



public works  
& infrastructure

Department:  
Public Works and Infrastructure  
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE  
DURBAN REGIONAL OFFICE

**REFERENCE NUMBER – DBN24/03/02**

**BOOK 2**

**VOLUME 2 OF 5 BILL OF QUANTITIES PART B**

**SERVICE DESCRIPTION: JUSTICE: BERGVILLE MAGISTRATE COURT: REPAIRS AND RENOVATIONS INCLUDING UPGRADE AND INSTALLATION OF BOREHOLE**

**SUBMITTED BY:**

Company Name : .....

CSD / CIDB registration number: ...../ .....

Physical Address: \_\_\_\_\_  
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Contact No. \_\_\_\_\_

Email \_\_\_\_\_

**CLOSING DATE: 18 APRIL 2024**

**TENDER BOX LOCATION: PHYSICAL ADDRESS: National Department of Public Works, 157 Monty Naicker, Durban, 4001**

**TENDER BOX NUMBER: DBN24/03/02**

**Enquiries:** For technical enquiries contact Mr. Mbambiseni Vilakazi, Mobile number: 0725949868, e-mail [Mbambiseni.vilakazi@dpw.gov.za](mailto:Mbambiseni.vilakazi@dpw.gov.za) and for other enquiries contact Ms. Zanele Luthuli Telephone number – 031 314 7072 e-mail [zanele.luthuli@dpw.gov.za](mailto:zanele.luthuli@dpw.gov.za) or Nobuhle Gwala 031 314 7021 e-mail [Nobuhle.Gwala@dpw.gov.za](mailto:Nobuhle.Gwala@dpw.gov.za) or Ms. Thulisile Ndlovu Telephone number: 031-314 7061 email [Thulisile.Ndlovu@dpw.gov.za](mailto:Thulisile.Ndlovu@dpw.gov.za)

**BERGVILLE MAGISTRATE OFFICE  
REPAIR AND RENOVATIONS**

7	Assa Abloy 65mm Knob Turn Patented Commercial Use Double Turn Knob Cylinder to BSEN Current Certificate on Request.	No	1		
8	SS5305-05SS Escutcheon on Rose profile	No	28		
9	Adjustable roller catch (Code: ARC1182SS)	No	1		
10	DC300DA "ASSA ABLOY" R&P Door closer EN3-6 DA SIL complete	No	15		
11	DC500 cam action door closer EN1-4 SIL	No	1		
12	Heavy Duty Spring Door Holder. (Code: B3440SC)	No	2		
<b><u>CELL LOCKS</u></b>					
13	Provide a budgetary allowance of Thirty Two Thousand Rand (R32'000.00) (This sum will be deducted from the contract) for Cell Locks provided to the Contractor (taking delivery and fixing elsewhere)			Item	32 000.00
14	Allow for profit			Item	
15	Allow for taking delivery, storing on site and fixing in position only	No	1		
<b><u>ACCESS CONTROL</u></b>					
<b><u>Multi door access control</u></b>					
16	Allow the PC amount of One Hundred Thousand Rand (R 100 000.00) for Access control complete			Item	100 000.00
17	Allow for profit and attendance			Item	
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Section No. 2 Bill No. 10 Ironmongery <b>RUBIQUANT</b> <b>QUANTITY SURVEYORS</b>					

<b><u>SECURITY</u></b>		
<b><u>HISSCO or other approved</u></b>		
18	"RScan-D8000A" or similar approved Walkthrough Metal Detector	No 1
19	"HS 5030" or similar approved security x-ray inspection system	No 1
<b><u>Tactical distributors SA or other approved</u></b>		
20	BPT Bullet trap	No 1
<b><u>HINGES, BOLTS, ETC.</u></b>		
21	Butt Hinge EN1935:2002 Class 13. 102 x 76mm Ball Bearing Hinge to EN1935:2002.	No 147
22	Rising Butt Hinge handed EN1935	No 18
23	"ART" 208C91 L/flush bolt 150mm (Code: AL8208-150AS)	No 1
24	"ART" 208C91 L/flush bolt 225mm (Code: AL8208-225AS)	No 1
<b><u>HANDLES</u></b>		
25	SS5D67TR/TL-5004SS Union Dove Pull Handle on 152mm x 178mm Backplate + W/C Indicator included (To be Handed RH/LH)	No 26
26	SS5DBT0694x315 S/S Pull Handle 25mmØ x 250mm ctc on 94 x 315mm S/S Back Plate.	No 22
27	Dove Lever Handle On 152 x 178mm Backplate- Profile. As per Assa Abloy Architect Approved Sample.	No 10
28	Dove pull Handle On 192 x 45mm Backplate- Profile. As per Assa Abloy Architect Approved Sample.	No 1
29	5213BTSS 350mm Pull Handle bolt thru	No 3
30	SS5213BBSS Union 350mm Stainless steel back to back "D" shaped pull handles	No 2
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**DOOR STOPS**

**"Assa Abloy"**

31	87001SS Floor door stop satin SS	No	24
32	99011SS Wall door stop satin SS	No	33
33	99022SS Wall projection door stop satin SS	No	33
34	SS8025SS Hat & Coat hook with buffer	No	21

**HAT AND COAT HOOK**

**"Union" or other approved**

35	AL8104AS Hat & Coat hook 500mm long	No	2
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**SUNDRIES**

36	8852SC, Dust proof strike	No	2
37	Hychem or other approved Broom and Mop hook complete as per Architect specification	No	1

**DOOR PROTECTION PLATES**

**"Solid" or other approved**

38	300 x 800mm kick plate fix with counter sunk screws	No	70
39	300 x 800mm bumper plate fix with counter sunk screws	No	85
40	continuous 900 x door thickness x 20mm channel edge protector fix with counter sunk screws	No	47
41	continuous 900 x door thickness x 20mm channel edge protector complete with hinge cut out fix with counter sunk screws	No	47

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**BLINDS**

**50mm "HOSPI-TRACK" venetian blinds or similar and approved including brass cordlock and galvanised tilt mechanism fixed to one side of headrail including heavy duty universal box brackets complete with matching authentic wood bottom rail, valance, bottom buttons and tassels. installed strictly to manufacturers specifications.**

54	Window size 533 x 945mm high	No	1
55	Window size 920 x 1500mm high	No	4
56	Window size 975 x 1800mm high	No	5
57	Window size 1022 x 1500mm high	No	9
58	Window size 1066 x 1500mm high	No	1
59	Window size 1160 x 1500mm high	No	1
60	Window size 1300 x 1500mm high	No	1
61	Window size 2000 x 1500mm high	No	6

**GRAB RAILS**

**"Stainless Steel Design"**

62	STANDARD 300 x 300 x 300 x 80mm projecting dog leg side rail (KB26) as by Stainless Steel Design. Installed strictly to manufacturers specifications.	No	4
63	STANDARD 800 long X 150 mm projecting straight disabled rail (KB18) as by Stainless Steel Design. Installed strictly to manufacturers specifications.	No	4

**CORNER PROTECTORS**

64	1200 mm High x 5mm thick stainless steel corner protector fix with approved epoxy	No	15
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<b><u>BATHROOM FITTINGS</u></b>				
<b><u>"Franke" or other approved</u></b>				
65	Franke Chronos STRX 600,1,2mm thick Grade 304 18/10 satin stainless steel paper towel dispenser (code: 2120038), size 300 x 305 x 134mm deep with capacity of 300-400 towels, plugged and screwed to the wall with stainless steel screws. Installed strictly to manufacturers specifications.	No	7	
66	Standard stainless steel wall mounted lockable toilet roll holder as by FRANKE Washroom Accessories - Model - STRX 672 - 2120044, Installed strictly to manufacturers specifications	No	14	
67	INGE metal craft Standard vandal resistant Stainless steel wall recessed Toilet Roll holder Code - RTRH 0114. Core drill and epoxy grout Unit on to plastered brick wall with an approved grout. Ensure unit to have a flush fit all-round. Pre-approve sample installation.	No	4	
68	Franke Chronos STRX605 1.2mm thick Grade 304 18/10 stainless steel waste disposal bins (Product Code: 2120048), size 520 x 300 x 270mm deep with waste bin capacity of 34 litres, plugged and screwed to the wall with stainless steel screws. Installed strictly to manufacturers specifications.	No	4	
69	Standard stainless steel wall mounted soap dispenser as by FRANKE Washroom Accessories - Model – STRX618 - (Product Code :2120041) , Installed strictly to manufacturers specifications.	No	10	
70	500 x 600 model MH600R Chronos reflective polished surface mirror with concealed fixings Installed strictly to manufacturers specifications.	No	8	
71	Finda classic rage 800mm long double towel rail in mirror polished	No	8	
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	<b>HAND AND CUFF RAIL</b>			
72	30mm Diameter (2mm wall thickness) stainless steel hand cuff rail 3 000mm long, fixed to wall with 4 x M10 full threaded bolts, chemically anchored in wall through 150 x 150 x 6mm mild steel base plate at 1 000mm centres (POL2012/B1)	No	4	R
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**PINNING BOARDS, WRITING BOARDS,  
PROJECTION SCREENS, ETC**

**"Parrot Combi" white board and non-magnetic felt pinboard BD3070 with concealed mounting, slide-in aluminium pen tray, size 450 x 35mm, and an aluminium frame with a 10mm wide H-bar divider, to be supplied with all necessary fixing components or other approved**

73 Wall mounted notice board size 1 500 x 1 000mm high No 6

**Vitrex System 2000 or similar approved vitreous enamelled pinning boards and fixing to manufacturers' instructions or other approved**

74 Pinning board size 1 500 x 1 000mm high and fixing to walls No 7

**BENCHES**

**"Office world" silver line benches (or other approved)**

75 Two seater size 1 220mm long x 680mm wide x 800mm high No 2

76 Three seater size 1 800mm long x 680mm wide x 800mm high No 2

77 Four seater size 2 420mm long x 680mm wide x 800mm high No 6

78 Four seater and table size 3 050mm long x 680mm wide x 800mm high No 1

79 Five seater and table size 3 660mm long x 680mm wide x 800mm high No 1

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**METALWORK**

JBCC Group No. 136

**SUPPLEMENTARY PREAMBLES**

For Preambles see "PW371 - Specification of Materials and Methods to be used"

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**Descriptions**

Descriptions of bolts shall be deemed to include nuts and washers.

