	Unit	Quantity	Rate	Amount
BILL NO. 1 EARTHWORKS (PROVISIONAL)				
(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades				
Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
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Carried to Collection			R	
Bill No. 1 Earthworks (provisional)				

	Unit	Quantity	Rate	Amount
Labour lutanaire				
Labour Intensive  Riddors are to note well that specific items within those				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to				
develop, employ and provide skills through the Expanded Public Works Programme.				
Nature of ground				
The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'				
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.				
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, and dumping at registered dumpsites.				
Bulking				
No allowance has been made for bulking				
<u>Filling</u>				
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				
<u>Testing</u>				
Prices for filling are to include for all necessary density tests in accordance with the relevent section of SANS				
Carried to Collection			R	
Bill No. 1				
Earthworks (provisional)				
2				

		Unit	Quantity	Rate	Amount	
	Proximity to existing structures					
	Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.					
	SITE CLEARANCE					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m²	2 706			
	EXCAVATIONS ETC					
	Digging up topsoil					
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m²	2 706			
	EXCAVATION, FILLING, ETC. OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep					
3	Reduced levels under floors	m³	1 204			
4	Trenches	m³	2 219			
	Extra over bulk excavation in earth for excavation in					
5	Soft Rock	m³	209			
6	Hard Rock	m³	156			
	Extra over all excavations for carting away					
7	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m³	1 865			
	Risk of collapse of excavations					
8	Sides of trench and hole excavations not exceeding 1,5m deep	m²	6 566			
	Keeping excavations free of water					
9	Keeping excavations free of all water other than subterranean water	Item				
	FILLING, ETC					
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 95% Mod AASHTO density					
10	Backfilling to trenches, holes, etc	m³	544			
	Coarse river sand filling supplied by the contractor					
11	Blinding	m³	168			
	Carried to Collection			R		
	Bill No. 1					
	Earthworks (provisional)					
	3					

		Unit	Quantity	Rate	Amount	
	Imported filling of G2 material, filled and compacted to 102% Mod AASHTO density, in layers not exceeding 150mm thick, all in accordance with the relevant sections of SANS					
12	Under floors, steps, pavings, etc.	m³	507			
	Imported filling of G5 material, filled and compacted to 98% Mod AASHTO density, in layers not exceeding 150mm thick, all in accordance with the relevant sections of SANS					
13	Under floors, steps, pavings, etc.	m³	507			
	Compaction of ground surfaces					
14	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, adding G7 material where necessary and compacting to 95% Mod AASHTO density	m²	3 382			
	SOIL POISONING					
	Approved brand of anti-termite soil poison applied by a Registered Pest Control company and					
	guaranteed against termite infestation for Five (5) years in accordance with SANS 10400					
15	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	3 382			
16	To bottoms and sides of trenches etc	m²	6 597			
	TESTS					
	Prescribed tests to determine degree of compaction or other properties of ground or filling					
17	Modified AASHTO Density test	No	81			
	Carried to Collection			R		_
	Bill No. 1 Earthworks (provisional)					

BILL NO. 1 EARTHWORKS (PROVISIONAL) COLLECTION	Page No	
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Bill No. 1 Earthworks (provisional)	K	

	Unit	Quantity	Rate	Amount
BILL NO. 2 CONCRETE, FORMWORK AND REINFORCEMENT				
(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 2 Concrete, Formwork And Reinforcement			·	

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
<u>Concrete</u>				
Rates for concrete shall be deemed to include for all necessary transportation, hoisting, etc. to render a perfect, sound and stable installation all to the satisfaction of the Structural Engineer.				
Bidders are to note that delay claims related to the supply of concrete decking, reinforcment, etc. will not be entertained and are thus urged to take congnisance of quantities required and secure supply accordingly				
Cost of tests				
The costs of making, storing and testing of concrete test cubes as required under the relevent part of SANS, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately).				
<u>Formwork</u>				
Formwork to soffits of solid slabs shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described				
Formwork to soffits of slabs and beams shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
Carried to Collection			R	
Bill No. 2				
Concrete, Formwork And Reinforcement				

	Unit	Quantity	Rate	Amount
Formwork to sides of bases, pile caps, ground beams 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"				
General Notes: Temporary Support Work and Back Propping Specifications and Requirements:				
All temporary support work (formwork and backpropping, etc) is the responsibility of the Contractor's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE).  It is also the contractor's (TWE) responsibility to review				
the Principle Structural Engineers (PSE) construction layouts and develop the appropriate formwork support (back-propping, etc) execution plan.				
The formwork execution plan is to be developed in consultation with the (PSE) and final approval is required from the (PSE) prior to the execution of this plan.				
The contractor's (TWE) is also responsible to inspect and approve the erected formwork (back-propping, etc) prior to pouring concrete on site. He is also required to 'green tag' the approved formwork, indicating that it is safe to pour concrete. He is also required to 'fill in and sign off' the formwork in the on-site Health and Safety File indicating that he has inspected, approved and 'green tagged' the formwork and it is safe to pour the concrete. This 'sign-off' must occur each and every time the Contractor intends to pour any of the suspended concrete floor slabs.				
The Contractor's own appointed 'Temporary Works' structural engineer/approved competent person (TWE) must also carry his own professional indemnity (PI) insurance for 'Temporary Structural Works'. Proof of this insurance must be submitted to the Principal Agent / Project Manager for approval.				
As per Construction Regulations 2014: Temporary Formwork and Support work of OHS ACT 1993				
"A Contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use". The Contractor must submit this information inclusive of his (TWE) proof of (PI) to the Project Manager for approval.				
"A Contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose".				
Carried to Collection			R	
Bill No. 2 Concrete, Formwork And Reinforcement				

	Unit	Quantity	Rate	Amount
A contractor shall ensure that:  "All formwork and support work structures are to be adequately designed, erected, supported, braced and maintained by a competent person so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand". This is the responsibility of the Contractor's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to submit the necessary documentation confirming the above requirements to the Principal Agent / Project Manager for approval.  "All the designs of formwork and temporary support work structures are done with a close reference to the structural design drawings issued and where any uncertainty exists, the structural designer (PSE) should be consulted". The contractors (TWE) is required to submit their formwork execution plan the (PSE) for approval prior to pouring any concrete on site.  "Detailed activity specific drawings pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee". The Project Manager must ensure that the Contractor has this information available on site at all times.  "All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used". This is the responsibility of the Contractor's own	Unit	Quantity	Rate	Amount
appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to 'sign-off' accordingly.  "All formwork and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site". This is the responsibility of the PBC's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to 'sign-off' accordingly.  "The Contractor must ensure that his Temporary Works Engineer (TWE) submits a temporary works drawing or any other relevant document including construction sequences and method statements" to the (PSE) for review, comment and approval.				
Carried to Collection			R	
Bill No. 2 Concrete, Formwork And Reinforcement 9				

		Unit	Quantity	Rate	Amount
	As highlighted above, the principle building contractor (Contractor) has to develop his construction programme with due consideration for the above construction regulations and the PSE's final approval of the Contractor's temporary formwork and back-propping execution plan.  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				
	Finishing				
	Finishing the surfaces of surface beds and slabs level and smooth to receive screed, grano or any other finish are deemed to be included in the rate for the surface bed or slab.				
	Mesh reinforcement				
	Mesh reinforcement is measured net, contractor to take condideration of lapping				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)				
	15MPa/20mm concrete in:				
1	Surface blinding under footings and bases	m³	168		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES IN FOUNDATIONS (PROVISIONAL)				
	25MPa/20mm concrete				
2	Footings	m³	277		
3	Bases	m³	2		
4	Surface beds	m³	296		
	REINFORCED CONCRETE CAST ON/IN FORMWORK				
	25MPa/20mm concrete				
5	Roof slab and beams	m³	50		
	TEST CUBES				
	All tests done by the "Ready mix" supplier must be made available free of cost to the Engineer for approval. If the Engineer deems it necessary he will order supplementary tests to be done by an independent laboratory as measured below.				
6	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	267		
	Carried to Collection			R	
	Bill No. 2				
	Concrete, Formwork And Reinforcement				
	10				

		Unit	Quantity	Rate	Amount	
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a wood float					
7	Tops of beams, walls, etc	m²	208			
	Finishing top surfaces of concrete smooth with a power float					
8	Surface beds, slabs, etc	m²	2 274			
	SMOOTH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111)					
	Smooth formwork to soffits					
9	Slabs exceeding 250mm and not exceeding 500mm thick propped up exceeding 1.5m and not exceeding 3.5m high	m²	167			
	Smooth formwork to sides and soffits					
10	Beams propped up exceeding 1.5m and not exceeding 3.5m high. (Labour Intensive)	m²	234			
	MOVEMENT JOINTS ETC					
	Expansion joints with 10mm thick polystyrene backing joint filler between vertical concrete and brick surfaces					
11	Not exceeding 300mm high to edges of surface beds	m	1 425			
	Expansion joints with 10mm thick polystyrene backing joint filler between vertical concrete surfaces, including necessary formwork					
12	Not exceeding 300mm wide through columns	m	908			
	Saw-cut joints					
13	$3 \times 45 \text{mm}$ Saw-cut joints in top of concrete, reamed out to 8mm. (Labour Intensive)	m	908			
	REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)					
	Provision for mild steel and high tensile steel reinforcement					
14	High tensile steel reinforcement to structural concrete work	Tonnes	19			
15	Mild steel reinforcement to structural concrete work	Tonnes	13			
	Fabric reinforcement					
16	Ref 193 fabric reinforcement in concrete surface beds etc.	m²	2 274			
	Carried to Collection			R		
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	11					

