					
MW	LI Reduced levels under platform	m3	1		
MX	LI Compaction of ground surface under floors, etc including scarifying for a depth of 150 mm, breaking down oversize material, adding suitable material where necessary and compacting to 90 % Mod AASHTO density	m2	4		
MY	LI 20Mpa concrete in base slab and toe	m3	1		
MZ	LI Formwork to edge of toe	m2	1		
NA	LI Ref 193 mesh reinforcing	m2	4		
NB	LI 7MPa cement brick in headwall	m2	6		
NC	LI One coat external plaster on headwall	m2	12		
ND	LI Stonepitching	m2	2		
<u>Catch pit soak away</u>					
NE	Excavate in earth for soak away 6000 x 750 x 1800mm deep and line trench with 600uM polythene membrane and fill with rubble 1500mm deep and 160mm diameter uPVC pipe and fill top 300mm with soil	No	1		
<u>The following in attenuation tank</u>					
NF	LI Excavation not exceeding 2m deep	m3	210		
				R	
Carried to Collection					
Bill 16 Plumbing and Drainage					

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

NG	LI Earth filling G5 material supplied by the contractor compacted to 95% Mod AASHTO density	m3	21		
NH	LI Risk of collapse to sides of trench excavations not exceeding 1,5m deep	m2	152		
NJ	LI Compaction of ground surface under floors, etc including scarifying for a depth of 150 mm, breaking down oversize material, adding suitable material where necessary and compacting to 90 % Mod AASHTO density	m2	105		
NK	LI Soil insecticide to bottom and sides of trenches	m2	257		
NL	30Mpa concrete in bottom slab	m3	26		
NM	30Mpa concrete in walls	m3	29		
	30Mpa concrete in top slab	m3	26		
NP	Formwork to sides of walls	m2	152		
NQ	Formwork to soffit of slab	m2	105		
NR	High tensile and mild steel reinforcing in all diameters	t	32.82		
NS	Construction joint through 250mm thick concrete slab / walls with 300mm wide x 3mm thick galvanised waterstop with 250mm joint laps	m	50		
NT	Hypalam or equal and approved unreinforced Hypalon membrane 200mm wide with Hypalam 795 mastic adhesive and bond breaker tape fixed over construction joint	m	50		
NU	LI 230mm Wall in manhole	m2	7		
NV	LI Plaster to brick walls	m2	15		
NW	1130mm Diameter heavy-duty pre-cast concrete frame	No	3		
NX	500 x 500mm Heavy duty polymer concrete covers or equally approved	No	3		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

NY	Fibretek or equal and approved access ladder 450mm wide and 1750mm high of two GRP flat bar stringers and eight GRP rungs, bolted to wall with galvanised anchor bolts	No	1
	<u>LG Green (or equal and approved) surface water channels including all necessary excavations, filling and backfilling</u>		
NZ	250mm Half round pipe channel	m	111
PA	300mm Half round pipe channel	m	30
PB	Cutting into side of existing inspection chamber for and connecting 675mm pipe including inserting channel junction and making good concrete benching	No	1
PC	Ditto for and connecting 160mm pipe including inserting channel junction and making good concrete benching	No	1
PD	Ditto for and connecting 300mm pipe including inserting channel junction and making good concrete benching	No	1
	<u>SLEEVES</u>		
	<u>Plastic sleeves for pipes not exceeding 100mm diameter</u>		
PE	Sleeve not exceeding 250mm long	No	6
	<u>Plastic sleeves for pipes exceeding 100mm and not exceeding 200mm diameter</u>		
PF	Sleeve not exceeding 250mm long	No	11
	<u>HOLES ETC</u>		
	<u>Core drilling of hole for pipe not exceeding 50mm diameter</u>		
PG	300mm Reinforced concrete slab, beam, wall, etc	No	10
PH	250mm Reinforced concrete slab, beam, wall, etc	No	10
	Carried to Collection		
	Bill 16 Plumbing and Drainage		

[illegible]