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.

Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolt unless otherwise described.

Metalwork described as "screwed" shall be deemed to include holes and screws.

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**MILD STEEL BALUSTRADES**

**Welded balustrades to stairs, passages, etc.**

1	60 mm x 2 mm Thick Circular hollow section top rail	m	14
2	32 mm x 2 mm Thick Circular bottom rail	m	14
3	12 mm Round solid section upright welded between top and bottom rails	m	6
4	32 mm x 3 mm Thick Circular hollow section baluster welded between top rail and base plate	m	5
5	100 mm x 30 mm x 2 mm Thick flat base plate twice holed for bolts in concrete (bolts elsewhere measured)	No	5
6	10 mm Diameter expansion bolts	No	19

**Extra over 60 mm x 2 mm Thick Circular hollow section top rail**

7	T-intersection with 10 mm x 10 mm stanchion	No	24
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**Extra over 32 mm x 2 mm Thick Circular bottom rail**

8	T-intersection with 10 mm x 10 mm stanchion	No	24
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**PRESSED STEEL DOOR FRAMES**

**1.6mm Double rebated frames suitable for half brick walls**

9	Frame for door 813 x 2 032mm high	No	9
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**1.6mm Double rebated frames suitable for one brick walls**

10	Frame for door 813 x 2 032mm high	No	26
11	Frame for double door 1613 x 2032mm high	No	1

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<b><u>STEEL STRONGROOM DOORS, VENTILATORS, ETC</u></b>		
<b><u>"Mutual Safes" Strongroom doors etc suitable for 230mm walls fixed to brickwork or concrete or other approved</u></b>		
12	DS50/1 Category 1 strongroom door and frame with a mass of 650 kg	No 2
13	Double ended strongroom ventilator	No 2
<b><u>GARAGE DOOR</u></b>		
<u>Note:</u> Tenderers are referred to architect's drawing attached to these bills of quantities for tender purposes		
14	Garage door size 2500 x 2125mm high as specified by architect	No 5
<b><u>Coroma Corosteel steel sectional manually operated garage door with 32mm diameter punched infill options with surface to receive powder coating (colour to be selected):</u></b>		
<b><u>ACCESS CONTROL TURNSTILE</u></b>		
<b><u>Electronically Controlled Turnstiles with side gate</u></b>		
15	Flow Systems Model 356 electronically controlled double electrical bi-directional 4-arm (90°) revolving turnstile, overall size 2180 x 1200 x 2181mm high painted mild steel enclosure with 38mm diameter tube rotor arms and push button access control, to suit opening size 2500 x 3000mm high, bolted to 20MPa 2400 x 1300 x 150mm thick concrete base with 12No. M12 x 75mm anchor bolts and connected to 220V AC single phase power supply, including side gate, or other approved see detail designs at the back of the bill of quantities	No 2
<b><u>STEEL SAFES AND LOCKERS</u></b>		
<b><u>Galvanized steel pistol safe with power coated epoxy finish</u></b>		
16	Pistol safe size 330 x 305 x 300mm high (mass 16kg) including seven lever security un-pickable lock, fixing to wall with four 10mm diameter expansion bolts, etc.	No 1
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<b><u>Galvanized steel lockers with power coated epoxy finish</u></b>				
17	Locker size 300 x 450 x 1800mm high consisting of 0,6mm thick bottom, sides, back, shelf, top and door, including shelf, hanging rail, two vent openings to door, fixing to wall with four 10mm diameter expansion bolts	No	6	
<b><u>SECURITY GATES &amp; SCREENS</u></b>				
<b><u>Security gates</u></b>				
18	Single gate 900 mm x 2 100 mm high of 32 mm x 32 mm x 2 mm hollow section mitred , frames and welded frame filled in with 10 mm x 10 mm solid square bars vertical at 100 mm centres maximum and 2 x 32 mm x 10 mm flat section cross braces drilled to receive square bars and fitted with one and a half pair of 100 mm x 125 mm steel projection hinges (hinges welded to frame and bolted to brickwall with 10 mm diameter expansion bolts - head of bolt to pass through hinge into frame when closed), oval cylinder upright lockset with "Gower" handles (lockset to be fully enclosed by mild steel housing) complete with escutcheons, striking plates and for ends and top- and bottom bolts.	No	19	
19	Double gate size 2 085 wide x 2 720 high, High security mesh panels as supplied by specialist, Gate complete with Ironmongery and fixed into openings between suspended ceilings, concrete beams, steel beams, brick walls, etc. as specified by Architect See drawings at the back of the bill of quantities(Door SEC-CVD001)	No	1	
<b><u>Security screens</u></b>				
20	Security screen size 2 212 wide x 2 720 high, High security mesh panels as supplied by specialist, screen complete with Ironmongery, and fixed into openings between suspended ceilings, concrete beams, steel beams, brick walls, etc. as specified by Architect See drawings at the back of the bill of quantities(Door SEC-CVP001)	No	6	
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<b><u>CELL DOORS</u></b>				
21	Standard solid steel cell door, grill gate and frame combination size 1 018 mm wide x 2020 mm high complete with and including locks, handles, hinges, etc. as per attached drawings POL2012/D1 - POL2012/D5.	No	9	
<b><u>CELL GATES</u></b>				
22	Standard grille Cell gate 894 x 1 966mm high formed of 50 x 50 x 4mm hollow section frame, mitred at corners filled in with four 50 x 50 x 4mm horizontal middle rails and 16mm diameter vertical rods at 88mm centres, lock box insert formed of two 40 x 10mm flat section bars 236mm long welded to two 240 x 230 x 5mm lock box plates for lock (elsewhere), gate hinged to steel door frame with two (Type A - Top & Bottom Hinge) and one (Type B - Middle Hinge) 40mm diameter hinges each 120mm formed of hinge pin 90mm (Type A), 100mm (Type B) long with 19,5mm diameter spindle 30mm (Type A), 40mm (Type B) long hollowed for 16mm carbon chromium steel roller ball (Type A) and spindle 60mm long with 20mm diameter hole 45mm long to house spindle (Type A & B) and roller ball and threaded for 12mm diameter x 30mm grade 8.8 bolt with locknut (Type A) and drilled for and including grease nipple (Type A & B) (POL2012/D1 to D5)	No	4	
<b><u>CELL WINDOWS</u></b>				
23	Standard cell window size 850 mm wide x 950 mm high complete with window, 7.52 mm laminated glass glazing, internal- and external fixed screens complete, web width 10mm and openings of 10mm x 40mm, as per architect specification (W001)	No	4	
24	Standard cell window size 850 mm wide x 950 mm high complete with window, 7.52 mm laminated glass glazing, internal- and external fixed screens complete, web width 10mm and openings of 10mm x 40mm, as per architect specification (W002)	No	7	
<b><u>STEEL ADJUSTABLE SHELVING</u></b>				
25	1.6mm Thick double slot wall band 2100mm long plugged and screwed to wall	No	65	
26	1.6mm Thick shelf support brackets 400mm wide	No	260	
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<b><u>CASH TRANSFER TRAY</u></b>				
27	"Austen Security Safes" or other approved Standard Stainless steel cash transfer tray, 285 mm wide x 255 mm long x 50 mm deep	No	2	
<b><u>Sally port roller Shutter</u></b>				
28	Provide the PC amount of Eighty Thousand Rand (R80'000.00) for supply and installation of security roller shutter door at Sally Port complete	Item		80 000,00
29	Allow for profit and attendance	Item		
<b><u>ALUMINIUM WINDOWS, DOORS, ETC</u></b>				
<u>Note:</u> Tenderers are referred to architect's drawing attached to these bills of quantities for tender purposes				
<b><u>Windows and doors</u></b>				
Doors and windows to be of the types described, and manufactured by and in accordance with the standard specification of "Aluminium City", or other approved hereinafter referred to as the Manufacturer.				
After manufacture, the Manufacturer shall be responsible for the delivery to site, unloading, placing in temporary storage, setting up and fixing in position, the supply of glass and glazing complete, sealant pointing, application and removal of protection tape and cleaning and servicing on completion of all aluminium doors and windows. Cleaning of glass before handing over shall be the responsibility of the Contractor as all glass is to be glazed clean by the manufacturer.				
<b><u>Glazing</u></b>				
Doors and windows are to be glazed with glass as described. Glazing may be either factory or site glazed and shall be executed by the Manufacturer who must ensure that glass is clean and free from any defects on completion of glazing				
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**Fixing**

All doors and windows are to be fixed in position by the Manufacturer. All must be perfectly plumb and shall be strutted and braced as necessary to prevent distortion

**Pointing etc.**

All doors and windows shall be waterproofed with "Sondor" or other approved wax impregnated sealing strip between the aluminium frame and the structure, and in addition shall be pointed all round on the external face with "Expandite Thioflex 600" or other approved two part polysulphide liquid polymer sealing compound, applied at the junction of the frame with the structure. Pointing, etc. of doors and windows shall be executed by the manufacturer, or his approved specialist waterproofing sub-contractor