BILL NO. 2  CONCRETE, FORMWORK AND REINFORCEMENT  COLLECTION	Page No	
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Carried to Summary  Bill No. 2  Concrete, Formwork And Reinforcement	R	

	Unit	Quantity	Rate	Amount
BILL NO. 3 MASONRY				
(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to				
be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 3 Masonry				

		Unit	Quantity	Rate	Amount
	<u>Labour Intensive</u>				
	Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
	Sizes in descriptions				
	Where sizes in descriptions are given in brick units, one brick shall represent the length and half brick the width of a brick				
	Bagged and sealed walls				
	Walls described as 'bagged and sealed' shall be deemed to include having the outer face of the inner most skin bagged with 1:6 cement and sand mixture and sealed with two coats "ABE" or other approved bitumen emulsion waterproofing coating				
	Face bricks				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	<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				
	BRICKWORK				
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)				
	Brickwork of NFX bricks (14 MPa nominal				
	compressive strength) in class II mortar				
1	One brick walls	m²	2 298		
2	L-shaped Piers	m³	6		
3	Piers	m³	2		
	Carried to Collection			R	
	Bill No. 3				
	Masonry				
	14				

		Unit	Quantity	Rate	Amount
	BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal				
	compressive strength) in class II mortar				
4	L-shaped piers	m³	12		
5	Piers	m³	10		
6	Half brick walls	m²	1 985		
7	One brick walls	m²	3 868		
8	One brick walls in beam filling	m²	144		
	MORTAR TESTING				
	Mortar testing to SANS				
9	Compressive strength 62 tests (Provisional)	No	80		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement				
10	75mm Wide reinforcement built in horizontally	m	6 536		
11	150mm Wide reinforcement built in horizontally	m	13 842		
	Prestressed fabricated concrete lintels including necessary temporary supports				
12	110 x 75mm Lintels in lengths not exceeding 3m	m	526		
	Turning pieces to lintels etc				
13	110mm Wide turning pieces	m	526		
	Galvanised hoop iron cramps, ties, etc				
14	30 x 1,2mm Wall tie 660mm long each end built into brickwork at abutting ends of walls at movement joints				
	including holing joint filler board	No	136		
15	30 x 1,6mm Roof tie 1,5m long with one end built into brickwork and other end fixed to timber	No	414		
	Air bricks etc				
16	229 x 76mm Clay vermin proof air brick	No	156		
	FACE BRICKWORK				
	"Corobrik Firelight Satin FBX" or other approved face bricks in stack bond pointed with recessed horizontal and vertical joints				
17	Extra over brickwork for face brickwork in foundations				
	(Provisional) (Labour Intensive)	m²	478		
	Carried to Collection			R	
	Bill No. 3				
	Masonry 15				
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		Unit	Quantity	Rate	Amount
18	Extra over brickwork for face brickwork	m²	2 562		
19	Extra over brickwork for face brickwork with slotted design	m²	115		
20	Extra over brickwork to piers and pilasters for face brickwork	m²	96		
21	Extra over brickwork for brick-on-edge header course bands one course high	m	260		
	FACEBRICK COPINGS, CILLS, ETC.				
	Brick-on-edge header course copings, sills, etc of face bricks, pointed with flush recessed joints on all exposed faces				
22	110mm Wide sills set sloping and slightly projecting	m	171		
	Carried to Collection			R	
	Bill No. 3				
	Masonry 16				

BILL NO. 3  MASONRY  COLLECTION		Page No	
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Bill No. 3 Masonry	Carried to Summary	R	

	Unit	Quantity	Rate	Amount
BILL NO 4				
BILL NO. 4 WATERPROOFING				
(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE				
STATED) WATERPROOFING				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of				
SANS 10400.				
SUPPLEMENTARY PREAMBLES Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Carried to Collection			ĸ	
Bill No. 4				
Waterproofing 18				

		Unit	Quantity	Rate	Amount	
	<u>Labour Intensive</u>					
	Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
	Waterproofing					
	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					
	Proprietary branded products:					
	Proprietary branded products are to be applied in strict accordance with the manufacturers instructions. Should the manufacturers instructions be found not to have been followed in any process relating to the product in relation to, but not limited to transportation, application (rates and methodology), treatment of existing surfaces etc., then all liability for such product shall be transferred to the appointed Main Contractor.					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron "Consol Plastics Brickgrip DPC" embossed damp proof course					
1	In walls	m²	200			
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape					
2	Under surface beds including turn-ups and ground beams	m²	2 274			
	O			_		
	Carried to Collection			R		—
	Bill No. 4					
	Waterproofing					
	19					

		Unit	Quantity	Rate	Amount	
	Mapelastic Smart: two-component, cementitious mortar applied to screed. Surface preparation and application as per supplier's recommendation.					
3	In walls	m²	96			
4	On shower floors	m²	1			
	WATERPROOFING TO ROOFS					
	Waterproofing to screeds (elsewhere) on exposed roof slabs comprising of one layer "abe.® Unigum MS" dual reinforced mineral surface waterproofing membrane, fully bonded by means of "torch on fusion", with 100mm side laps and 150mm end laps, all in accordance with manufacturer's Technical Specifications and Applications Manual. All surfaces to be clean dry, sound and free of oils and laitance. Waterproofing to be installed by an Approved Contractor under a ten year guarantee					
5	On roof slabs	m²	157			
6	Additional membranes, fillets and sealing at turn-ups and turn-downs	m²	39			
	One layer "Bituthene 3000" waterproofing					
7	Sealing edges to brickwork	m	582			
	PROTECTIVE ROOFING PAINT					
	Two coats "Silvakote" bituminous aluminium paint					
8	On waterproofing to roofs	m²	157			
	<u>Testing</u>					
9	Allow for flood testing of the waterproofing installation	Item				
	SEALING STRIPS, JOINT SEALANTS, ETC					
40	"Bostik" or other approved silicone sealant					
10	Under window cills in accordance with the Architect's drawings and specifications. Note that sealants around windows are included with the windows under metalwork.	m	171			
	Carried to Collection			R		
	D::::					_
	Bill No. 4 Waterproofing					
	20					

BILL NO. 4 WATERPROOFING COLLECTION		Page No	
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Bill No. 4 Waterproofing	Carried to Summary	R	

	Unit	Quantity	Rate	Amount	
BILL NO. 5 ROOF COVERINGS					
(CPAP WORK GROUP NO. 124 UNLESS OTHERWISE STATED)  ROOF COVERINGS AND CLADDINGS  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific					
specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender					
will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heights					
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.					
Carried to Collection			R		
Bill No. 5 Roof Coverings					

	Unit	Quantity	Rate	Amount	
Labour Intensive					
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
SHEETING					
The roof sheeting shall be double-interlocking concealed-fix "Klip-Lok" or other approved profile rollformed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium grade 9017 Chromodek finish. A certificate verifying compliance shall be issued by the manufacturer - Global Roofing Solutions or other approved. The profile shall be roll-formed with four ribs at centres not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap, and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. "G.R.S Klip-Lok" or other approved roof sheeting and accessories shall be obtained from an approved supplier  FINISH FOR "KLIP-LOK 700" OR OTHER APPROVED ROOF SHEETING					
0.6mm G.R.S "KLIP-LOK" or other approved aluminium Grade 9017 with a "Chromodek" finish on one side, and Eagle White paint color finish on other side.					
Carried to Collection			R		
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	Unit	Quantity	Rate	Amount
FIXING: The "G.R.S Klip-Lok" or other approved sheets shall be				
fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the sidelap and both centre ribs. The KL700 clips shall be manufactured from Aluminium and shall be fixed with the appropriate Class 5 Wafer head self-drilling/tapping screws to steel purlins (selection from installation manual).				
"SAFINTRA" OR OTHER APPROVED FLASHINGS				
Flashings specifications shall be to the "Global Roofing Solutions" or other approved standards and fixed to the sheeting with S10 brackets or, sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from the manufacturer.				
INSTALLATION				
Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, shall be replaced, at the Contractors cost. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.				
SAFETY				
The Contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.				
HANDLING AND STORAGE				
The Contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the Contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.				
Carried to Collection			R	
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Roof Coverings				
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	Unit	Quantity	Rate	Amount
INSPECTION PRIOR TO INSTALLATION				
Before commencing installation, the Contractor shall verify that the following items have been checked and replaced:				
The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted.				
b. Purlins and girts are at the correct spacing and are within the specified tolerances.				
c. The corners of the roof are square and the wall framework is perpendicular or as specified.				
d. No protrusions such as bolt heads,splice plates, cleats, etc. should appear on the face of the framework.				
e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.				
f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.				
g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the Contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.				
PROTRUSION THROUGH SHEETED SURFACES				
Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.				
GUARANTEE				
The manufacturer shall comply with ISO 9001: 2008 Quality Management System. "KLIP-LOK 700" or other approved sheeting shall be laid in strict accordance with the manufacturer's specifications by a "GRS" or other approved contractor. A written and approved five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer				
Carried to Collection			R	
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Roof Coverings				
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		Unit	Quantity	Rate	Amount
	CLEANING OF ROOF, ETC.				
	All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.  PROFILED METAL SHEETING AND ACCESSORIES				
	0.6mm "Kliplok 700" galvanised sheeting with a "Chromodek" finish on one side, and Eagle White paint color finish on other side, fixed with approved				
	fixings to purlins, all complete and in accordance with the manufacturer's recommendations.				
1	Roof covering with pitches not exceeding 25 degrees	m²	3 236		
2	Side wall flashings 462mm girth two times bent and notched on site to suit roof profile. (Labour Intensive)	m	88		
3	Cover flashings 462mm girth two times bent and notched on site to suit roof profile. (Labour Intensive)	m	15		
4	Apex flashings 462mm girth three times bent and notched on site to suit roof profile. (Labour Intensive)	m	270		
5	Roll-top type ridge cappings 462mm girth, including dressing edges into corrugations of roof covering on both sides	m	270		
6	Valley gutters (inverted roll-top ridge capping) 462mm girth	m	55		
7	Sondor corrugated pattern polycloser under ridge capping and beam filling. (Labour Intensive)	m	283		
8	Extra over roof sheet for fixing every crown at eaves. (Labour Intensive)	m	532		
9	Extra over roof sheet for fixing every crown at ridge. (Labour Intensive)	m	532		
	ROOF AND WALL INSULATION				
	4mm Alucushion foil/white sheeting on timber purlins in accordance with SANS, applied in strict accordance with manufacturers instructions:				
10	Insulation sheeting laid taut over purlins including straining wires, etc.	m²	3 236		
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	Roof Coverings				
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BILL NO. 5  ROOF COVERINGS  COLLECTION		Page No	
	Brought Forward from Page	22 23 24 25 26	
Bill No. 5	Carried to Summary	R	
Roof Coverings	27		