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

PN	Locate, cut, blank off, disinfect and remove existing 110mm uPVC sewer pipe	m	134
PP	Locate, disinfect and remove existing sewer manholes exceeding 1 and not exceeding 2m deep	No	14
	<u>Vitrified clay gulleys</u>		
PQ	100mm Dished gulley not exceeding 1000mm deep	No	2
	<u>Class uPVC pipes laid in class B bedding</u>		
PR	LI 110 mm Pipes laid in and including trenches not exceeding 1 m deep	m	5
PS	LI Ditto exceeding 1 m and not exceeding 2 m deep	m	266
PT	Ditto exceeding 2m and not exceeding 3m deep	m	54
PU	LI 160mm Pipes laid in and including trenches exceeding 1 and not exceeding 2m deep	m	6
PV	160mm Pipes laid in and including trenches exceeding 2 and not exceeding 3m deep	m	140
	<u>Extra over uPVC pipes for fittings</u>		
PW	110mm Bend	No	5
PX	160mm Bend	No	5
PY	110mm Junction	No	5
PZ	110mm Double junction	No	5
QA	160mm Junction	No	5

Carried to Collection

R

Bill 16
Plumbing and Drainage

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<u>CONNECTIONS, ETC</u>					
QL	Allow the nett sum of R200 000.00 (Two Hundred Thousand Rand) for connections, deposits and contributions to be used as directed by the architect and deducted in part or in whole if not required		Item		200 000.00
<u>DUCTS FOR ELECTRICAL AND TELEPHONE CABLES</u>					
<u>uPVC pipes</u>					
QM	50mm Pipes vertically or ramped etc (no excavation)	m	5		
QN	LI 50mm Pipes laid in and including trenches not exceeding 1m deep	m	20		
QP	LI 110mm Pipes laid in and including trenches not exceeding 1m deep	m	20		
<u>Extra over uPVC pipes for</u>					
QQ	50mm Bend	No	5		
QR	110mm Bend	No	5		
QS	50mm Long radius bend	No	5		
QT	110mm Long radius bend	No	5		
<u>Inspection chamber (covers elsewhere)</u>					
QU	LI Draw box 300 x 300mm and not exceeding 500mm deep internally	No	3		
QV	LI Manhole 450 x 450mm and not exceeding 750mm deep internally	No	3		
<u>Gratings, covers, etc</u>					
QW	275 275 x 9kg Cast iron single seal manhole cover and frame	No	3		
QX	450 x 450 x 28kg Cast iron single seal manhole cover and frame	No	3		
Carried to Collection				R	
Bill 16 Plumbing and Drainage					

TANKS ETC

Cold water storage tanks

QY	4880 x 4880 x 4880mm High sectional tank (116 000 litres) manufactured from 6mm thick steel plates galvanised after manufacture, complete with necessary braces, bolts, nuts, washers, jointing compound, float valve and 450 x 450mm manhole with 2x outlets, inlet and overflow stubs to SABS 1564	No	1
QZ	2440 x 2440 x 2440mm High sectional tank (1450 litres) manufactured from 6mm thick steel plates galvanised after manufacture, complete with necessary braces, bolts, nuts, washers, jointing compound, float valve and 450 x 450mm manhole with 2 x outlets, inlet and overflow stubs to SABS 1564	No	1
<p><u>Grundfoss, Wilo or KSB or equal and approved vertical pumps with integrated controls provided complete including pressure sensor, motor control panel, pressure tank, gate valve and common galvanised steel base plate, two ball valves, one non-return valve, one strainer and one pressure gauge. Pumps to have 12 month guarantee and maintenance</u></p>			
RA	Dual constant speed vertical multi-stage fire hydrant booster pump on common base with control panel, isolating valves, check valves, run dry protection and float switches - 20/Ls at 4.5 bars per pump	No	1

Carried to Collection

R

Bill 16
Plumbing and Drainage

PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD

Section 2

Bill 16

Plumbing and Drainage

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Plumbing and Drainage

Section 2

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Plumbing and Drainage

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PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD

Item		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>BILL NO. 17</u></p> <p><u>GLAZING</u></p> <p><u>Note: For CPAP purposes workgroup 150 to apply</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Proprietary items or materials</u></p> <p>Proprietary items or materials where specified are to be of the brand specified - or other approved</p>			
	<p><u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u></p> <p><u>"Franke" or equal and approved</u></p>			
A	<p>CHRH401 400 x 300 x 1mm Stainless steel wall mounted mirror with an including reflective polished surface and concealed fixings reinforced with polystyrene plate steel screws and dowels (product code 2120077)</p>	No	106	
	Carried to Summary of Section 2			
	Bill 17 Glazing			
			R	