**Protection**

The protection of aluminium doors and windows during and after fixing shall be the responsibility of the Contractor, they must be kept free from mortar droppings, etc. any units damaged are to be replaced. Aluminium doors and windows shall be protected with suitable adhesive protection tape applied to all exposed surfaces by the Manufacturer at the factory prior to delivery to site. Protection tape is to be of a different colour from the anodising

**Servicing etc.**

When necessary, all protection tape shall be removed by the Manufacturer, who shall the clean the doors and windows, but excluding the glass, which will have been glazed clean, test and service them, make all necessary adjustments and/or repairs and leave them in perfect order. Protection of the doors and windows after servicing by the Manufacturer and cleaning of glass after glazing shall be the responsibility of the Contractor

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**Prices**

Prices for aluminium shall include the manufacture, delivery to site, unloading, setting up and fixing in position, supply of glass and glazing complete, "Sondor" sealing strips, wrought softwood infill linings to all hollow section aluminium frames according to details and sealant pointing, fixing lugs, brackets, screws, beads, timber grounds, cleaning and servicing of windows, all by the Manufacturer

**References**

The type numbers used in the following descriptions are those referred to the relevant type numbers on the drawings issued for tender and construction purposes. The sizes given in the following descriptions are nominal and prices are to take cognisance thereof

**Ironmongery**

**Prices for windows, doors and frames should allow for all the ironmongery specified on the drawings referred to**

**Purpose made Bronze powder coated aluminium windows, complete with and including ironmongery and 6mm glazing as per the specifications and window schedules at the back of the bill of quantities. All as per SABS regulations and fixed into openings between suspended ceilings, concrete beams, steel beams, brick walls, etc.(see attached drawings)**

30	Window 1888 x 1530mm high (AW002 Part A)	No	1
31	Window 2220 x 1530mm high (AW002 Part B)	No	1
32	Window 1160 x 1530mm high (AW001)	No	2
33	Window 1430 x 1530mm high (AW003 Part A)	No	1
34	Window 731 x 1530mm high (AW003 Part B)	No	1

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35	Window 600 x 935mm high (AW004)	No	5	
36	Window 2000 x 1530mm high (AW005)	No	2	
37	Window 533 x 935mm high (AW006)	No	2	
38	Window 1022 x 935mm high (AW007)	No	2	
	<p><b><u>Purpose made Bronze powder coated aluminium windows, complete with and including ironmongery and 22mm bullet proof glazing as per the specifications and window schedules at the back of the bill of quantities. All as per SABS regulations and fixed into openings between suspended ceilings, concrete beams, steel beams, brick walls, etc.(see attached drawings)</u></b></p>			
39	Window 3000 x 1500mm high (Cash hall counter)	No	2	
	<p><b><u>Purpose made Bronze powder coated aluminium doors, complete with and including ironmongery and glazed as per the specifications and door schedules at the back of the bill of quantities. All as per SABS regulations and fixed into openings between suspended ceilings, concrete beams, steel beams, brick walls, etc.(see attached drawings)</u></b></p>			
40	Door size 1248 x 1530mm high (ALHS002 part B)	No	1	
41	Door size 1020 x 2635mm high with and including side hung window size 1395 x 1530 (ALHS002 Part A)	No	1	
42	Door size 900 x 2635mm high (ALHS001)	No	3	
43	Door size 1575 x 2635mm high (ALHD002)	No	1	
44	Door size 1575 x 2635mm high with and including side hung window size 625 x 1530 (ALHD001)	No	1	
45	Door size 650 x 2040mm high Louvre panel (ALLP001)	No	1	
46	Door size 2115 x 2380mm high Louvre Door (ALLD001)	No	1	
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**STRUCTURAL STEELWORK (PROVISIONAL)**

**SUPPLEMENTARY PREAMBLES**

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 other approved may be used with prior approval from the architect.

Where there is a reference to SABS code, it means the new SANS code definition.

**NOTES**

1. All steel must be grade 300 W to SABS 1431.  
Commercial  
Grade cold rolled sections to have a minimum yield stress of 225 MPa (Contractor to get confirmation from supplier in this regard).
2. All bolts and nuts to be grade 8.8 unless otherwise specified.  
Bolts shall be hot dip galvanised to BS763 and it must be possible to screw mate parts together by hand.
3. All fasteners must be supplied by the Contractor.
4. All welds shall be full penetration 6mm welds to SABS 044 and SABS 455, all round where possible, unless otherwise stated.
5. All construction and workshop details must be approved by the Engineer before fabrication is started.

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Structural Steelwork  
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6. Structural steelwork must be carried out according to SABS 1200H.

7. All bolts and nuts must have washers.

8. The contractor must ensure adequate structural stability of the structure for the full duration of erection. The contractor shall supply all temporary bracing and fixing mechanisms to achieve the above.

9. No holes to be formed or widened with the use of a cutting torch. The contractor must confirm all dimensions on site. Discrepancies to be reported to the engineer.

10. Prices for all structural steelwork are to include for the following:

(a) preparation and submission of two complete sets of shop drawings to the Structural Engineers for approval,

(b) fabrication,

(c) cleaning down and sandblasting to SA 2,5 (SIS 05 5900 - 1967) with profile of between 40 and 70 micron,

(d) prime (within 3 hours of sandblasting) with "Plascon zinc phosphate primer (UC. 170) to dry film thickness of between 50 and 100 micron,

(e) delivery to site,

(f) storage, if necessary,

(g) hoisting and erection complete, including all holing, galvanised mild steel bolts, washers, packing pieces, bolting, welding, etc

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11. Painting of structural steelwork after erection is  
elsewhere  
measured

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**SUNDRY GALVANISED STEELWORK**

**Galvanised steel posts as per Engineer's specification**

1	305 x 165 x 40mm Thick cold-formed I-Beam	kg	230
2	100 x 50 x 20 x 3mm Thick cold-formed lipped channel	kg	1 401
3	100 x 100 x 5mm Thick cold-formed square hollow section	kg	1 252
4	120 x 120 x 5mm Thick cold-formed square hollow section	kg	1 963
5	150 x 100 x 4.5mm Thick cold-formed rectangular hollow section	kg	310
6	76.2 x 3.5mm Thick cold-formed circular hollow section	kg	585
7	127 x 4mm Thick cold-formed circular hollow section	kg	439
8	5mm Mild steel connection plate at roof truss welded	No	60
9	10mm Mild steel connection plate at base plate welded	No	64
10	12mm Mild steel connection plate 5470mm x 170mm at base plate	No	5
11	M12 Bolt and nut	No	240
12	M16 Holding down bolt, 250mm long	No	240
13	M20 Holding down bolt, 350mm long	No	16

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**HIGH SECURITY MESH SCREEN CEILINGS**

**Security mesh ceiling to be manufactured according recommended specifications. All steelwork to be hot dipped galvanised. Verify dimensions of areas mesh panel sizes before manufacturing as per Five star specifications 2012 POL2012/G1**

14	Screenex or Beahaert Bastion Hi Security 358 Singleskin Galfan Class A coated (SANS Spec. 10244-2:2003) or other approved, mesh panels fitted into framework with secure fixing	m2	84
15	IPE 180 x 91 x 19mm I-section beams	kg	1 395
16	Extra over IPE 180 I-section beam for T-intersection	No	24
17	40 x 40 x 3mm Angle section framing	kg	443
18	50 x 50 x 5mm Angle section framing bolted to wall of welded to I-beam (bolts elsewhere)	kg	907
19	90 x 90 x 6mm Angle section framing bolted to wall of welded to I-beam (bolts elsewhere)	kg	233
20	100 x 75 x 6mm Angle section bracket bolted to wall	kg	226
21	150 x 90 x 10mm Angle section support bolted to wall (bolts measured elsewhere)	kg	136
22	250 x 50 x 10mm Lugs built into brickwork	No	186
23	3mm Solid steel plate size 1 250mm x 1 250mm welded to the mesh (elsewhere measured)	No	548
24	Extra over 50 x 50 x 5mm angle section framing for mitred corner intersection	No	42
25	Hole through 5mm steel for bolt	No	618
26	Hole through 6mm steel for bolt	No	730
27	Hole through 10mm steel for bolt	No	346
28	16mm Diameter chemical anchor bolt	No	1 238
29	20mm Diameter chemical anchor bolt	No	440

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	<b><u>SECTION NUMBER 2</u></b>			
	<b><u>BILL NUMBER 13</u></b>			
	<b><u>PLASTERING</u></b>			
	JBCC Work Group No. 142			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For Preambles see "PW371 - Specification of Materials and Methods to be used"			
	-----			
	<b><u>SCREEDS</u></b>			
	<b><u>Sponge finished wood floated on concrete</u></b>			
1	50mm Thick on floors and landings	m2	581	
2	50mm thick on roofs to falls and currents	m2	96	
	<b><u>Brushed finished floated on concrete</u></b>			
3	50mm Thick on floors and landings	m2	384	
	<b><u>Self levelling screed</u></b>			
4	Self levelling screed 4-8mm thick on floors	m2	19	
	<b><u>POLYURETANE</u></b>			
	<b><u>Polyuretane area cement Self levelling floor covering</u></b>			
5	Stonecor Africa or other approved Self levelling Polyuretane screed 4-8mm thick on floors	m2	125	
6	Skirting (3-9mm Thick)	m	122	
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<b><u>GRANOLITHIC</u></b>					
<b><u>Granolithic floor covering</u></b>					
7	32mm thick tinted granolithic finished cement on floors	m2	177		
8	75mm high Granolithic skirting	m	146		
<b><u>INTERNAL PLASTER</u></b>					
<b><u>Cement plaster on brickwork</u></b>					
9	On walls "LI"	m2	1 231		
10	On narrow widths "LI"	m2	83		
<b><u>Cement plaster on concrete finished with a steel trowel</u></b>					
11	On ceilings "LI"	m2	96		
<b>Carried to Collection</b>					
Section No. 2 Bill No. 13 Plastering <b>RUBIQUANT QUANTITY SURVEYORS</b>					R