	Unit	Quantity	Rate	Amount	
BILL NO. 6 CARPENTRY AND JOINERY					
(CPAP WORK GROUP NO. 126 UNLESS OTHERWISE STATED)  CARPENTRY AND JOINERY  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities					
and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES					
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.					
Carried to Collection			R		
Bill No. 6 Carpentry And Joinery					

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
<u>Fixing</u>				
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				
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				
NOTE: The following is applicable in respect of roof trusses:				
The Contractor shall allow for items deemed necessary for the proper design, fabrication and erection of the roof trusses, bracing, etc.				
The materials and design of the roof construction shall be in accordance with the relevant edition of the South African National Standards and Standard Building Regulations (SBR).				
The design of trusses and permanent bracing shall be carried out under the control of registered professional engineer who shall provide the requisite certificate of stability on completion of the roof construction. All calculations and drawings, including a key plan of each building showing the position of each type of member shall be submitted timeously to the consulting Structural Engineer for his approval before fabrication is commenced.				
Prices are to include for the provision of adequate temporary bracing during construction to the approval of Consulting Structural Engineer.				
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Carpentry And Joinery				
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	Unit	Quantity	Rate	Amount
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect and/or the site before fabrication commences.				
PRETREATMENT OF TIMBER				
This service falls within the areas defined in the National Building Regulations for Treatment of timber against insect pest affecting softwood fixed permanently in all buildings.				
The Regulations require that timber be treated in terms of SANS as relevant. Bidders are to make allowance in their rates.				
ROOF CONSTRUCTION				
DESIGN, SUPPLY AND INSTALLATION OF TIMBER ROOF TRUSSES				
The Bidder must allow for all items deemed necessary for the proper design, fabrication and erection of roof trusses, bracing, etc.				
All timber roof trusses including nail-plated trusses and bolted trusses with lapped members must comply with SANS. Roof coverings are 0,80mm thick "Klip-Tite" sheets and the ceilings, are of both nailed up and suspended construction type. Roof ties, concrete supports, roof coverings, battens, fascias, ceilings, brandering, flashings, rainwater goods, etc., are all elsewhere measured. Prices for roof trusses are to include for all permanent and temporary bracing and supports, and for all necessary top and bottom chord bracing, wind bracing and runners, where required.				
Roof coverings are 0.80mm thick "Kilp-Tite" aluminium sheets and ceilings, where applicable are 600 x 600mm suspended ceiling tiles or gypsum plasterboard.				
Bidders are to note that should there be any doubt or obscurity as to the meaning and intent of any descriptions, the Bidder must have same rectified with the Architect and allow for accordingly in his/her Bid. The Bidder is to include in the rates for all that he/she considers necessary for the proper design, construction, erection and structural stability certification.				
<u>Joinery</u>				
Descriptions of frames shall be deemed to include frames, transomes and rails				
Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts				
Fire doors				
Fire doors are to be in accordance with SANS 1253				
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Carpentry And Joinery				
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		Unit	Quantity	Rate	Amount
	STRUCTURAL TIMBERWORK ETC				
	SA Pine or other approved				
1	228 x 76mm Bolted beams	m	111		
	PREFABRICATED ROOF TRUSSES, ETC.				
	The following in plate nailed timber roof trusses with pitch not exceeding 25 degrees from an approved supplier, delivered to site, hoisted into position, fixed and braced on timber wall plates to SANS 10400:				
2	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 39 595mm x 9 030mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 357.59m2)	No	1		
3	Design, supply and install double pitched hipped roof				
3	truss system for interlocking building area size approximately 22 400mm x 19 830mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 444.19m2)	No	1		
4	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 20 000mm x 16 500mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 330m2)	No	1		
	Carried to Collection			R	
	Bill No. 6				
	Carpentry And Joinery				
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		Unit	Quantity	Rate	Amount
5	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 14 531mm x 13 830mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 200.96m2)	No	1		
6	Design, supply and install mono pitched roof truss system for interlocking building area size approximately 5 100mm x 3 400mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 17.34m2)	No	1		
7	Design, supply and install mono pitched roof truss system for interlocking building area size approximately 14 970mm x 3 400mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 50.90m2)	No	1		
8	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 16 230mm x 15 250mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 247.51m2)	No	1		
9	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 16 230mm x 10 630mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 172.52m2)	No	4		
	Carried to Collection			R	
	Bill No. 6 Carpentry And Joinery				
	32				

ı		Unit	Quantity	Rate	Amount	ı
10	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 5 100mm x 4 500mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 22.95m2)	No	1			
11	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 13 809mm x 9 687mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 133.82m2)	No	2			
12	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 7 997mm x 4 230mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 33.83m2)	No	2			
13	Design, supply and install double pitched hipped roof truss system for interlocking building area size approximately 13 200mm x 7 230mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 95.44m2)	No	1			
	Carried to Collection			R		
	Bill No. 6 Carpentry And Joinery					

		Unit	Quantity	Rate	Amount	
14	Extra over design, supply and install roof truss system for hips and valleys at different pitch orientation building area size approximately 4 200mm x 2 000mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 8.40m2)	No	1			
15	Extra over design, supply and install roof truss system for hips and valleys at different pitch orientation building area size approximately 9 030mm x 4 600mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 41.54m2)	No	1			
16	Extra over design, supply and install roof truss system for hips and valleys at different pitch orientation building area size approximately 6 630mm x 3 300mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 21.88m2)	No	1			
17	Extra over design, supply and install roof truss system for hips and valleys at different pitch orientation building area size approximately 5 430mm x 2 400mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 13.03m2)	No	1			
	Carried to Collection			R		
	Bill No. 6 Carpentry And Joinery					

		Unit	Quantity	Rate	Amount	
18	Extra over design, supply and install roof truss system for hips and valleys at different pitch orientation building area size approximately 7 230mm x 3 700mm wide extreme, including openings, complete in accordance with the relevant part of the most current edition of SANS, including cross battens at hips, valleys etc. fixed to trusses with and including ring shank nails, valley rafters, temporary and permanent bracing, etc. all in accordance with the engineers specifications (measured flat on plan 26.75m2)	No	1			
19	The following certificates are required for timber roofs:  Provide manufacturing and installation certificates (TR1 and TR2), to be supplied by the contractor and approved by the Consulting Structural Engineer after manufacture and installation respectively	Item				
	Sawn softwood					
20	25 x 304mm Valley boarding	m	55			
21	38 x 114mm Wall plates	m	424			
22	50 x 75mm Purlins	m	2 630			
	EAVES, VERGES, ETC					
	"Everite Nutec" or other approved medium density plain fibre-cement fascias and barge boards					
23	12 x 225mm Medium density fascia board including galvanised H-profile jointing strips tide with and including hot dipped galvanised screws and washers	m	468			
24	80 x 200mm Medium density barge board including galvanised H-profile jointing strips tide with and including hot dipped galvanised screws and washers	m	331			
	DOORS					
	<u>Drawings:</u>					
	Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained.					
	Carried to Collection			R		
	Bill No. 6					
	Carpentry And Joinery					
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		Unit	Quantity	Rate	Amount	
	Timber Deere					
	<u>Timber Doors</u> The tenderers are referred to the Architectural drawing No. 23002 - TD401, when pricing the following doors.					
	Timber solid core flush panel door hung to steel frames					
25	D2/D18 - 813x2032x40mm solid core timber single door with and including 250 x 500mm viewing panel and 300mm high stainless steel cladding ready to receive ironmongery and painting (measured elsewhere), complete	No	7			
26	D3/D20 - 813x2032x40mm solid core timber single door ready to receive ironmongery and painting (measured elsewhere), complete	No	38			
27	D4 - 813x2032x40mm solid core timber single door with and including a 150mm undercut ready to receive ironmongery and painting (measured elsewhere), complete	No	10			
28	D6/D10/D16 - 813x2032x40mm solid core timber single door with and including a 300mm high stainless steel cladding ready to receive ironmongery and painting (measured elsewhere), complete	No	21			
29	D7/D11 - 930x2032x40mm solid core timber single door with and including a 300mm high stainless steel cladding ready to receive ironmongery and painting (measured elsewhere), complete	No	5			
30	D9/D14 - 1260x2032x40mm solid core timber double swing door with and including 250 x 500mm safety glass viewing panel ready to receive ironmongery and painting (measured elsewhere), complete	No	15			
31	D13 - 813x2032x40mm solid core timber single door with and including 250 x 500mm viewing panel ready to receive ironmongery and painting (measured elsewhere), complete	No	1			
32	D15/D17 - 813x2032x40mm solid core timber single door with and including a 900mm high stainless steel cladding ready to receive ironmongery and painting (measured elsewhere), complete	No	16			
33	D19 - 1710x2032x40mm solid core timber double door with and including 250 x 500mm safety glass viewing panel ready to receive ironmongery and painting (measured elsewhere), complete	No	1			
		140				
	Carried to Collection			R		
	Bill No. 6 Carpentry And Joinery					