Item		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>BILL NO. 18</u></p> <p><u>PAINTWORK</u></p> <p><u>Note: For CPAP purposes workgroup 152 to apply</u></p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>The moisture levels need to be less than 8% on the BD2 scale of measure on the hygrometer before applying the primer</p> <p>Paintwork to carry a 7-year guarantee</p> <p>Paint supplier to vet the preparation and application process to ensure the guarantee</p>			
	<p><u>ON FLOATED PLASTER</u></p> <p><u>Prepare and apply one coat TRADE alkali resistant plaster primer and allow to dry overnight and apply two coats TRADE 100 low sheen to achieve a closed film and solid colour allowing 4 hours drying time between coats.</u></p>			
A	LI On internal walls	m2	4 495	
	<p><u>Prepare and apply one coat TRADE alkali resistant plaster primer and allow to dry overnight and apply two coats PEARLGLO water-based eggshell enamel to achieve a closed film and solid colour allowing 4 hours drying time between coats.</u></p>			
B	LI On internal walls	m2	7 363	
	Carried to Collection			R
	Bill 18			
	Paintwork			

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**4.5 - 5mm Smooth Flowcrete Peran PTS Epoxy and
or equal approved, installed by manufacturer's
approved applicator**

J	LI On concrete floors	m2	1 033		
K	LI Coved skirting	m	917		

Carried to Collection

Bill 18
Paintwork

R

Section 2

Bill 18

Paintwork

COLLECTION

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Bill 18
Paintwork

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<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<p><u>SECTION 2</u></p> <p><u>BILL NO. 19</u></p> <p><u>EXTERNAL WORKS</u></p> <p><u>ROADWORKS AND PAVING (PROVISIONAL)</u></p> <p>PREAMBLES</p> <p>For Preambles refer to Standard Preambles as issued by ASAQS</p> <p><u>PREAMBLES</u></p> <p>For preambles see Department of Health Standard Preambles to all Trades Rev 3 - January 2009</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the architect</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock"</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
<p>Carried to Collection</p> <p>Bill 19</p> <p>External works</p>		R	

<u>PHASE A ACCESS ROAD</u>					
<u>Excavation in earth not exceeding 2 m deep</u>					
A	LI Reducing levels under floors, parking, roadways, etc	m3	146		
<u>Extra over all excations for carting away</u>					
B	LI Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	146		
<u>Earth filling G10 material supplied by the contractor compacted to 100% Mod AASHTO density if cohesion less material, 90% if cohesive material</u>					
C	LI Under paving, in roadways, etc	m3	73		
<u>Earth filling G9 aterial supplied by the contractor compacted to 93% Mod AASHTO density</u>					
D	LI Under paving, in roadways, etc	m3	73		
<u>Earth filling G7 material supplied by the contractor compacted to 95% Mod AASHTO density</u>					
E	LI Under paving, in roadways, etc	m3	73		
<u>Earth filling G5 material supplied by the contractor compacted to 97% Mod AASHTO density</u>					
F	LI Under paving, in roadways, etc	m3	73		
<u>Earth filling G2 material supplied by the contractor compacted to 98% Mod AASHTO density</u>					
G	LI Under paving, in roadways, etc	m3	73		
<u>Soil insecticide</u>					
H	LI Under road surface, etc	m2	488		
<u>35mm Continuously graded asphalt (Manual 35 level IA design) compacted 93% to 96% of MVD</u>					
J	Asphalt to parking areas, roadways, etc.	m2	488		
<u>Prescribed density tests on filling</u>					
K	"Modified AASHTO Density" test	No	8		
Carried to Collection				R	
Bill 19					
External works					