**EXTERNAL PLASTER**

**Cement plaster on brickwork**

12	On walls "LI"	m2	655
13	On narrow widths "LI"	m2	33

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Item No	<u>SECTION NUMBER 2</u>	Quantity	Rate	Amount
	<u>BILL NUMBER 14</u>			
	<u>TILING</u>			
	JBCC Work Group No. 144			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For Preambles see "PW371 - Specification of Materials and Methods to be used"			
	-----			
	<u>WALL TILING</u>			
	<u>200 x 200 x 6mm Thick "SAMCA" matt white ceramic wall tiles (Code OMA1000) fixed with approved adhesive to plaster (plaster elsewhere measured) and flush pointed with waterproof jointing compound or other approved</u>			
1	On walls "LI"	m2	34	
2	On narrow widths "LI"	m2	3	
	<u>200mm High Mosaic boarder of full bodied porcelain "mesh black" mosaic tiles (Code 792) fixed with approved adhesive to plaster (plaster elsewhere measured) and flush pointed with waterproof jointing compound</u>			
3	Dado band 200 mm high formed of 23 x 23mm mosaic tiles	m	25	
	<b>Carried to Collection</b>			
	Section No. 2 Bill No. 14 Tiling <b>RUBIQUANT QUANTITY SURVEYORS</b>			
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**FLOOR TILING**

**Double charge Vitrified full body porcelain tiles with a water absorption (EN ISO 10545-3) of less than 0.1% and a scratch resistance (EN ISO 10545-7) of <150mm3. Slip classification (DIN 51130 (R) to be R9 – all according to detail tile layout. All strictly to manufacturer’s specifications. Colour and type to Architect’s approval.**

4	On floors "LI"	m2	562
5	Skirting 100mm high "LI"	m	1 168

**SUNDRIES**

**Strips between tiles and on top of tile skirtings**

6	8mm Aluminium Formable Straight Edge Trim (AFE080)	m	50
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**Internal or external corner strips**

7	8mm Aluminium Round Edge Trim (ARE080)	m	593
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Tiling

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Item No		Quantity	Rate	Amount
	<b><u>SECTION NUMBER 2</u></b>			
	<b><u>BILL NUMBER 15</u></b>			
	<b><u>PLUMBING AND DRAINAGE (Provisional)</u></b>			
	JBCC Work Group No. 146 & 148			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For Preambles see "PW371 - Specification of Materials and Methods to be used"			
	-----			
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>0.8mm Baked enamel on aluminium gutter system in continuous lengths:</u></b>			
1	150 x 100mm Ogee eaves gutters.	m	393	
2	Extra over eaves gutter for stopped end.	No	26	
3	Extra over eaves gutter for angle.	No	17	
4	Extra over eaves gutter for outlet for 100 x 75mm down pipe.	No	53	
5	100 x 75mm Downpipe.	m	223	
6	100 x 75mm Spreader pipe 800mm long.	No	53	
7	Extra over rainwater pipe for offset bend.	No	106	
8	Ditto for shoe.	No	53	
9	380 X 900mm Concrete water channel	No	53	
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	Section No. 2 Bill No. 15 Plumbing and Drainage <b>RUBIQUANT QUANTITY SURVEYORS</b>			

**SANITARY FITTINGS**

**The following in WASH HAND BASINS fixed  
complete in position and connected to services**

10	Vaal Hibiscus vitreous china code 702303WH wash hand basin or similar approved, wall hung with two tap holes including integrated overflow and chainstay hole, bolted to wall with 2No. 10mm bolts (Code: 8448Z000) and sealed with silicon sealant against wall	No	5
11	Vaal Bantam vitreous china cloakroom basin (code: 7030), size 455 x 290mm with two tapholes, including integrated overflow and chainstay hole bolted to wall with two 10mm bolts (code: 8448Z0) and sealed with silicone sealant where basin meets wall.	No	2
12	COBRA 345/50 bottle trap, 50mm pvc outlet. Includes: 75mm deep re-seal, adjustable telescopic pipe, and 1 1/4" female inlet x Ø 50mm outlet for PVC tube.	No	7
13	COBRA angle regulating valves - COBRA 832/350F. Including 350mm braided flexi hose.	No	28
14	Cobra Watertech Stella 15mm chrome plated basin pillar tap, with tapered flow-straightened (3314ST- 15). Includes: hot and cold indices, 1/2" BSP male inlet, flanged backnut, and streamline outlet for flow aesthetics.	No	8
15	Cobra Watertech 32mm Machine chrome plated slotted basin waste union (Product Code: 303). Includes: 62mm diameter flange, 77mm long shank, and 1 1/4" BSP male outlet connection. COBRA angle regulating valves - COBRA 832/350F. Including 350mm braided flexi hose.	No	7
16	COBRA 309-32 "anti-theft" chrome-plate plug Includes: 72mm spindle and spindle-locking tab, and 39mm diameter plug.	No	14
17	Cobra Watertech 15mm chrome plated pillar tap (Code: 505-21B/p-WS/6-nolime) with blue indice and elbow action lever, manufactured in accordance with SANS 226:2009 Type 2 (BS 5412).	No	3

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18	Cobra Watertech 15mm chrome plated pillar tap (Code: 505-21R/p-WS/6-nolime) with red indice and elbow action lever, manufactured in accordance with SANS 226:2009 Type 2 (BS 5412).	No	3
19	15 mm Castle -or other approved- ballostop	No	14
<b><u>The following in WC suite complete</u></b>			
20	Daisy vitreous china semi close coupled washdown pan comprising 90° outlet open rim pan (product code 751400) flushing valve (elsewhere) including lid and fitments with heavy duty seat.	No	10
21	Cobra Watertech exposed WC chrome plated Junior Flushmaster flushvalve (code: KF4.213) with nonhold open feature, vacuum breaker, back entry flushpipe, galvanised steel undertile box with stainless steel faceplate, palm press button, rubber pan connector and 32mm "Ball-o-Stop" control inlet.	No	14
<b><u>The following in PARAPLEGIC WC suite complete</u></b>			
22	Vaal Protea Paraplegic vitreous china floor mounted paraplegic washdown suite colour White (Code: 750246WH), comprising 90° outlet pan, flushing valve (elsewhere) including lid and fitments with heavy duty seat.	No	4
23	Cobra Watertech exposed WC chrome plated Junior Flushmaster flushvalve (code: KF4.213) with nonhold open feature, vacuum breaker, back entry flushpipe, galvanised steel undertile box with stainless steel faceplate, palm press button, rubber pan connector and 32mm "Ball-o-Stop" control inlet.	No	4

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<b><u>The following in URINAL complete</u></b>				
24	Vaal 600 x 385 x 380mm Lavatera back inlet white vitreous china wall mounted urinal (Code: 705427) including 38mm chromium plated domical grating (Code:8787Z0) and chromium plated back inlet spreader (Code: 7054Z2), flush valve, flush pipe and fittings (by others ), fixed on and including two hanger brackets (Code: 8127Z0).	No	2	
25	Cobra Watertech exposed urinal chrome plated Junior Econo Flushmaster flushvalve (code: KF8.112) with non-hold open feature, galvanised steel undertile box with stainless steel faceplate and chasis, palm press button, 22mm diameter copper urinal tailpipe and 20mm "Ball-o-Stop" control inlet. Cobra Watertech 40mm Chrome plated deep seal bottle trap with outlet for 50mm PVC (365/50).	No	2	
<b><u>STAINLESS STEEL (340 (18/10)) WASH HAND BASINS, WC SUITES, ETC</u></b>				
<b><u>The following in wash hand basins fixed complete in position and connected to services (refer to 5 Star Specification : 2012)</u></b>				
26	Franke Grade 304 (18/10) 1,2mm thick stainless steel model Oval A wash hand basin size 420 x 340mm with pressed bowl, with two tapholes, with 100mm radius apron and 50mm high splashback, (Code 357456) excluding waste four times bolted to wall with M6 expansion bolts.	No	8	
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27	Franke 1,2mm Grade 304 18/10 stainless steel HDTX850 heavy duty combi unit (code: 356151/2 or 3), size 390 x 799 x 955mm high with integrated wash basin with 40mm waste outlet and 150mm high splashback, plumbing fittings (code: 825010) including Cobra basin valve (code: KM1-00F), Cobra wc valve (code: FJ 4-203F), Walcro flexible hose and Walcro 15mm spout, pan positioned (as shown on drawing), toilet roll holder, 40mm waste outlet and stainless steel "P" trap to WC pan, connected to cold water supply, galvanised mild steel security frame size 525 x 950mm high (code: 356017) with 6No.13mm diameter anti-escape bars built into wall, pedestal fixed to wall with 8mm threaded rods, compliant with SABS 1733:2002.	No	4
28	Cobra Watertech Carina 15mm chrome pillar tap (Code: 114CA-15) with aerator outlet and flanged backnut, manufactured in accordance with SANS 226:2004 Type 1 (BS 5412). Includes: hot and cold indice, 1/2" BSP male inlet, flanged backnut, streamline outlet for flow aesthetics, and 1/2" heavy pattern/low resistance for low pressure or high water demand installations.	No	14
29	Cobra Watertech 40mm Chrome plated unsloped basin waste union (no chain or stay) (317-40). Includes: 70mm diameter flange, 45mm long shank, and 1 1/2" BSP male outlet connection.	No	8
30	COBRA 365/50 bottle trap, 50mm, pvc outlet Includes: a high specification polymer-blend body component, 75mm deep re-seal and adjustable telescopic pipe, and 1 1/2" female inlet x Ø 50mm outlet for PVC tube.	No	8
31	COBRA angle regulating valves – COBRA 232/350. Includes: sliding wall flange, and 1/2" BSP male inlet x 1/2" BSP male outlet.	No	2
32	Cobra Watertech 15mm chrome plated pillar tap (Code: 505-21B/p-WS/6-nolime) with blue indice and elbow action lever, manufactured in accordance with SANS 226:2009 Type 2 (BS 5412).	No	1