		Unit	Quantity	Rate	Amount	
	Purpose made solid timber door with and including					
	Galvanised Mild Steel 1.6mm thick faced both sides and edged all round welded and constructed to the Architect's approval and including hanging the door to steel frame (elsewhere) ready to receive ironmongery (elsewhere), complete					
34	FCD - 950x1200x40mm cupboard double door ready to receive ironmongery and painting (elsewhere), complete	No	4			
35	BCD - 1250x2100x40mm cupboard double door ready to receive ironmongery and painting (elsewhere), complete	No	4			
	<u>FITTINGS</u>					
	Kitchen floor and wall cupboards					
36	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) sink unit with and including Squareline profile on 1 long edge, overall size 2 170 long x 625mm deep x 875mm high with 2no. 22mm melamine faced cupboard doors with high impact edging all round with rust-proof concealed self closing hinges, including 1 No. 22mm laminated SA pine shelving on M1950H white mounting brackets and 3no. 22mm melemine faced drawers hung on epoxy coated mild steel runners and girders and with brushed aluminium handles, including cut-out for sink approximately 1200mm x 500mm wide (sink elsewhere measured), with and including 50mm diameter x 100mm high aluminium cabinet legs all as per drawing number 23002-TD500 (Kitchen), appended					
	elsewhere in this Bid document.	No	2			
37	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) sink unit with and including Squareline profile on 1 long edge, overall size 2 770 long x 622mm deep x 875mm high with 4no. 22mm melamine faced cupboard doors with high impact edging all round with rust-proof concealed self closing hinges, including 1 No. 22mm laminated SA pine shelving on M1950H white mounting brackets and 3no. 22mm melemine faced drawers hung on epoxy coated mild steel runners and girders and with brushed aluminium handles, including cut-out for sink approximately 1200mm x 500mm wide (sink elsewhere measured), with and including 50mm diameter x 100mm high aluminium cabinet legs all as per drawing number 23002-TD500 (Cleaners Room), appended elsewhere in this Bid document.	No	1			
	Carried to Collection			R		
	Bill No. 6 Carpentry And Joinery					
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1		Unit	Quantity	Rate	Amount	I
38	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) sink unit with and including Squareline profile on 1 long edge, overall size 3 370 long x 622mm deep x 875mm high with 4no. 22mm melamine faced cupboard doors with high impact edging all round with rust-proof concealed self closing hinges, including 1 No. 22mm laminated SA pine shelving on M1950H white mounting brackets and 3no. 22mm melemine faced drawers hung on epoxy coated mild steel runners and girders and with brushed aluminium handles, including cut-out for sink approximately 1200mm x 500mm wide (sink elsewhere measured), with and including 50mm diameter x 100mm high aluminium cabinet legs all as per drawing number 23002-TD500 (Kitchenette), appended elsewhere in this Bid document.	No	1			
39	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) sink unit with and including Squareline profile on 1 long edge, overall size 3 370 long x 622mm deep x 875mm high with 4no. 22mm melamine faced cupboard doors with high impact edging all round with rust-proof concealed self closing hinges, including 1 No. 22mm laminated SA pine shelving on M1950H white mounting brackets and 3no. 22mm melemine faced drawers hung on epoxy coated mild steel runners and girders and with brushed aluminium handles, including cut-out for sink approximately 1200mm x 500mm wide (sink elsewhere measured), with and including 50mm diameter x 100mm high aluminium cabinet legs all as per drawing number 23002-TD500 (Procedure Room), appended elsewhere in this Bid document.	No	1			
40	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) sink unit with and including Squareline profile on 1 long edge, overall size 3 370 long x 622mm deep x 875mm high with 4no. 22mm melamine faced cupboard doors with high impact edging all round with rust-proof concealed self closing hinges, including 1 No. 22mm laminated SA pine shelving on M1950H white mounting brackets and 3no. 22mm melemine faced drawers hung on epoxy coated mild steel runners and girders and with brushed aluminium handles, including cut-out for sink approximately 1200mm x 500mm wide (sink elsewhere measured), with and including 50mm diameter x 100mm high aluminium cabinet legs all as per drawing number 23002-TD500 (Emergency Room), appended elsewhere in this Bid document.	No	1			
	Carried to Collection			R		
	Bill No. 6 Carpentry And Joinery					

		Unit	Quantity	Rate	Amount	
41	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) sink unit with and including Squareline profile on 1 long edge, overall size 2 583 long x 622mm deep x 875mm high with 4no. 22mm melamine faced cupboard doors with high impact edging all round with rust-proof concealed self closing hinges, including 1 No. 22mm laminated SA pine shelving on M1950H white mounting brackets and 3no. 22mm melemine faced drawers hung on epoxy coated mild steel runners and girders and with brushed aluminium handles, including cut-out for sink approximately 1200mm x 500mm wide (sink elsewhere measured), with and including 50mm diameter x 100mm high aluminium cabinet legs all as per drawing number 23002-TD500 (Urine Test), appended elsewhere in this Bid document.	No	1			
	Counter tops, desks and tables					
42	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) work station unit overall size approximately 3 070 x 720mm wide x 750mm high with and including Squareline profile on 1 long edge, consisting of a high pressure laminate bonded to a particle board substrate and brown melamine backer on one side, floor mounted worktop with 2no. drawer sets of 4No. 22mm melamine faced drawer doors with high impact edging all round overall size 406mm long x 600mm deep x 718mm high including 2no. open spaces for chairs (elsewhere measured), with and including 80mm diameter x 710mm high table legs fixed with countersunk stainless steel screws with aluminium leg adjuster all as per drawing number 23002-TD500 (Control Room, CCMDD, Reception), appended elsewhere in this Bid document.	No	3			
43	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) work station unit overall size approximately 3 267 x 600mm wide x 750mm high with and including Squareline profile on 1 long edge, consisting of a high pressure laminate bonded to a particle board substrate and brown melamine backer on one side, floor mounted worktop with 2no. drawer sets of 4No. 22mm melamine faced drawer doors with high impact edging all round overall size 406mm long x 600mm deep x 718mm high including 3no. open spaces for chairs (elsewhere measured), with and including 80mm diameter x 710mm high table legs fixed with countersunk stainless steel screws with aluminium leg adjuster all as per drawing number 23002-TD500 (Security Guards), appended elsewhere in this Bid					
	document.	No	1			
	Carried to Collection			R		
	Bill No. 6					
	Carpentry And Joinery					
	39					

		Unit	Quantity	Rate	Amount	ı
44	32mm Post formed worktop (colour: Astral Graphite, code: 518 FK) work station unit overall size approximately 2 400 x 600mm wide x 750mm high with and including Squareline profile on 1 long edge, consisting of a high pressure laminate bonded to a particle board substrate and brown melamine backer on one side, floor mounted worktop with 2no. drawer sets of 4No. 22mm melamine faced drawer doors with high impact edging all round overall size 406mm long x 600mm deep x 718mm high including 3no. open spaces for chairs (elsewhere measured), with and including 80mm diameter x 710mm high table legs fixed with countersunk stainless steel screws with aluminium leg adjuster all as per drawing number 23002-TD500 (Search Room), appended elsewhere in this Bid document.	No	1			
45	32mm Post formed (colour: Astral Graphite, code: 518 FK) worktop unit overall size approximately 1 410 x 600mm wide x 750mm high with Squareline profile on 1 long edge, consisting of a high pressure laminate bonded to a particleboard substrate with brown malamine backer on one side, and including 16 x 70mm melamine runner fixed to wall with recessed screws and plastic wall pluges fixed at 600mm centres, with and including 80mm diameter x 710mm high table legs fixed with countersunk stainless steel screws with aluminium leg adjuster all as per drawing number 23002-TD500 (HMC), appended elsewhere in this Bid document.	No	1			
46	32mm Post formed (colour: Astral Graphite, code: 518 FK) worktop unit overall size approximately 1 573 x 600mm wide x 750mm high with Squareline profile on 1 long edge, consisting of a high pressure laminate bonded to a particleboard substrate with brown malamine backer on one side, and including 16 x 70mm melamine runner fixed to wall with recessed screws and plastic wall pluges fixed at 600mm centres, with and including 80mm diameter x 710mm high table legs fixed with countersunk stainless steel screws with aluminium leg adjuster all as per drawing number 23002-TD500 (Vitals), appended elsewhere in this Bid document.	No	2			
	Carried to Collection			R		
	Bill No. 6 Carpentry And Joinery					