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X	900mm High white or yellow lettering or numerals with an approved road marking paint	No	15	
	<u>RETAINING WALL ALONG PHASE A ACCESS ROAD</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
Y	LI Trenches	m3	350	
	<u>Excavation in earth exceeding 2m not exceeding 4m deep</u>			
Z	Trenches	m3	336	
	<u>Extra over all excations for carting away</u>			
AA	LI Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	279	
	<u>Risk of collapse of excavations</u>			
AB	LI Sides of trench and hole excavations not exceeding 1,5m deep	m2	281	
AC	LI Sides of trench and hole excavations exceeding 1,5m not exceeding 3m deep	m2	281	
AD	LI Sides of trench and hole excavations exceeding 3m not exceeding 3,5m deep	m2	205	
	<u>Earth filling G5 material supplied by the contractor compacted to 95% Mod AASHTO density</u>			
AE	LI Under paving, in roadways, etc	m3	52	
	<u>Keeping excavations free of water</u>			
AF	Keeping excavations free of water		Item	
	<u>Soil insecticide</u>			
AG	Under road surface, etc	m2	422	
	<u>Prescribed density tests on filling</u>			
AH	"Modified AASHTO Density" test	No	40	
	Carried to Collection			R
	Bill 19			
	External works			

	<u>20MPa Unreinforced concrete cast against excavated surfaces</u>				
AJ	LI Footings	m3	52		
	<u>30MPa Unreinforced concrete cast against excavated surfaces</u>				
AK	Walls	m3	97		
	<u>Mild and high tensile steel reinforcement</u>				
AL	Bars in all diameters	t	21.44		
	<u>Class F1 Ordinary Finish formwork to sides</u>				
AM	Sides of concrete wall	m2	780		
	<u>Formwork sundries</u>				
AN	Forming 30 x 30mm chamfers on top of concrete retaining wall	m	114		
	<u>Cube testing</u>				
AP	Making and testing sets of three 150 x 150 x 150mm concrete test cubes	No	35		
	<u>Isolation joints with 10mm thick polystyrene joint filler between vertical concrete surfaces</u>				
AQ	LI Joints not exceeding 300mm high	m	110		
	<u>Expansion joints with 12mm impregnated soft board sealed with polysulphide sealant at each end between vertical concrete surfaces</u>				
AR	LI Joints not exceeding 300mm high	m	12		
	<u>Subsoil drain</u>				
AS	110mm Slotted PVC drain pipe wrapped in and including U14 bidim with stone surround laid to fall towards outlet	m	114		
Carried to Collection				R	
Bill 19					
External works					

AT	50mm Diameter PVC weepholes built through 250mm concrete wall at 2000m centres horizontally with and including 130 x 130mm no fines concrete block behind	No	102
	<u>ASSEMBLY AREA AND AMBULANCE DROP-OFF SURFACE BED</u>		
	<u>Compaction of surfaces</u>		
AU	LI Rip and re-compacting insitu material under floors etc including scarifying for a depth of 150mm, breaking down oversize material adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	102
	<u>Earth filling G7 material supplied by the contractor compacted to 97% Mod AASHTO density</u>		
AV	LI Under paving, in roadways, etc	m3	15
	<u>Earth filling G5 material supplied by the contractor compacted to 95% Mod AASHTO density</u>		
AW	LI Under paving, in roadways, etc	m3	15
	<u>Soil insecticide</u>		
AX	LI Under road surface, etc	m2	102
	<u>30MPa Unreinforced concrete cast against excavated surfaces</u>		
AY	LI slabs	m3	10
AZ	LI Steps	m3	3
	<u>Finishing top surfaces of concrete smooth with power float</u>		
BA	LI Surface beds, slabs, etc to falls	m2	102
	<u>Formwork to sides and soffits</u>		
BB	LI Edges, risers, ends and reveals not exceeding 300mm high or wide	m	35
	<u>Fabric reinforcement</u>		
BC	LI Mesh Ref 395	m2	102
	Carried to Collection		R
	Bill 19 External works		