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33	Cobra Watertech 15mm chrome plated pillar tap (Code: 505-21R/p-WS/6-nolime) with red indice and elbow action lever, manufactured in accordance with SANS 226:2009 Type 2 (BS 5412).	No	1
<b><u>The following in WC suites fixed complete in position and connected to services (refer to 5 Star Specification : 2012)</u></b>			
34	"OVE Model OSPA1" or other approved vandal proof wc pan (concrete filled) manufactured from 1,2mm grade 304 AISI (18/10) stainless steel; fully welded and polished to a no. 4 satin finish; 485 x 390 x 435mm high with circular flushing rim and bowl, full flow "P" trap, 38mm diameter supply flush pipe; both sufficient length to protrude the wall. (All connections to be outside). Integral 35mm wide fixing flange to bottom sides and top 7 times bolted to wall and floor complete with expanded metal mesh for mechanical bond for plaster/screed to the pan flange (POL2012/S1)	No	4
35	"WALCRO No 104" or other approved brass back entry non hold open toilet flush valve with integral vacuum breaker and modified push-rod connector, complete with 38mm diameter flushpipe, bend and pan connector (POL2012/S1)	No	4
36	Prison type "ECONOFLUSH" as type KF3.404 including elbow, straight pipe and pan connector (POL2012/S1)	No	4
<b><u>Sinks, washtroughs, etc.</u></b>			
37	Kwikot model BHA900X Single centre bowl special Post Formed sink size 900x595mm manufactured in 1,2mm grade 304 Stainless steel, bowl size 410x350x150mm deep with a 12mm splashback at rear complete with 1 no:- PVC combination overflow fitting with anti theft plug and Laveteria back entry spreader to fitted to bowl on right hand side.	No	2

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38	Cobra Watertech 15mm Chrome plated one Hole sink mixer with overarm swivel spout, Mounting kit and Flexible Connection Tubes (3396/ST). Includes: aerated swivel outlet, 1/2" BSP female inlets, mounting kit, and 2 x 1/2" female iron 400mm long flexible inlets. SANS 226 Type 2, DZR brass.	No	2
39	Cobra Watertech 40mm Chrome plated unslotted basin waste union (no chain or stay) (317-40). Includes: 70mm diameter flange, 45mm long shank, and 1 1/2" BSP male outlet connection.	No	2
40	COBRA 309-32 "anti-theft" chrome-plate plug Includes: 72mm spindle and spindle-locking tab, and 39mm diameter plug.	No	2
41	COBRA 365/50 bottle trap, 50mm, pvc outlet Includes: a high specification polymer-blend body component, 75mm deep re-seal and adjustable telescopic pipe, and 1 1/2" female inlet x Ø 50mm outlet for PVC tube.	No	2
42	COBRA angle regulating valves - COBRA 832/350F. Including 350mm braided flexi hose.	No	4
43	50 mm Deep seal "P" or "S" trap	No	2
	<b><u>Slop Hopper, etc.</u></b>		
44	"Kwikot" Slop Hopper with cowling size 535x685x510mm high manufactured from 304(18/10) stainless steel 1,2mm thick with a 100mm high integral splash back to rear and both sides, Model (HDGX -SLOP 1 for floor and HDGX -SLOP 2) for wall connection. The cone has a integral flushing rim and 100mm Ø stainless steel "S" or "P" trap .Unit fitted with a back entry flush pipe for a standard flush valve. Unit fitted with a hinged bucket grid manufactured from 10mm diameter 304 (18/10) complete with two 40x40mm square stainless steel wall mounting gallows brackets fixed to wall with 4 of anchor bolts. Slop hopper supplied complete with floor mounting bracket as per manufacturers specification	No	1
45	Cobra FJ2.210 Flushmaster Junior flushvalve set	No	1

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46	Cobra Watertech Stella 15mm chrome Chrome plated extended bibtap (3306ST/EXT-15). Includes: hot and cold indices, 1/2" BSP male inlet, sliding wall flange, and flow straightener for flow aesthetics.	No	2		
	<b><u>TAPS, VALVES, ETC.</u></b>				
	<b><u>Brass</u></b>				
47	15mm Stopcock	No	4		
48	22mm Stopcock	No	4		
	<b><u>ELECTIC WATER HEATERS</u></b>				
49	150 Litre horizontal high pressure electric water heater	No	3		
50	Drip tray to suit 150 litre horizontal geyser with 100mm high upstand with top edge bent over all round including 50mm diameter overflow pipe 3000mm long approximately 3m above ground level	No	3		
51	"FRANKE" or other approved stainless steel 7.5 litre Hydro boil complete	No	3		
	<b><u>SCRUBBING/POLISHING MACHINE</u></b>				
52	Provide a budgetary allowance of Thirty Two Thousand Rand (R32'000.00) for Scrubbing and Polishing Machine for Cleaner complete			Item	32 000.00
53	Allow for profit and attendance			Item	
	<b><u>SANITARY PLUMBING</u></b>				
	<b><u>PIPES, ETC.</u></b>				
	<b><u>uPVC pipes</u></b>				
54	50mm Pipes	m	69		
55	110mm Pipes	m	14		
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<u>Extra over uPVC pipes for fittings</u>		
56	50mm Bend	No 46
57	110mm Bend	No 14
58	50mm Junction	No 19
59	110mm Pan connector	No 14
60	50mm Access bend	No 23
61	50mm Access junction	No 19
62	110mm "GI Two-way" vent valve	No 14
<u>WATER SUPPLIES</u>		
<u>Copper pipes (class 460/2) with soldered joints</u>		
63	15mm Pipes	m 210
64	22mm Pipes	m 181
<u>Extra over copper pipes (class 460/2) for capillary fittings</u>		
65	15mm Fittings	No 195
66	22mm Fittings	No 94
<u>Extra over copper pipes for capillary soldered fittings</u>		
67	15 mm Fittings	No 195
68	22 mm Fittings	No 94

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**LAGGING**

**25mm Thick fibre glass insulation wrapped around pipes and fittings including straps, etc.**

69	15mm Pipes	m	109
70	22mm Pipes	m	124
<b><u>Taps, valves, etc.</u></b>			
71	15 mm Brass bibcock with hose connection and 1/2" threaded outlet	No	2
72	25mm Brass stop valve	No	3

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**FIRE APPLIANCES, ETC.**

**The following in fire hose reel, etc**

73	25mm Galvanised steel pipe fixed to wall with U-bolt brackets	m	100
74	Female adaptor - 7030 32 x 1	No	4
75	25mm Brass quick-coupling valve as model 44RC	No	4
76	SH-2 Hose swivel	No	4
77	100mm Diameter uPVC sleeve not exceeding 250mm long	No	4
78	Hose reel complete with 30m plastic hose, chromium plated stopcock, shutt-off nozzle and wall bracket	No	4

**TESTING, ETC.**

79	Provide all necessary apparatus, water, etc. for and test the internal drainage system to the satisfaction of the Representative/Agent		Item
80	Provide all necessary apparatus, water, etc. for and test the internal hot and cold water and fire reticulation to the satisfaction of the Representative/Agent		Item

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	<b><u>BILL NUMBER 16</u></b>			
	<b><u>GLAZING</u></b>			
	JBCC Work Group No. 150			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For Preambles see "PW371 - Specification of Materials and Methods to be used"			
	-----			
	<b><u>GLAZING TO STEEL WITH PUTTY</u></b>			
	<b><u>4mm Obscure glass:</u></b>			
1	Panes not exceeding 0,5m <sup>2</sup> "LI"	m2	6	
	<b><u>4mm Clear float glass:</u></b>			
2	Panes not exceeding 0,5m <sup>2</sup> "LI"	m2	7	
3	Panes exceeding 0,5 m <sup>2</sup> and not exceeding 2m <sup>2</sup> "LI"	m2	6	
	<b><u>TOPS, SHELVES, DOORS, MIRRORS, ETC.</u></b>			
	<b><u>400 x 700mm Polished bevel-edge mirror fixed to wall with dome mirror screws</u></b>			
4	Mirror 500 x 900 mm high with four screws	No	17	
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	Glazing			
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NUMBER 2</u></b>			
	<b><u>BILL NUMBER 17</u></b>			
	<b><u>PAINTWORK</u></b>			
	JBCC Work Group No. 152			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For Preambles see "PW371 - Specification of Materials and Methods to be used"			
	-----			
	<b><u>PAINTWORK, ETC TO NEW WORK</u></b>			
	<b><u>ON FLOATED PLASTER</u></b>			
	<b><u>Prepare and apply one undercoat (UC1) of Plascon plaster primer and two coats Plascon Velvaqlo "Brocken White" (VLO 26) wall paint or other approved</u></b>			
1	On internal walls "LI"	m2	1 182	
	<b><u>Prepare and apply one undercoat and two coats Wall and All paint, applied strictly according to manufacturer's specifications or other approved</u></b>			
2	On external walls "LI"	m2	681	
	<b><u>Prepare for and apply one acrylic fillercoat and two coats teflon based durable low sheen pure acrylic paint with good scrub resistance</u></b>			
3	On concrete ceilings "LI"	m2	96	
	<b>Carried to Collection</b>			
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	<b>QUANTITY SURVEYORS</b>			
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<u>ON FIBRE CEMENT</u>				
<u>One coat universal plaster primer and two coats PVA acrylic paint</u>				
4	On ceilings "LI"	m2	651	
5	On fascias and barge boards "LI"	m2	485	
6	Accoustic pannels "LI"	m2	79	
<u>One undercoat detergent and paint one coat "Eggshell" paint or other approved</u>				
7	On window cills not exceeding 300mm wide "LI"	m	37	
<u>PAINT ON METAL</u>				
<u>One coat Glatex 8 metal primer (PL3) and apply two coats Glatex 8 finishing coats or other approved, on:</u>				
8	Doors "LI"	m2	8	
9	Door frames "LI"	m2	48	
10	On cell and safe door and frames "LI"	m2	32	
11	On gates, grilles, burglar screens, balustrades, etc. (both sides measured over the full flat area) "LI"	m2	121	
12	On steel columns, beams, base plates, etc "LI"	m2	596	
<u>ON WOOD</u>				
<u>One coat "Spick &amp; Span Oil Based Wood Primer (UC2)" under coat and two coats "Plascon Velvagio Polyurethane Velvet Enamel (VLO)" paint or other approved</u>				
13	On doors "LI"	m2	39	
<u>Three coats polyurethane clear varnish</u>				
14	On doors "LI"	m2	39	
15	Skirtings and mouldings not exceeding 300mm girth "LI"	m	62	
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**PREVIOUSLY PAINTED SURFACES**