		Unit	Quantity	Rate	Amount
47	32mm Post formed (colour: Astral Graphite, code: 518 FK) worktop unit overall size approximately 1 685 x 600mm wide x 750mm high with Squareline profile on 1 long edge, consisting of a high pressure laminate bonded to a particleboard substrate with brown malamine backer on one side, and including 16 x 70mm melamine runner fixed to wall with recessed screws and plastic wall pluges fixed at 600mm centres, with and including 80mm diameter x 710mm high table legs fixed with countersunk stainless steel screws with aluminium leg adjuster all as per drawing number 23002-TD500 (Vitals), appended elsewhere in this Bid document.	No	1		
48	32mm Post formed (colour: Astral Graphite, code: 518 FK) worktop unit overall size approximately 1 500 x 600mm wide x 750mm high with Squareline profile on 1 long edge, consisting of a high pressure laminate bonded to a particleboard substrate with brown malamine backer on one side, and including 16 x 70mm melamine runner fixed to wall with recessed screws and plastic wall pluges fixed at 600mm centres, with and including 80mm diameter x 710mm high table legs fixed with countersunk stainless steel screws with aluminium leg adjuster all as per architects detail (Security Reception & Search), appended elsewhere in this Bid document.	No	1		
	PINNING BOARDS	110	l		
	"Flortime Premier" pinning boards				
49	9mm Pinning board 594 x 841mm high nailed to plastered walls	No	8		
50	1200 x 1000mm high white notice board nailed to plastered walls	No	8		
	BUDGETARY ALLOWANCES				
51	Joinery fittings  Allow the amount of R 150'000.00 for joinery fittings to be expended as the Principal Agent may direct or deduct in whole or in part, if not required.	Item			150 000 00
	Loose furniture				
52	Allow the amount of R 315'000.00 for loose furniture to be expended as the Principal Agent may direct or deduct in whole or in part, if not required.	Item			315 000 00
	Carried to Collection			R	
	Bill No. 6 Carpentry And Joinery 41				
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BILL NO. 6  CARPENTRY AND JOINERY  COLLECTION	Page No	
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Carried to Summary	R	
Bill No. 6 Carpentry And Joinery		
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	Unit	Quantity	Rate	Amount
BILL NO. 7				
CEILINGS PARTITIONS AND ACCESS FLOORING				
(CPAP WORK GROUP NO. 129 UNLESS OTHERWISE STATED)				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 7				
Ceilings Partitions And Access Flooring  43				

Eidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour unitensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on minarual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above in the contravention of the contravention of the above in the contravention of the contraventio		Unit	Quantity	Rate	Amount
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to be horizontal along the length  Steel components  All steel components for ceilings, partitions are to be galvanised in accordance with SANS 121  Carried to Collection  R  Bill No. 7  Ceilings Partitions And Access Flooring	which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal				
All steel components for ceilings, partitions are to be galvanised in accordance with SANS 121  Carried to Collection  R  Bill No. 7  Ceilings Partitions And Access Flooring					
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Bill No. 7 Ceilings Partitions And Access Flooring					
Ceilings Partitions And Access Flooring	Carried to Collection			R	
	Bill No. 7				
	Ceilings Partitions And Access Flooring				

		Unit	Quantity	Rate	Amount
	Grid system to suspended ceilings:				
	All grids to suspended ceilings shall be inspected and certified as approved by the manufacturer prior to the installation of ceiling boards. Should this not be strictly adhered to, the contractor will be instructed to remove all ceiling boards, and achieve the above manufacturers approval at his own expense, and with any consequential delay to the contract period being for his account.				
	CEILING TIMBERS, BEADS, INSULATION, ETC				
	<u>"Aerolite" insulation</u>				
1	40mm Insulation closely fitted and laid on top of brandering between roof timbers, etc	m²	1 143		
	NAILED UP CEILINGS  12.5mm "Rhino" gypsum plasterboard (BPB) with galvanised H-type pressed steel jointing strips secured to 50 x 50mm brandering at 400mm centres				
2	Ceilings, including 50 x 50mm sawn softwood brandering at 400mm centres in one direction, including cross brandering at ends and to all perimeter edges	m²	1 143		
3	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	86		
	SUSPENDED CEILINGS				
	1200 x 600 x 15mm "CAPCO DAIKEN" or other approved pre-painted Constellation square edge ceiling tiles laid into "CAPCO" exposed CKM tee grid system. All in accordance with CAPCO installation instructions.				
4	Ceilings suspended not exceeding 1m below timber roof trusses.	m²	570		
	"Rhino" gypsum plasterboard cornices				
5	90mm Coved cornices, fixed with "Rhinobed" and "Rhino Art" adhesive	m	1 040		
6	Cornices to suspended ceilings 45 x 20mm "Pelican PS3" or other approved shadowline trim. (Labour Intensive)	m	622		
	Carried to Collection			R	
	Bill No. 7 Ceilings Partitions And Access Flooring 45				

		Unit	Quantity	Rate	Amount	
7	BUDGETARY ALLOWANCES  Specialist bulkheads  Allow the amount of R 100 000.00 (One hundred thousand rand) for bulkhead by specialist to be expended as the Principal Agent may direct or deduct in whole or in part, if not required	ltem				
	Carried to Collection			R		
	Bill No. 7					
	Ceilings Partitions And Access Flooring					
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BILL NO. 7 CEILINGS PARTITIONS AND ACCESS FLOORING COLLECTION	Page No	
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Ceilings Partitions And Access Flooring 47		

	Unit	Quantity	Rate	Amount
BILL NO. 8 FLOOR COVERINGS				
(CPAP WORK GROUP NO. 130 UNLESS OTHERWISE STATED)				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
FLOOR COVERINGS, WALL LININGS				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Callection			<b>.</b>	
Carried to Collection			R	
Bill No. 8 Floor Coverings				

		Unit	Quantity	Rate	Amount	
	<u>Labour Intensive</u>					
	Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
	<u>Fixing</u>					
	Floor coverings, wall linings shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings					
	FLOOR COVERINGS					
	2,5mm Homogeneous fully flexible seamless vinyl sheeting with welded joints fully bonded with adhesive installed complete on well prepared gronolothic floor finish					
1	F1 - Vinyl Sheeting on floors	m²	1 151			
	Artificial lawn on well prepared granolithic floor finish					
2	F4 - Artificial lawn on floors	m²	631			
	SKIRTINGS AND NOSINGS					
	70mm FLOORWORX Coved Vinyl Skiritng, colour to match					
3	SK1 - Vinyl coved skirting	m	1 096			
	POLISH, SEALERS, ETC					
	Polish, Sealers, etc.					
4	Throughly clean down and wash, strip with an amonia based stripping agent and apply three coats of approved					
	polyrethane sealer in strict accordance with the manufacturers instructions on vinyl tiles. (Labour Intensive)	m²	1 151			
	Carried to Collection			R		
	Bill No. 8					
	Floor Coverings 49					
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BILL NO. 8 FLOOR COVERINGS COLLECTION	Page No	
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Carried to Summary	R	
Bill No. 8		
Floor Coverings 50		

IRONMONGERY  (CPAP WORK GROUP NO. 132 UNLESS OTHERWISE STATED)  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications, as contained in the complete Bid Documents, Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heightts  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.		Unit	Quantity	Rate	Amount
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edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.					
Carried to Callection	Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of				
Carried to Callection					
Carried to Callaction					
CALIED TO CONFINITION   P	Carried to Collection			R	
				ĸ	
Bill No. 9 Ironmongery 51	Ironmongery				

		Unit	Quantity	Rate	Amount
	Labour Intensive				
	Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained				
	regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to				
	develop, employ and provide skills through the Expanded Public Works Programme.				
	Proprietary items				
	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 clarifying the features of the products/articles offered				
	On request returnable samples are to be provided to the principal agent for consideration				
	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				
	HINGES AND BOLTS				
	"Dormakaba" or similar approved				
1	100 x 44mm Natural anodised sinkless hinge (code 1040"44)	No	20		
2	200 x 44mm Natural anodised sinkless hinge (code 2040"44)	No	348		
	Carried to Collection			R	
	Bill No. 9				
	Ironmongery				
	52				