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	<u>Soil insecticide</u>				
BN	LI Under road surface, etc	m2	23		
	<u>Prescribed density tests on filling</u>				
BP	"Modified AASHTO Density" test	No	20		
	<u>20MPa Unreinforced concrete cast against excavated surfaces</u>				
BQ	Footings	m3	22		
	<u>30MPa Unreinforced concrete cast against excavated surfaces</u>				
BR	Walls	m3	32		
BS	slabs	m3	9		
	<u>Finishing top surfaces of concrete smooth with power float</u>				
BT	LI Surface beds, slabs, etc to falls	m2	23		
	<u>Formwork to sides and soffits</u>				
BU	LI Edges, risers, ends and reveals not exceeding 300mm high or wide	m	10		
	<u>Class F1 Ordinary Finish formwork to sides</u>				
BV	Walls	m2	259		
	<u>Formwork sundries</u>				
BW	Forming 30 x 30mm chamfers on top of concrete retaining wall	m	39		
BX	Ditto to edges of slab	m	10		
	<u>Cube testing</u>				
BY	Making and testing sets of three 150 x 150 x 150mm concrete test cubes	No	15		
Carried to Collection				R	
Bill 19					
External works					

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CK	Double swing gate size 2550 x 1932mm high	No	1
CL	Single gate size 1060 x 1932mm high	No	1
CM	Steel bollards 851mm high	No	7
<u>CONTRACTORS ACCESS</u>			
<u>Excavation in earth not exceeding 2 m deep</u>			
CN	LI Reducing levels under floors, parking, roadways, etc	m3	56
<u>Compaction of surfaces</u>			
CP	LI Rip and re-compacting insitu material under floors etc including scarifying for a depth of 150mm, breaking down oversize material adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	188
<u>Earth filling G7 material supplied by the contractor compacted to 97% Mod AASHTO density</u>			
CQ	LI Under paving, in roadways, etc	m3	28
<u>Earth filling G4 material supplied by the contractor compacted to 100% Mod AASHTO density</u>			
CR	LI Under paving, in roadways, etc	m3	28
<u>Extra over all excations for carting away</u>			
CS	LI Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	56
<u>Soil insecticide</u>			
CT	LI Under road surface, etc	m2	188
<u>Prescribed density tests on filling</u>			
CU	"Modified AASHTO Density" test	No	20
<u>35MPa Unreinforced concrete cast against excavated surfaces</u>			
CV	Slabs cast in 4 x 4m alternative panels	m3	28
Carried to Collection			R
Bill 19			
External works			

	<u>Finishing top surfaces of concrete smooth with power float</u>				
CW	LI Surface beds, slabs, etc to falls	m2	188		
	<u>Formwork to sides and soffits</u>				
CX	LI Edges, risers, ends and reveals not exceeding 300mm high or wide	m	94		
	<u>Cube testing</u>				
CY	Making and testing sets of three 150 x 150 x 150mm concrete test cubes	No	10		
	<u>Mild and high tensile steel reinforcement</u>				
CZ	Bars in all diameters	t	2.24		
	<u>SERVICE ACCESS</u>				
	<u>Excavation in earth not exceeding 2 m deep</u>				
DA	LI Reducing levels under floors, parking, roadways, etc	m3	32		
	<u>Extra over all excations for carting away</u>				
DB	LI Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	32		
	<u>Earth filling G10 material supplied by the contractor compacted to 100% Mod AASHTO density if cohesion less material, 90% if cohesive material</u>				
DC	LI Under paving, in roadways, etc	m3	16		
	<u>Earth filling G9 aterial supplied by the contractor compacted to 93% Mod AASHTO density</u>				
DD	LI Under paving, in roadways, etc	m3	16		
	<u>Earth filling G7 material supplied by the contractor compacted to 95% Mod AASHTO density</u>				
DE	LI Under paving, in roadways, etc	m3	16		
Carried to Collection					R
Bill 19					
External works					