**General Notes:**

All surfaces to be perfectly dry & in a fit state to receive paint before any application commences

**PAINTWORK, ETC TO EXISTING WORK**

**ON PLASTER, FIBRE CEMENT, ETC.**

Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with suitable filler and finished smooth.

**Prepare and apply one undercoat (UC1) of Plascon plaster primer and two coats Plascon Velvagio "Brocken White" (VLO 26) wall paint or other approved**

16	On internal walls "LI"	m2	1 134
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**Prepare and apply one undercoat of Plascon plaster primer and two coats Plascon Wall and all, wall paint or other approved**

17	On external walls "LI"	m2	625
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**Clean down and apply one undercoat detergent and paint one coat "Eggshell" paint or other approved**

18	Window cills "LI"	m	45
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**Prepare and apply one coat universal plaster primer and two coats PVA acrylic paint**

19	Acoustic pannels "LI"	m2	59
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**ON CONCRETE**

**Prepare for and apply one acrylic fillercoat and two coats teflon based durable low sheen pure acrylic paint with good scrub resistance**

20	On concrete ceilings "LI"	m2	71
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**Carried to Collection**

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**ON METAL**

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal. Care is to be taken when rubbing down previously finished galvanised steelwork, not to damage or remove the galvanising.

**Prepare, removing all rust to bright metal, spot priming bare metal surfaces with one coat Glatex 8 metal primer (PL3) and apply two coats Glatex 8 finishing coats or other approved**

21	Door frames "LI"	m2	33
22	On windows with burglar proofing (both sides measured) "LI"	m2	69
23	On gates, grilles, burglar screens, balustrades, etc. (both sides measured over the full flat area) "LI"	m2	15

**ON WOOD**

Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks or crevices shall be primed, filled with suitable filler and finished smooth.

**Prepare and apply one coat wood primer, one coat universal undercoat and two coats 100% silthane silk paint**

24	450mm Wide wooden bench with steel angle support "LI"	m	18
25	Doors "LI"	m2	83

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6	Roofcovering	77	
7	Carpentry and Joinery	90	
8	Ceilings, Partitions & Access Flooring	93	
9	Floor Coverings	96	
10	Ironmongery	106	
11	Metalwork	116	
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13	Plastering	126	
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**SECTION 3:**

**EXTERNAL WORK**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NUMBER 3</u></b>			
	<b><u>BILL NUMBER 1</u></b>			
	<b><u>SITE WORKS AND PAVING (PROVISIONAL)</u></b>			
	<b><u>GENERAL EARTH WORKS (PROVISIONAL)</u></b>			
	JBCC Work Group No 104.			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For Preambles see "PW371 - Specification of Materials and Methods to be used"			
	-----			
	<b><u>SITE CLEARANCE, REMOVAL OF TREES, ETC.</u></b>			
	<b><u>Site Clearance :</u></b>			
1	Clear area of site of all rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200 mm girth, bush, etc., including reclearing of any subsequent vegetation growth during the contract period as considered necessary by the Representative and removing all material from site, As item 1 page 124	m2	2 135	
	<b><u>Taking out and removing, grubbing up roots and filling in holes</u></b>			
2	Indigenous tree exceeding 200mm and not exceeding 500mm girth	No	3	
3	Indigenous tree exceeding 500mm and not exceeding 1000mm girth	No	2	
4	Indigenous tree exceeding 1000mm and not exceeding 1500mm girth	No	3	
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	Site works and Paving (Provisional)			
	<b>RUBIQUANT</b>			
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<b><u>ROADS, PAVINGS, ETC.,</u></b>					
<b><u>EXCAVATION, FILLING, ETC</u></b>					
<b><u>Excavation under paving not exceeding 300mm deep</u></b>					
5	Under floors	m3	1 344		
<b><u>Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u></b>					
6	150mm layers of G5 Material and compacted to 95% Mod, The G5 should be the form of a sugar dolerite, decomposed granite or decomposed sandstone	m3	810		
7	150mm layers of G7 Material and compacted to 95% Mod, The G7 should be the form of a sugar dolerite, decomposed granite or decomposed sandstone	m3	771		
<b><u>Base course constructed of filling supplied by the Contractor:</u></b>					
8	Stabilisation of sub-base or in-situ material with equal parts of Ordinary Portland Cement and road lime, evenly worked into filling material, including wetting and curing to the satisfaction of the Engineer.	m3	427		
<b><u>Compaction of surfaces:</u></b>					
9	Compaction of ground surface under pavings, roads, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density and 100% Mod AASHTO for sand.	m2	2 135		
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	<b><u>Coarse river sand filling supplied by the Contractor</u></b>		
10	Under paving	m3	362
	<b><u>WEED KILLER</u></b>		
	<b><u>Approved weed killer in strict accordance with manufacturers instructions</u></b>		
11	Under paving, etc	m2	2 548
	<b><u>PAVING</u></b>		
	Paving to be laid in accordance with SABS 1200 MJ, SABS 1058 and the Concrete Masonry Association's specifications		
	<b><u>Paving of 50 mm clay paving bricks of approved colour with butt joints on 20 mm thick river sand bed (elsewhere measured)</u></b>		
12	Paving in herringbone bond pattern to falls	m2	413
13	Extra over for straight edge blocks	m	351
	<b><u>Paving of 80 mm concrete paving bricks of approved colour with butt joints on 20 mm thick river sand bed (elsewhere measured)</u></b>		
14	Paving in stretcher bond to falls	m2	2 135
	<b><u>PRECAST KERBS</u></b>		
	<b><u>Precase concrete finished smooth on exposed surfaces including bedding, cutting and pointing:</u></b>		
15	Kerb (SABS927 fig 6) with 45 x 125mm unreinforced concrete footing, 250 x 250mm triangular concrete haunching at back of each joint and 300 x 150mm concrete infill in front with cement grouted joints, including excavation, backfilling, etc.	m	670
16	Ditto, Kerb (SABS 927 fig 6) but circular on plan not exceeding 4m radius formed with short lengths of straight kerb.	m	62

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**RUBIQUANT**  
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<b><u>RETRO-REFLECTIVE ROAD SIGNS, ETC.</u></b>				
	Road signs and road markings shall conform to the requirements given in the South African Road Traffic Manual and relevant SABS specifications.			
	The rate tendered for road signs shall cover the cost of supplying and erecting the completed signboard supports, face, frame and fixing brackets and shall include the cost for providing retro-reflective backgrounds, symbols, characters, legends and borders of the type specified in the South African Road Traffic Manual. The tendered rate shall include for excavations, backfilling and concreting of sign supports.			
17	900mm Diameter regulation "DISABLED PARKING SYMBOL" sign (R323) in accordance with S.A.B.S. standard fitted and fixed on creosoted pole, 2 700mm high bedded in 450 x 450 x 600mm deep concrete footing, included all necessary excavation, etc.	No	3	
<b><u>STORMWATER CHANNELS</u></b>				
<b><u>Stormwater channels, V drains</u></b>				
18	20 MPa Concrete open surface stormwater channel 1 000mm wide and 85mm thick with V-shape channel 1 000mm wide and 75mm deep extreme formed in same, finished smooth on exposed faces with angles slightly rounded, laid to falls in lengths not exceeding 2m, jointed in 3:1 cement mortar including excavations, necessary formwork including 150mm deep selected filling underneath and compacting to a density of 93% of the Mod. AASHTO Maximum density	m	278	
19	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m2	333	
20	Extra over 1 000mm wide channel for angles, intersections, ends, dressing into sides of catchpits, etc.	No	18	
21	Triangular shaped stormwater channel outlet 1m wide at head, 1.5m wide at base and 1m long at sides formed of 85mm thick concrete V-shaped base including all excavations, formwork and six 150 x 150mm broken bricks or stones protruding 150mm high at base of the spill basin	No	3	
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<b><u>GULLIES</u></b>					
22	110 mm uPVC gulley complete with and including 380 x 380 x 170mm precast concrete gulley surround on 75mm Class C concrete base abd fitted with 187mm diameter uPVC grating.	No	1		
<b><u>INSPECTION CHAMBERS, MANHOLES, ETC.</u></b>					
<b><u>Sumps, catchpits, inspection chambers, etc (gratings and covers elsewhere):</u></b>					
<b><u>Gratings, covers, etc:</u></b>					
23	600 x 600 x 60kg Dished cast iron grating set in mortar	No	1		
<b><u>The following in soakaways, french drains, etc:</u></b>					
24	Excavate not exceeding 2m deep.	m3	7		
25	Unreinforced concrete 15Mpa in base.	m3	3		
26	150mm Thick concrete block wall.	m2	4		
27	Selected rubble filling.	m3	3		
28	250 Micron plastic waterproof membrane laid over soakaway.	m2	10		
29	Risk of collapse to sides of soakaway excavations not exceeding 1,5m deep.	m2	12		
30	Extra over soakaway excavations for carting away surplus material from excavations to a dumping site to be located by the contractor.	m3	2		
31	Earthfilling obtained from excavations or stock piles on site compacted to 93% backfilled to soakways.	m3	2		
<b>Carried to Collection</b>					
Section No. 3 Bill No. 1 Site works and Paving (Provisional) <b>RUBIQUANT QUANTITY SURVEYORS</b>					R