		Unit	Quantity	Rate	Amount
3	Adjustable roller bolt (code DBC"SS"022)	No	18		
4	Indicator bolt	No	15		
5	305mm Manual flush bolt with heel (code DFB"SC"181)	No	22		
	HANDLES				
	"Dormakaba" or similar approved				
6	325 x 25mm Straight tubular pull handle BTB (BTB fixing sets included) (code DPH301A BTB)	Pairs	19		
7	149 x 19mm Straight tubular pull handle BTB (BTB fixing sets included) (code DPH301C BTB)	Pairs	21		
8	Lever handle on 170 x 170mm plate with cylinder cut out (code TH120 BP Cyl S.S)	Pairs	78		
	LOCKS				
	"Assa Abloy" or similar approved				
9	66mm five pin euro" profile double cylinder master keyed	No	83		
10	Deadlock with escutcheons	No	1		
11	Euro profile lock with roller bolt latch	No	19		
12	Euro Cylinder Dead Lock	No	1		
13	Deadlock with thumb turn euro profile cylinder	No	50		
	DOOR CLOSERS				
	"Assa Abloy" or similar approved				
14	Double action transom closure with and including shoe strap	Pairs	9		
	SUNDRIES				
15	Wall mounted door stop	No	81		
16	Floor mounted door stop	No	1		
17	Foot operated door stop	No	12		
18	Rubber buffer hat and coat hook	No	10		
19	Heavy duty cabin hook & eye where required fixed to 100mm hard wood	No	5		
	"Khomanani" or other approved				
20	1359mm x 831mm x 1180mm Baggage screening machine (HP-SE5030C)	No	1		
21	Multizone metal walk through detector (SE3307)	No	1		
	Carried to Collection			R	
	Bill No. 9				
	Ironmongery				
	53				

		Unit	Quantity	Rate	Amount	
	LETTERS AND NAMEPLATES					
	Signage					
22	Provide a budgetary amount of R 200,000.00 (Two hundred thousand Rand) for statutory fire signage and general direction signage	Item			0	00
	PUSH PLATES AND KICK PLATES					
	"Assa Abloy" or similar approved					
23	76 x 152 x 1.2mm Thick grade 304 stainless steel push plate. Stainless steel plate to have four no. countersunk holes for screw fixing.	No	31			
24	300 x 1.2mm Thick grade 304 stainless steel kick plate. Stainless steel plate to have four no. countersunk holes for screw fixing.	No	<b>E E</b>			
	· ·	No	55			
25	900 x 1.2mm Thick grade 304 stainless steel kick plate. Stainless steel plate to have four no. countersunk holes for screw fixing.	No	16			
	BATHROOM FITTINGS					
	"Bathroom butler" or similar approved					
26	Bathroom Butler paraplegic rails dog leg grab rail with 3 supports or similar approved with brushed grade 304 stainless steel finish, overall size 750 x 750mm plugged and screwed to wall with stainless steel screws.	No	5			
27	Bathroom Butler paraplegic rail or similar approved with brushed grade 304 stainless steel finish, overall size 842mm long, plugged and screwed to wall with stainless steel screwes.		_			
	steel sollewes.	No	5			
	Sanitary Fittings by manufacturer					
28	Polypropylene horizontal baby changing station, deep bed with adjustable safety belt, foldable design overall size when open 862 x 557 x 483mm and 862 x 557 x 120mm when closed	No	3			
29	Circular galvanised wall mounted refuse bag holder, black rubber lid, bungee cord bag clamp, wall mounting point, diametre 445mm x 120mm height	No	62			
	Carried to Collection			R		
	Bill No. 9					
	Ironmongery					
	54					

Carried to Collection R Bill No. 9			Unit	Quantity	Rate	Amount
Franke Stratos STRX 672E, 1,2/1,5mm thick grade 304 18/10 satin stainless steel recessed tollet roll holders, size 304 x 156 x 140,7 mm deep for 2 rolls maximum 108mm diameter with spindle system and cylinder lock with standard franke key, plugged and screwed to wall with stainless steel screwes.  No 14  Franke Stratos STRX 618, 1,2/1,5mm thick grade 304 x 100 x 134mm deep with replaceable and refiliable 1 x litre container, cylinder lock with standard franke key, plugged and screwed to the wall with stainless steel screws.  Frank Stratos STRX 611 Or similar approved 1,2/1,5mm thick grade 304 x 205 x 134mm deep with capacity of 6 litres, plugged and screwed to the wall with capacity of 6 litres, plugged and screwed to the wall with stainless steel screws.  Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel screws  SHEVES ETC  Steel shelving with standard epoxy coated finish  900 x 600 x 2000mm steel shelf with and including 5No. shelves  Walting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to walling areas to be expended as the Pinnicipal Agent may direct or deduct in whole or in part, if not required  Carried to Collection  R						
Franke Stratos STRX 672E, 1,2/1,5mm thick grade 304 18/10 satin stainless steel recessed tollet roll holders, size 304 x 156 x 140,7 mm deep for 2 rolls maximum 108mm diameter with spindle system and cylinder lock with standard franke key, plugged and screwed to wall with stainless steel screwes.  No 14  Franke Stratos STRX 618, 1,2/1,5mm thick grade 304 x 100 x 134mm deep with replaceable and refiliable 1 x litre container, cylinder lock with standard franke key, plugged and screwed to the wall with stainless steel screws.  Frank Stratos STRX 611 Or similar approved 1,2/1,5mm thick grade 304 x 205 x 134mm deep with capacity of 6 litres, plugged and screwed to the wall with capacity of 6 litres, plugged and screwed to the wall with stainless steel screws.  Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel screws  SHEVES ETC  Steel shelving with standard epoxy coated finish  900 x 600 x 2000mm steel shelf with and including 5No. shelves  Walting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to walling areas to be expended as the Pinnicipal Agent may direct or deduct in whole or in part, if not required  Carried to Collection  R						
18/10 satin stainless steel recessed tollet roll holders, size 304 x 156 x 140, 7m deep for 2 rolls maximum 108mm diameter with spindle system and cylinder lock with standard franke key, plugged and screwed to wall with stainless steel screws.  13 Franke Stratos STRX 618, 1.2/1.5mm thick grade 304 x 100 x 134mm deep with replaceable and refillable 1 x litre container, cylinder lock with standard franke key, plugged and screwed to the wall with stainless steel screws.  14 Frank Stratos STRX 611 Or similar approved 1.2/1,5mm thick grade 304 x 205 x 134mm deep with capacity of 6 litres, plugged and screwed to the wall with stainless steel sanitory towel disposal bins (code: 359740), size 304 x 205 x 134mm deep with capacity of 6 litres, plugged and screwed to the wall with stainless steel screws.  15 Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and including stainless steel screws who was a stainless steel screws who was a steel screws who was a stainless steel screws who was a stainless steel screws who was a stainless steel screws who was steel screws who was a stainless steel s	20					
100 x 134mm deep with replaceable and refiliable 1 x litre container, cylinder look with standard franke key, plugged and screwed to the wall with stainless steel screws.  25 Frank Stratos STRX 611 Or similar approved 1,2/1,5mm thick grade 304 18/10 satin stainless steel sanitory towel disposal bins (code: 359740), size 304 x 205 x 134mm deep with capacity of 6 litres, plugged and screwed to the wall with stainless steel screws.  36 Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and including stainless steel screws.  37 Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and including stainless steel fixed to wall surface with and including stainless steel favore with removable drip tray/19mm drain outlet - size 915mm long (6 bedpan & bottle size)  38 HELVES ETC  Steel shelving with standard epoxy coated finish  3900 x 600 x 2000mm steel shelf with and including 5No. shelves  Waiting Area Chairs  39 Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Carried to Collection  R  Bill No. 9	30	18/10 satin stainless steel recessed toilet roll holders, size 304 x 156 x 140,7 mm deep for 2 rolls maximum 108mm diameter with spindle system and cylinder lock with standard franke key, plugged and screwed to wall	No	14		
Frank Stratos STRX 611 Or similar approved 1,2/ 1,5mm thick grade 304 18/10 satin stainless steel sanitory towel disposal bins (code: 359740), size 304 x 205 x 134mm deep with capacity of 6 litres, plugged and screwed to the wall with stainless steel screws.  33 Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and iincluding stainless steel screws  No 15  34 Franke Citimetal BR6 bedpan and bottle rack - 18/10 of grade 304 stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel bar braces with removable drip tray/ 19mm drain outlet - size 915mm long (6 bedpan & bottle size)  SHELVES ETC Steel shelving with standard epoxy coated finish 900 x 600 x 2000mm steel shelf with and including 5No. shelves  Waiting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Carried to Collection  R  Bill No. 9	31	100 x 134mm deep with replaceable and refillable 1 x litre container, cylinder lock with standard franke key, plugged and screwed to the wall with stainless steel	No	46		
1,5mm thick grade 304 18/10 satin stainless steel sanitory towel disposal bins (code: 359740), size 304 x 205 x 134mm deep with capacity of 6 litres, plugged and screwed to the wall with stainless steel screws.  33 Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and including stainless steel screws  34 Franke Citimetal BR6 bedpan and bottle rack - 18/10 of grade 304 stainless steel fixed to wall surface with and including stainless steel fixed to wall surface with and including stainless steel bar braces with removable drip tray! 19mm drain outlet - size 915mm long (6 bedpan & bottle size)  SHELVES ETC Steel shelving with standard epoxy coated finish  900 x 600 x 2000mm steel shelf with and including 5No. shelves  BUDGETARY ALLOWANCES Waiting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Carried to Collection  R  Bill No. 9		5	110			
robe hooks, plugged and screwed to the wall with and including stainless steel screws  No 15  Franke Citimetal BR6 bedpan and bottle rack - 18/10 of grade 304 stainless steel fixed to wall surface with and including stainless steel bar braces with removable drip tray/ 19mm drain outlet - size 915mm long (6 bedpan & bottle size)  No 1  SHELVES ETC  Steel shelving with standard epoxy coated finish  900 x 600 x 2000mm steel shelf with and including 5No. shelves  BUDGETARY ALLOWANCES  Waiting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Carried to Collection  R  Bill No. 9	32	1,5mm thick grade 304 18/10 satin stainless steel sanitory towel disposal bins (code: 359740), size 304 x 205 x 134mm deep with capacity of 6 litres, plugged and	No	46		
grade 304 stainless steel fixed to wall surface with and including stainless steel bar braces with removable drip tray/ 19mm drain outlet - size 915mm long (6 bedpan & bottle size)  SHELVES ETC  Steel shelving with standard epoxy coated finish  900 x 600 x 2000mm steel shelf with and including 5No. shelves  BUDGETARY ALLOWANCES  Waiting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Carried to Collection  R  Bill No. 9	33	robe hooks, plugged and screwed to the wall with and	No	15		
Steel shelving with standard epoxy coated finish 900 x 600 x 2000mm steel shelf with and including 5No. shelves  BUDGETARY ALLOWANCES Waiting Area Chairs Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Item  Carried to Collection  R  Bill No. 9	34	grade 304 stainless steel fixed to wall surface with and including stainless steel bar braces with removable drip tray/ 19mm drain outlet - size 915mm long (6 bedpan &	No	1		
Steel shelving with standard epoxy coated finish 900 x 600 x 2000mm steel shelf with and including 5No. shelves  BUDGETARY ALLOWANCES Waiting Area Chairs Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Item  Carried to Collection  R  Bill No. 9		SHELVES ETC				
35 900 x 600 x 2000mm steel shelf with and including 5No. shelves  BUDGETARY ALLOWANCES  Waiting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Item  Carried to Collection  R  Bill No. 9						
Waiting Area Chairs  Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required  Item  Carried to Collection  R  Bill No. 9	35	900 x 600 x 2000mm steel shelf with and including 5No.	No	50		
Allow the amount of R 210'000.00 (Two Hundred and Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required    Carried to Collection   R		BUDGETARY ALLOWANCES				
Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct in whole or in part, if not required    Carried to Collection   R		Waiting Area Chairs				
Bill No. 9	36	Ten Thousand Rand) for metal chairs to waiting areas to be expended as the Principal Agent may direct or deduct	Item			210 000 00
Bill No. 9						
Bill No. 9						
Bill No. 9						
		Carried to Collection			R	
		Bill No. 9				
		Ironmongery				
55						