	<u>Earth filling G5 material supplied by the contractor compacted to 97% Mod AASHTO density</u>				
DF	LI Under paving, in roadways, etc	m3	16		
	<u>Earth filling G2 material supplied by the contractor compacted to 98% Mod AASHTO density</u>				
DG	LI Under paving, in roadways, etc	m3	16		
	<u>Soil insecticide</u>				
DH	LI Under road surface, etc	m2	107		
	<u>35mm Continuously graded asphalt (Manual 35 level IA design) compacted 93% to 96% of MVD</u>				
DJ	Asphalt to parking areas, roadways, etc.	m2	107		
	<u>Prescribed density tests on filling</u>				
DK	"Modified AASHTO Density" test	No	10		
	<u>Precast 20MPa concrete kerbs</u>				
DL	Road kerb Fig 12 bedded and haunched up in 20 MPa insitu concrete, the kerb cast in convenient lengths, joined and pointed in 1-3 cement mortar	m	45		
DM	circular- on-plan to radius exceeding 2m Ditto	m	2		
	<u>Subsoil drain</u>				
DN	300mm Half round precast channel laid to falls	m	26		
	<u>RETAINING STRUCTURES NEAR SERVICE ACCESS</u>				
	<u>Bulk open face excavation in soft material below natural ground level over sloping site, including forming to plateaux, embankments, etc</u>				
DP	LI Open face excavation	m3	21		
	<u>Excavation in earth not exceeding 2m deep</u>				
DQ	LI Trenches	m3	2		
Carried to Collection					R
Bill 19 External works					

	<u>Extra over all excations for carting away</u>				
DR	LI Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	21		
	<u>Granular backfill G7 material supplied by the contractor compacted to 95% Mod AASHTO density and benched into firm in-situ material</u>				
DS	LI Behind retaining wall	m3	21		
	<u>25MPa Reinforced concrete cast against excavated surfaces</u>				
DT	LI Footings	m3	3		
	<u>Fabric reinforcement</u>				
DU	LI Mesh Ref 193	m2	15		
	<u>Retaining structure with stepped face and curves as required to suit slopes of precast concrete geolok blocks laid with horizontal bed joints to 65 degree slope</u>				
DV	Retaining wall of G400 geolok blocks	m2	31		
	<u>Subsoil drain</u>				
DW	110mm Slotted PVC drain pipe wrapped in and including U14 bidim with stone surround laid to fall towards outlet	m	14		
DX	300mm Half round precast channel laid to falls	m	14		
	<u>SERVICE WALKWAY</u>				
	<u>Compaction of surfaces</u>				
DY	LI Rip and re-compacting insitu material under floors etc including scarifying for a depth of 150mm, breaking down oversize material adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	48		
	<u>Earth filling G7 in-situ material compacted to 90% Mod AASHTO density</u>				
DZ	LI Under paving, in roadways, etc	m3	7		

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	<u>Bagging of 1:3 cement and sand mixture</u>				
EX	LI On brick walls, piers, etc.	m2	30		
	<u>Two coats bitumen emulsion waterproof coating</u>				
EY	LI On bagged brickwork	m2	30		
	<u>Galvanised hoop iron cramps, ties, etc</u>				
EZ	LI 30 x 1,2mm Thick galvanised non-perforated hoop iron strap 800mm long with one end shot fixed, or cast in, to concrete column and other end built into brickwork	No	32		
	<u>'Corobrik Roan Satin and or equal approved FBX clay bricks pointed with ruled recessed horizontal and vertical joints</u>				
FA	LI Extra over brickwork for face brickwork	m2	30		
	<u>Brick-on-edge header course coping,sills etc. with weathered joints on all exposed faces</u>				
FB	LI Coping on top of one brick walls	m	26		
	<u>Subsoil drain</u>				
FC	50mm Diameter PVC weepholes built through 250mm concrete wall at 2000m centres horizontally with and including 130 x 130mm no fines concrete block behind	No	17		
FD	LG Green SWC4 or equal and approved storm water precast channel	m	26		
	<u>WESTERN ACCESS ROAD</u>				
	<u>Preparation to existing horizontal surfaces</u>				
FE	LI Breaking up and remove asphalt and carting away	m2	978		
	<u>Excavation in earth not exceeding 2 m deep</u>				
FF	LI Reducing levels under floors, parking, roadways, etc	m3	743		
Carried to Collection				R	
Bill 19					
External works					

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**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