**CONCRETE APRONS**

**The following in aprons**

32	Level and compact earth under apron slab.	m2	109
33	Unreinforced concrete (20MPa) in apron slab	m3	16
34	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m2	109
35	Wood float finish to top of concrete surface bed.	m2	109
36	Half rounded angle on edge of concrete aprons.	m	91
37	Rough formwork to edge of concrete not exceeding 300mm high.	m	182
38	10mm Expansion joints of 10mm Jointex filler board between vertical concrete surfaces not exceeding 300mm high.	m	9
39	Ditto, between vertical concrete surfaces and brickwork surfaces not exceeding 300mm high	m	91
40	Rake out softboard 25mm deep and seal expansion joints " Thioflex 600" polysulphide sealing compound including backing cord, bond breaker, primer, etc, in aprons.	m	100

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<b><u>ALUMINIUM FLAGPOLE</u></b>				
<u>The following in a 8,85m high Standard Government type Aluminium Flagpole as "Aluweld" or other approved and erected on 600 x 600 x 800mm deep Class C concrete base, incl excavations, carting away, etc.</u>				
41	8,85mm High flagpole comprising 130mm and 60mm outside diameter aluminium tubing tapered by way of an aluminium cone casting, welded and complete with spherical top cap, two pulleys, two cleats, two halyards (ropes), four flagrope clamps, swivel type base with four M20 x 550mm long anchorbolts for fixing flagpole baseplate including concrete base (Base size 1500 x 1500 x 550mm deep)	No	2	
<b><u>LANDSCAPING</u></b>				
<b><u>Ground preparation</u></b>				
42	Cultivation and preparation of areas to be planted	m2	4 380	
<b><u>Topsoil, compost, lime and fertilizer</u></b>				
43	Topsoil supplied by the contractor in plant beds, grassed areas and holes for trees, shrubs, etc	m3	657	
44	"Kikuyu" sods approximately 80mm thick	m2	4 380	
<b><u>SOFT LANDSCAPING</u></b>				
<b><u>SOFT LANDSCAPING</u></b>				
45	Allow the PC amount of Two Hundred Thousand Rand (R 200 000.00) for Soft Landscaping complete	Item		200 000.00
46	Allow for profit and attendance	Item		
<b><u>MOBILE UNITS</u></b>				
<b><u>MOBILE UNITS</u></b>				
47	Allow the PC amount of One Million Five Hundred Rand (R 1 500 000.00) for Mobile Units complete	Item		1 500 000.00
48	Allow for profit and attendance	Item		
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No**

**Quantity      Rate      Amount**

**SECTION NUMBER 3**

**BILL NUMBER 2**

**WATER SUPPLY AND FIRE SERVICES  
(PROVISIONAL)**

JBCC Work Group No. 148

**WATER SUPPLIES**

**Note:**

Rates for piping, etc., have to include all adaptors, flanges, etc.

**General**

Where ever possible, abridged descriptions have been used for those items in this Bill which appear under the main trade headings in previous/subsequent Bills. The full descriptions of these items in the Preambles, as referred to above, to the various trade bills are to, and do apply equally to this Section.

**Reference**

Special reference is made to SABS 1200 specifications for civil works.

Special reference is made to Specifications and details of Department of Public Works Drainage Detail (December 1998).

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**RUBIQUANT  
QUANTITY SURVEYORS**

**Protection of existing services**

The contractor must make allowance against the relevant items for the following:

- (a) Necessary care to be taken when excavating near existing services in or across the path of excavations.
- (b) Protection and maintaining such service in operation by means of temporary support or shoring as necessary.
- (c) Delays and disruption of the progress of the work due to the existence of the service.
- (d) Repairs necessitated by damage caused by the Contractor.

**SABS specifications references**

Where reference is made to SABS 1200 specifications (all sections) it will be deemed to exclude clause 8 "Measurements and Payment".

**Nature of ground**

The tenderer must acquaint himself with the material to be excavated in and are requested to study the Geotechnical Survey Report attached to Part C4: Site Information of the procurement document

**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.

**Prescribed tests**

All prescribed tests are to be executed by an approved, accredited laboratory

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**Concrete pipes**

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

**Polypropylene pipes**

Polypropylene pipes 42 mm diameter and under shall be seamless copper coloured class 16 pipes jointed with brass compression fittings as designed for use with copper pipes as stated.

Pipes shall be firmly fixed to walls etc. with coloured nylon snap in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.

All pipe diameters are to match sizes as utilised for copper pipes.

**Polyethylene pipes**

Polyethylene pipes 75 mm diameter and under up to 42 mm shall be seamless copper coloured class 16 Type IV HDPE pipes jointed with polymer compression fittings.

Pipes shall be firmly fixed to walls etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.

All pipe diameters are to match sizes as utilised for copper pipes.

**C.O.D. Fibre Cement Pressure Pipes**

Pipes shall be jointed with "Triplex" couplings. A lubricant (soft soap) is to be used in connecting the couplings to the pipe or fittings. The couplings are to be unsupported on the bedding when pipes are layed.

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**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.

**Copper pipes**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.

**Reducing fittings**

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

**Exposed concrete surfaces**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc. shall be finished smooth with plaster.

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the Quantity Surveyor/Engineer thereof prior to backfilling.

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

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**Saddles**

Saddles to be the Magnum uPVC type with stainless steel bolts and screw pieces complete with Talbot lockable clamp and compression external screw-thread adaptor.

**uPVC pressure pipes and fittings**

Pipes for water supply shall be of the class stated.

Pipes of 40 mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 50 mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all outer fittings shall be cast iron, all with similar push-in type joints

**Exposed concrete surfaces**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc. shall be finished smooth with plaster

**Excavations**

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

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

**Carried to Collection**

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**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturer's instructions.

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

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

Pipe trenches etc. shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200

- DB: Earthworks (Pipe trenches)

Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1., 5.1 to 5.3 and 7 of SABS 1200

- LB: Bedding (Pipes)

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

**Steel pipes, fittings and specials**

**Pipes of Nominal Bore up to 150 mm:**  
Substitute "screwed" in L3.4.2 with "flanged".

**Pipes of Nominal Bore over 150 mm:**  
Add the following:

"All mild steel pipes must be manufactured from Grade B steel with minimum plate thickness of 6,0 mm except where specified otherwise."

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Water supplies (Provisional)  
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**Corrosion protection**

**Cast Iron Pipes and Fittings:**

Substitute L3.9.1 with the following:

"All internal surfaces shall be grit blasted to SA 2½ standard and then coated with Copon EP 2300 epoxy paint to a minimum thickness of 350 micron."

**Joints, Bolts, Nuts and Washers:**

Substitute L3.9.5 with the following:

"All joints, bolts, nuts and washers shall be cadmium-plated or stainless steel."

**Rates**

Rates for pipe items are to be all inclusive prices and rates (except where allowed for elsewhere) are for the completed work as described in the respective items and shall include all labour, pipes, **bedding and filling complete in layers not exceeding 300 mm (unless otherwise specified) and compacted** all sundry work, equipment cost, guards, lighting, profit and maintenance.

Under paved areas and buildings the sand bedding and filling must be stabilised with 4 % cement.

Rates for inspection chambers, etc., are to be all inclusive prices and rates (except where allowed for elsewhere) for the completed work as described in the respective items and shall include all labour, pipes, concrete-floors and slabs, brickwork, plastering, compacting, all sundry work, equipment cost, guards, lighting, profit and maintenance.

The Contractor is referred to Drawing no's 208640VSO/15 to 17 annexed to these Bill of Quantities.

**Pipework, fittings, etc.**

All underground steel pipes and fittings, after installation, shall be protected against corrosion according to PSL 1.2

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**Maintenance period**

The maintenance period for the following work shall be 12 calendar months.