BILL NO. 9 IRONMONGERY COLLECTION	Page No	
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	53	
	54	
	55	
Carried to Summary	R	
Bill No. 9		
Ironmongery 56		
50		

	Unit	Quantity	Rate	Amount
BILL NO. 10				
STRUCTURAL STEELWORK (PROVISIONAL)				
(CPAP WORK GROUP NO. 134 UNLESS OTHERWISE STATED)				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 10 Structural Steelwork (provisional)				
57				

	Unit	Quantity	Rate	Amount
Labour Intensive				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
<u>Descriptions</u>				
Descriptions of bolts shall be deemed to include nuts and washers				
Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete				
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
Structural Steelwork:				
All work to be in accordance with SANS 1200H				
All welds to be minimum 6mm continuous fillet welds.				
All steelwork to be grade S355JR (unless otherwisestated).				
All purlins to be commercial grade purlins.				
All bolts to be grade 8.8 bolts.				
All commercial quality HD bolts and steelwork to have a minimum grade stress of 250MPa.				
All steelwork to be hot dipped galvanised to ISO 1461 or EN 10240, unless otherwise stated.				
Galvanising certificate for all steelwork is to be issued to the Engineer upon completion of galvanising.				
Two sets of fabrication drawings are to be provided to the Engineer for approval prior to commencement of fabrication.				
Carried to Collection			R	
Bill No. 10				
Structural Steelwork (provisional) 58				
00				II I

		Unit	Quantity	Rate	Amount
	Certificates confirming the grade stress of all steelwork and bolts specified is to be submitted to the Engineer on completion.				
	Hot dipped galvanising:				
	The mass of hot dip galvanised steelwork has been calculated on the mass before galvanising for which allowance must be made in the pricing.				
	Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.				
	Where possible all welds to galvanised steelwork shall be completed before galvanising.				
	HOT DIPPED GALVANISED STEEL COLUMNS AND BEAMS				
	Hot dipped galvanised welded columns in single lengths with flat bearer and connection plates, bolted to concrete (Provisional)				
1	100 x 5mm x 14.8kg/m Square Hollow Section Columns	Tonnes	2		
	HOT DIPPED GALVANISED FIXING DETAILS (PROVISIONAL)				
2	Manufacture, supply and erect on site all structural steel fixing components according to Engineer's specifications	Tonnes	1		
	HOT DIPPED GALVANISED BOLTS, FASTENERS, ETC				
	Hot dipped galvanised bolts and fasteners (Provisional)				
3	12mm Diameter bolts	No	160		
4	12mm Diameter chemical anchor 150mm long	No	176		
	_				
	Carried to Collection			R	
	Bill No. 10				
	Structural Steelwork (provisional)				
	59				

			Amount
BILL NO. 10 STRUCTURAL STEELWORK (PROVISIONAL COLLECTION	<u>.L)</u>	Page No	
	Brought Forward from Page	57 58 59	
Bill No. 10	o Summary	R	
Structural Steelwork (provisional)	60		

	Unit	Quantity	Rate	Amount
BILL NO. 11 METALWORK				
(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 11 Metalwork				
61				

	nit	Quantity	Rate	Amount
Labour Intensive				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Descriptions of bolts, anchors, etc.				
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				
Rates shall include for the following:				
Suitably protecting all exposed aluminium and glass surfaces with an approved protection tape and plastic sheeting. Such protection is to be removed at completion of the contract and the exposed surfaces cleaned down and left perfect. Under no circumstances will any damage whatsoever to the finished product be accepted.				
Building in and fixing into preformed openings. Window opening sizes to be verified on site before windows can be manufactured.				
Complete ironmongery to all aluminium doors and windows				
Complete glazing as described with and including matching aluminium glazing beads and gaskets and glazed in accordance with the manufacturer's written instructions.				
Carried to Collection			R	
Bill No. 11				
Metalwork				
62				

	Unit	Quantity	Rate	Amount
All opening and fixed lights, coupling mullions and transoms, fittings, ironmongery, etc. As required.				
Powdercoated aluminium windows, doors, etc.:				
Bidders are to note that prices for aluminium doors and windows are to include for all necessary ironmongery for the complete installation as required. No further claims in this regard will be entertained.				
Bidders are advised to refer to the architects window and door schedules, as these will take precedence and rates will be deemed to be based in the schedules should there be any discrepency				
Items shall be manufactured by an approved specialist who shall provide a sample upon request, for approval by the Principal Agent, at no additional cost to the contract.				
Powdercoating to doors, windows, gates, etc. shall comply with minimum class 2, manufactured and installed in accordance with good building practice and in terms of the latest code of practice with revisions as recommended by the SANS and AAAMSA.				
All powdercoating shall be to SANS 1796:2013 (Class 2) – "Interpon D2525 T" or other approved, colour Matt Bronze 543 (Code QX201P), and shall be supplied with a 25 year project warrantee.				
Screws and bolts shall be of corresponding metal and colour and heads of screws shall be countersunk. Selftapping screws shall, unless otherwise described, be used for screwing items to adjoining metalwork. Stainless steel screws shall be used for fixing aluminium. Items fixed to adjoining metalwork with rivets, selftapping screws, set screws, machine screws, etc. shall include for all necessary drilling.				
Welded joints and intersections:				
Prices of continuous hollow section and solid section shall include for welded joints in the length and prices of intersections shall include for all cutting, mitering, scribing, shaping, welding, bends, knees, ramps, etc.				
Prices of balustrades, burglar guards and the like shall include for framed and welded joints and intersections.				
Hot dipped galvanising:				
The mass of hot dip galvanised steelwork has been calculated on the mass before galvanising and no allowance has been made for the additional mass of galvanising for which allowance must be made in pricing.				
Carried to Collection			R	
Bill No. 11 Metalwork				
63				

Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.  Anodising:  All anodising shall be executed in strict accordance with SANS 999. Grade AA25 (Average coating thickness 25 micron) shall be used. Colour to be agreed with Architect.  Screws and bolts:  Screws and bolts shall be of corresponding metal and	
galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.  Anodising:  All anodising shall be executed in strict accordance with SANS 999. Grade AA25 (Average coating thickness 25 micron) shall be used. Colour to be agreed with Architect.  Screws and bolts:	
All anodising shall be executed in strict accordance with SANS 999. Grade AA25 (Average coating thickness 25 micron) shall be used. Colour to be agreed with Architect.  Screws and bolts:	
SANS 999. Grade AA25 (Average coating thickness 25 micron) shall be used. Colour to be agreed with Architect.  Screws and bolts:	
Screws and holts shall be of corresponding metal and	
colour and heads of screws shall be countersunk.  Selftapping screws shall, unless otherwise described, be used for screwing items to adjoining metalwork.  Stainless steel screws shall be used for fixing aluminium.  Items fixed to adjoining metalwork with rivets, selftapping screws, set screws, machine screws, etc., shall include for all necessary drilling.	
Where bolting is specified, projecting shank ends of bolts shall be cut flush and left smooth.	
Drawings:	
Bidders are to note that where descriptions include reference to drawings, notwithstanding anything contained in the descriptions, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No additional time and/or monetary claims resulting from non-adherence to the above will be entertained.	
STEEL GATES AND SCREENS	
Welded screens and gates as per Architects drawing no.23002-TD402	
1 1500 x 1190 x 40mm Powder coated steel frame with ClearVu infill screen including fixings all as per manufacturers instruction No 4	
Sundries	
2 Stainless steel metal base with stainless steel metal top preparation table overall size 1800mm x 700mm x 900mm high No 2	
3 Washing line No 8	
Carried to Collection R	
Bill No. 11	
Metalwork	
64	