FS	circular- on-plan to radius exceeding 2m Ditto	m	13
FT	Road kerb Fig 6 bedded and haunched up in 20 MPa insitu concrete, the kerb cast in convenient lengths, joined and pointed in 1-3 cement mortar	m	88
FU	circular- on-plan to radius exceeding 2m Ditto	m	15
	<u>Road marking</u>		
FV	LI 100mm Wide white lines (broken) with an approved marking paint	m	93
FW	LI 100mm Wide white lines (un-broken) with an approved road marking paint	m	80
FX	LI 900mm High white or yellow lettering or numerals with an approved road marking paint	No	4
	<u>RE-GRADE IN PRICE STREET JOINING WITH NEW PHASE A ACCESS ROAD</u>		
	<u>Preparation to existing horizontal surfaces</u>		
FY	LI Breaking up and remove asphalt and carting away	m2	120
	<u>Excavation in earth not exceeding 2 m deep</u>		
FZ	LI Reducing levels under floors, parking, roadways, etc	m3	36
	<u>Extra over all excations for carting away</u>		
GA	LI Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	36
	<u>Earth filling G10 material supplied by the contractor compacted to 100% Mod AASHTO density if cohesion less material, 90% if cohesive material</u>		
GB	LI Under paving, in roadways, etc	m3	18
	<u>Earth filling G9 aterial supplied by the contractor compacted to 93% Mod AASHTO density</u>		
GC	LI Under paving, in roadways, etc	m3	18

Carried to Collection

R

Bill 19
External works

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	<u>Cube testing</u>				
HA	Making and testing sets of three 150 x 150 x 150mm concrete test cubes	No	12		
	<u>Reinforcement</u>				
HB	High tensile (Y) reinforcement in main bars and spirals to piles in all diameter	t	0.25		
	<u>Integrity testing</u>				
HC	Prepare head of pile for testing	No	12		
HD	Integrity testing in-situ concrete pile	No	12		
	<u>Excavation in earth not exceeding 2 m deep</u>				
HE	LI Reducing levels under floors, parking, roadways, etc	m3	15		
	<u>Compaction of surfaces</u>				
HF	LI Rip and re-compacting insitu material under floors etc including scarifying for a depth of 150mm, breaking down oversize material adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	49		
	<u>Extra over all excavations for carting away</u>				
HG	Spoil from piling to a dumping site to be located by the contractor	m3	16		
	<u>Keeping excavations free of water</u>				
HH	Keeping excavations free of water		Item		
	<u>Earth filling G7 material supplied by the contractor compacted to 93% Mod AASHTO density</u>				
HJ	LI Under paving, in roadways, etc	m3	7		
	<u>Earth filling G5 material supplied by the contractor compacted to 95% Mod AASHTO density</u>				
HK	LI Under paving, in roadways, etc	m3	7		
Carried to Collection				R	
Bill 19					
External works					

	<u>Earth filling G2 material supplied by the contractor compacted to 98% Mod AASHTO density</u>				
HL	LI Under paving, in roadways, etc	m3	7		
	<u>Soil insecticide</u>				
HM	LI Under road surface, etc	m2	49		
	<u>Prescribed density tests on filling</u>				
HN	"Modified AASHTO Density" test	No	5		
	<u>30MPa Unreinforced concrete cast against excavated surfaces</u>				
HP	slabs	m3	30		
HQ	Plinths	m3	5		
	<u>Finishing top surfaces of concrete smooth with power float</u>				
HR	LI Surface beds, slabs, etc to falls	m2	49		
	<u>Formwork to sides and soffits</u>				
HS	LI Edges, risers, ends and reveals not exceeding 300mm high or wide	m	29		
	<u>Rough formwork (Degree of accuracy II)</u>				
HT	Sides of plinths	m2	48		
HU	Box in to form 65 x 100mm chamfer to top edge of plinths	m	53		
	<u>Cube testing</u>				
HV	Making and testing sets of three 150 x 150 x 150mm concrete test cubes	No	2		
	<u>Galvanised flat bar</u>				
HW	80 x 8mm Thick flat bar fitted to plinth after casting levelled to +-2mm with steel packers and grouted with non-shrink five star grout	m	26		
Carried to Collection				R	
Bill 19					
External works					

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Section 2

Bill 19

External works

COLLECTION

Continued

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Amount

R

Total from page

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Carried to Summary of Section 2

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Bill 19
External works

**PORT SHEPSTONE PROVINCIAL HOSPITAL
NEW PSYCHIATRIC WARD**

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