**High density polyethylene class 16 piping complying with SABS 533 Part III**

1	25 mm Pipes laid in and including trenches not exceeding 1000 mm deep	m	15
2	32 mm Pipes laid in and including trenches not exceeding 1000 mm deep	m	5
3	40 mm Pipes laid in and including trenches not exceeding 1000 mm deep	m	5
4	50 mm Pipes laid in and including trenches not exceeding 1000 mm deep	m	40
5	63 mm Pipes laid in and including trenches not exceeding 1000 mm deep	m	78

**The following in HDPE compression (16 Bar) fittings**

6	25 x 20 Reducer	No	6
7	25 x 90° Elbow	No	4
8	32 x 20 Reducer	No	3
9	32 x 90° Elbow	No	3
10	32 x 32 Equal Tee	No	1
11	40 x 90° Elbow	No	2
12	40 x 32 Reducer	No	1
13	40 x 22 Reducer	No	2
14	50 x 50 Euqual Tee	No	2
15	50 x 90° Elbow	No	6
16	50 x 32 Reducer	No	3

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17	63 x 63 Euqual Tee	No	8
18	63 x 90° Elbow	No	15
19	63 x 50 Reducer	No	1
<b><u>The following in valves, etc</u></b>			
20	32mm Stainless steel sluice/gate valve with teflon seat	No	1
21	35mm Isolating valve	No	2
22	35mm In-line strainer	No	1
23	35mm Non-return valve	No	1
24	35mm adjustable pressure reducing valve set to 4.0BAR	No	1
25	50mm Stainless steel sluice/gate valve with teflon seat	No	3
26	54mm Non-return valve	No	2
27	54mm In-line strainer	No	2
28	54mm Isolating valve	No	6
29	54mm adjustable pressure reducing valve set to 4.0BAR	No	1
30	63mm Isolating valve	No	5
<b><u>The following in Valve Chamber</u></b>			
31	Standard valve chamber size 337 x 337 x 390mm high comprising of Class 25/19 concrete footing and collar, with 200mm diameter Class B COD fibre cement pipe vertically into ground and covered with Besaans-du Plessis size 115mm diameter x 102 Type 7 stopcock box cast into concrete collar	No	5
<b><u>Sundries</u></b>			
32	Cut into existing HDPE pipe in ground and connect new 50mm HDPE water pipe	No	1.00

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**BOREHOLE**

**Borehole**

33 Allow the PC amount of Two Hundred and Sixty Thousand Rand (R 260 000.00) for Borehole complete

Item 260 000.00

34 Allow for profit and attendance

Item

**TESTING :**

35 Allow for testing the whole of the water reticulation system and for any re-testing necessary after taking out and replacing any defective work to the satisfaction of the Representative.

Item

**EMERGENCY WATER TANK**

36 Galvanised steel tank (4x3x1 high module Panels) on 9m high galvanised steel stand (elsewhere measured) complete in accordance with CKS 114 including 100 mm diameter float valve series 7354 according to VOSA

Item

37 Supply, deliver to site and erect 9 m high galvanised steel tank stand for the abovementioned tank, complete with side ladder, bearers, excavations, backfill, formwork all in strict accordance with the necessary safety acts, etc.

Item

38 Galvanised steel tank (6x5x3 high module Panels) on ground level complete in accordance with CKS 114 including 100 mm diameter float valve series 7354 according to VOSA

Item

39 Pretreatment Galvanised steel tank (4x4x4 high module Panels) on ground level complete in accordance with CKS 114 including 100 mm diameter float valve series 7354 according to VOSA

Item

**REINFORCED CONCRETE**

40 Concrete base and stub columns for water tank m3 19

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**REINFORCEMENT (Provisional)**

**Mild steel reinforcement**

41	8mm Diameter bars	t	0.23
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**High tensile steel reinforcement**

42	12mm Ditto	t	0.91
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43	16mm Ditto	t	1.14
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**WATER SUPPLIES TO IRRIGATION SYSTEM**

44	Provide an amount of R100 000.00 (One Hundred Thousand Rand) for Irrigation system with JoJo tanks Pump etc	Item	
			100 000.00

45	Profit and attendance on above-mentioned item	Item	
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NUMBER 3</u></b>			
	<b><u>BILL NUMBER 3</u></b>			
	<b><u>SOIL DRAINAGE (PROVISIONAL)</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	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 other approved may be used with prior approval from the architect			
	JBCC Work Group No. 146			
	<b><u>EXISTING MANHOLE</u></b>			
1	Break into existing manhole, build in pipe as necessary, bench out in connection to the existing soil drainage system with and including all excavations, material and labour to the approval of the Representative.	No	1.00	
	<b><u>REPAIR OF SEWER INFRASTRUCTURE</u></b>			
	<b><u>Sewer pipe repairs, all pipe and fittings to be checked with Engineer before installing</u></b>			
	<b><u>Free Flow uPVC drain pipes including bedding, backfilling and compacting of pipe trenches</u></b>			
2	110mm Pipe and excavations not exceeding 1m deep	m	97	
3	110mm Pipe and excavations exceeding 1m and not exceeding 2m deep	m	34	
	<b>Carried to Collection</b>			R
	Section No. 3 Bill No. 3 Soil Drainage (Provisional) <b>RUBIQUANT QUANTITY SURVEYORS</b>			

<b><u>Extra over Free Flow uPVC pipe for fittings</u></b>				
4	110mm Bend	No	12	
5	110mm Access bend	No	23	
6	110mm Access junction	No	7	
7	110mm Rodding eye	No	11	
8	110mm Gulley P-trap	No	5	
<b><u>Sundries</u></b>				
9	15MPa/19mm Mass concrete encasing around 110mm horizontal drain pipe including all necessary formwork	m	12	
<b><u>Work to existing</u></b>				
10	Excavate in earth not exceeding 2m deep for and remove existing 110mm diameter drain pipe and fittings including backfilling, compaction, etc	m	131	
<b><u>Sundries</u></b>				
11	Extra over excavations to trenches, holes, etc., for excavations in soft rock	m3	4	
12	Ditto, but hard rock.	m3	4	
13	Imported sand in bedding and surround to pipework well compacted in layers, including any additional excavation, risk of collapse, etc	m3	25	
14	Keeping excavations free of water		Item	
<b><u>Precast concrete circular manholes</u></b>				
15	Standard precast manhole, not exceeding 750 mm deep internally complete with precast concrete rings, cover slab, double seal cast iron manhole cover and frame (SABS 558 Type 2A heavy duty in roads and Type 8A medium duty elsewhere), unreinforced concrete footing and benching in bottom, dished down to channels and finished smooth with plaster.	No	1	
<b>Carried to Collection</b>				
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Soil Drainage (Provisional)				
<b>RUBIQUANT</b>				
<b>QUANTITY SURVEYORS</b>				

- 16 Standard precast manhole, 1 050 mm internal diameter exceeding 750 mm and not exceeding 1 000 mm deep internally complete with precast concrete rings, cover slab, double seal cast iron manhole cover and frame (SABS 558 Type 2A heavy duty in roads and Type 8A medium duty elsewhere), unreinforced concrete footing and benching in bottom, dished down to channels and finished smooth with plaster.
  
- 17 Standard precast manhole, 1 050 mm internal diameter exceeding 1000 mm and not exceeding 1 250 mm deep internally complete with precast concrete rings, cover slab, double seal cast iron manhole cover and frame (SABS 558 Type 2A heavy duty in roads and Type 8A medium duty elsewhere), unreinforced concrete footing and benching in bottom, dished down to channels and finished smooth with plaster.

No 1

No 2

**TESTING :**

- 18 Allow for testing the whole of the soil drainage system and for any re-testing necessary after taking out and replacing any defective work to the satisfaction of the Representative.

Item

**Carried to Collection**

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Item No	<u>SECTION NUMBER 3</u>	Quantity	Rate	Amount
	<u>BILL NUMBER 4</u>			
	<u>FENCING AND GATES (PROVISIONAL)</u>			
	Fencing prices are to include for site clearance and grading to even lines 1 m each side of fence line unless otherwise described, all necessary excavations in earth, risk of collapse and disposal of surplus excavated material			
	<u>DEMOLITIONS</u>			
	-WORK GROUP 102-			
	<u>Removal of existing fence</u>			
1	Take down and remove existing wire mesh fencing 2 400mm high including 300 mm flat wrapped, with post as indicated by the engineer	m	525	
2	Take down and remove existing steel palisade fencing 2 100mm high including posts as indicated by the engineer	m	125	
	<u>SITE CLEARANCE</u>			
	-WORK GROUP 104-			
3	Allow for digging up and removal of all grass, shrubs, rubbish and vegetable soil for a width of 500mm on either side of new fence line including forming 50mm high free space between underside of fence and ground surface by reducing or making up levels as required	m	525	
	<b>Carried to Collection</b>		R	
	Section No. 3 Bill No. 4 Fencing, etc (Provisional) <b>RUBIQUANT QUANTITY SURVEYORS</b>			

**METALWORK**

-WORK GROUP 136-

**SECURITY FENCING**

**Powder coated steel security fencing as per COCHRANE PRODUCTS 358 HIGH SECURITY FENCING MESH. All details and specifications to be verified with manufacturer**

"ClearVu" or other approved

4	2900mm high "Cochrane ClearVu" fence with spikes on top or similar approved, complete with bases excavations etc. according to manufacturers detail, see details at the back of the bills of quantities	m	430
5	2100mm high "Cochrane ClearVu" fence with spikes on top or similar approved, complete with bases excavations etc. according to manufacturers detail, see details at the back of the bills of quantities	m	95
6	3500 x 2900mm High "Cochrane ClearVu" or similar approved Double gate complete as per details at the back of Bill of Quantities.	No	1
7	4500 x 2100mm High "Cochrane ClearVu" or similar approved Double gate complete as per details at the back of Bill of Quantities.	No	1
8	4500 x 2900mm High "Cochrane ClearVu" or similar approved sliding gate complete on and including gate rail, stoped end, guide rollers and gate motor.	No	1
9	5500 x 2900mm High "Cochrane ClearVu" or similar approved sliding gate complete on and including gate rail, stoped end, guide rollers and gate motor.	No	1

**Carried to Collection**

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Bill No. 4  
Fencing, etc (Provisional)  
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Bill No. 4

Fencing, etc (Provisional)

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Bill No. 4

Fencing, etc (Provisional)

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**SECTION SUMMARY - External Works (Provisional)**

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- 1 Site works and Paving (Provisional)
- 2 Water supplies (Provisional)
- 3 Soil Drainage (Provisional)
- 4 Fencing, etc (Provisional)

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