		Unit	Quantity	Rate	Amount
	STAINLESS STEEL MINOR WORK				
	Corner protectors:				
4	75 x 75 x 1000mm High stainless steel corner protector installed above capping strip. Installation and maintenance all according to manufacturers specifications	m	25		
	Galvanised steel posts				
5	102 Diameter x 6mm thick, 2800mm high post with 180 x 180 x 8mm thick base plate including 4 m12 bolts and 90 x 350 x 6mm thk bracket plate with and 200 x 350 x 6mm thk braket plate with 4 m12 bolts welded together as per engineers drawing 3039D/P1/P/01	No	40		
	DOOR FRAMES, DOORS AND WINDOWS				
	STEEL DOOR FRAMES				
	1,6mm Double rebated stainless steel frame made of Grade 304 steel				
6	Frame for door size 813x2032x40mm high	No	93		
7	Frame for door size 930x2032x40mm high	No	5		
8	Frame for door size 1260x2032x40mm high	No	15		
9	Frame for door size 1710x2032x40mm high	No	1		
	STEEL ROLLER SHUTTERS ETC				
	Epoxy coated roller shutter doors with 50mm x 50mm x 2.5mm steel frame with 16mm diametre steel bars, fixed to brickwork or concrete with and including canopies to roller mechanism, etc., all as per Architectural door schedule				
10	Chain operated slatted roller shutter for 1000 x 1200mm high opening	No	1		
	STEEL RECORDROOM AND STRONGROOM DOORS, VENTILATORS, ETC				
	Chubb or other approved strong room doors etc suitable for 230mm walls fixed to brickwork or concrete				
11	Strong room door and frame 900 x 2100mm high overall including fixings all as per manufacturers instruction	No	2		
	Carried to Collection			R	
	Bill No. 11 Metalwork				
	65				

		Unit	Quantity	Rate	Amount
	POWDER COATED ALUMINIUM WINDOWS, DOORS, ETC. (CPAP WORK GROUP NO.140)				
	Note: The following aluminium windows, doors, shopfronts, etc. contain references to Architectural drawings appended elsewhere in this Bid document. The bidder is to study these drawings carefully as all items required for the complete and approved supply and installation of the aforementioned items as per the drawings, will be deemed to be included in the bid rate for same. No further claims in this regard will be entertained.				
	Crealco Swift 38 extruded aluminium sections to sizes as shown to comply with 'aaamsa' specifications. All window shopfronts sections to be designed and supplied by manufacturer to sustain windloads as per sans 727 or SANS 1553-2 to meet requirements of sans 10400 Part N and will remain the responsibility of manufacturer to provide the client with the documents as requested. All structural sections, compensation channels & accessories per manufacturer's design. Colour: Powdercoated - Colour TBC all as per Architectural drawing No: 23002-TD402 appended elsewhere in this Bid document				
12	Purpose made window, size approximately 600mm wide x 600mm high. (Labour Intensive)	No	23		
13	Purpose made window, size approximately 600mm wide x 1234mm high. (Labour Intensive)	No	3		
14	Purpose made window, size approximately 1200mm wide x 600mm high. (Labour Intensive)	No	15		
15	Purpose made window, size approximately 1266mm wide x 1234mm high. (Labour Intensive)	No	39		
16	Purpose made window, size approximately 1800mm wide x 600mm high. (Labour Intensive)	No	3		
17	Purpose made window, size approximately 1800mm wide x 1234mm high. (Labour Intensive)	No	62		
	ALUMINIUM LOUVRE UNITS (CPAP WORK GROUP NO. 140)				
	"Crealco swift 38" or other approved fixed louvre units fixed to brickwork or concrete				
18	Purpose made louvre unit for 1200 x 600mm high opening	No	9		
	Carried to Collection			R	
	Bill No. 11				
	Metalwork 66				
			1 1		I I

		Unit	Quantity	Rate	Amount	
	ALUMINIUM CURTAIN WALLS AND SHOPFRONTS					
	Powder coated shopfronts as per "Crealco Facade 60 flush glaze" system complete with subframes, ironmongery, 6,5mm thick laminated safety glass (PG SmartGlass - E Range: Solarvue Neutral HL), sealing and fixing to brickwork or concrete					
19	D5 - 900x2100mm glazed aluminium shopfront single door, complete as per manufacturer's details	No	3			
20	D1 - 1350x2100mm glazed aluminium shopfront door, complete as per manufacturer's details	No	7			
21	D12 - 1800x2100mm glazed aluminium shopfront double door, complete as per manufacturer's details	No	4			
	"Crealco swift 38" or other approved aluminium all window shopfront with clear laminated safety glass fixed to brickwork or concrete					
22	VP02 - 600x1200mm glazed aluminium shopfront window, complete as per manufacturer's details	No	2			
23	VP01 - 1200x900mm glazed aluminium shopfront window, complete as per manufacturer's details	No	1			
	Aluminium screens					
24	3 297 x 1200 Aluminium framed safety glass screen with and including audio and access hatch including fixings all as per manufacturers instruction	No	1			
	Purpose made glass swing double door with and including door frame constructed to the Architect's approval complete as per manufacturer's details					
25	SED - 1200x1050x40mm "Flow Systems" FSC speed gate 330: AISI stainless steel security entry door with and including ironmongery and painting, complete	No	1			
	Carried to Collection			R		
	Bill No. 11					
	Metalwork					
	67					

BILL NO. 11  METALWORK  COLLECTION		Page No	
	Brought Forward from Page	61 62 63 64 65 66 67	
Bill No. 11	Carried to Summary	R	
Metalwork	68		

	Unit	Quantity	Rate	Amount
BILL NO. 12				
PLASTERING				
(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Dill No. 42				
Bill No. 12 Plastering				
69				

	Unit	Quantity	Rate	Amount	
Labour Intensive					
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
<u>Preparation</u>					
For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic.					
<u>Mix</u>					
Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic.					
<u>Panels</u>					
Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints					
Laying					
Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels					
Carried to Collection			R		
Bill No. 12					
Plastering					
70					

		Unit	Quantity	Rate	Amount
	Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
	After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated				
	Curing, seasoning and protection				
	Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.				
	<u>Colour</u>				
	Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.				
	SCREEDS				
	Cement plaster screeds, wood floated on concrete				
1	Average 50mm thick to falls and currents to receive waterproofing on exposed roof slabs (measured elsewhere)	m²	157		
2	Average 50mm thick to falls and currents on floors	m²	1 464		
_	-	111	1 404		
	GRANOLITHIC				
	Untinted granolithic, on concrete	2	4 004		
3	50mm Thick on floors and landings	m²	1 021		
	SPECIALIST FLOOR COVERINGS				
	EPOXY FLOORING SYSTEM, ETC				
	4mm Epoxy Seamless Slip Resistant or 4mm matt polyurethane floor finish using a proprietary bonding agent or 1:1 cement: sand grout				
4	F3 - Epoxy on floors	m²	83		
	75mm high coved FLOWCRETE Epoxy skiritng				
5	F6 - Epoxy coved skirting	m	142		
	INTERNAL PLASTER				
	12mm thick Cement plaster wood floated, on brickwork				
6	On walls	m²	5 308		
7	On narrow widths not exceeding 300mm wide	m²	160		
	Carried to Collection			R	
	Bill No. 12				
	Plastering				
	71				

		Unit	Quantity	Rate	Amount
	Two coats plaster with gypsum finish on plasterboard ceilings Pre-mixed lightweight retarded hemi-hydrate gypsum plaster. Thickness: 2mm thick. Finish: Trowelled smooth with a polished finish.				
8	On ceilings	m²	986		
	One coat rhinolite finish				
9	On ceilings	m²	10		
	Carried to Collection			R	
	Bill No. 12				
	Plastering				
	72				

BILL NO. 12 PLASTERING COLLECTION	Brought Forward from Page	Page No  69  70  71  72	
Bill No. 12	Carried to Summary	R	
Plastering	73		

	Unit	Quantity	Rate	Amount
BILL NO. 13 TILING				
(CPAP WORK GROUP NO. 144 UNLESS OTHERWISE STATED)  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid				
Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 13 Tiling 74				

		Unit	Quantity	Rate	Amount
	Labour Intensive				
	Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
	<u>Fixing</u>				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors shall be deemed to include 1:3 cement screed				
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat				
	Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles				
	WALL TILING				
	600x600x8.5 Full bodied porcelain slip (Allow PC sum of R550 per m²) resistant tiles in compliance with minimum certification rating of R10/R11 with and including 3mm joints				
1	On walls	m²	272		
2	On walls in isolated panels, splashbacks, etc	m²	37		
3	On narrow widths not exceeding 300mm	m²	9		
	Carried to Collection			R	
	Dill M. 40				
	Bill No. 13 Tiling				
	75				

		Unit	Quantity	Rate	Amount
	FLOOR TILING 300x300x8.3 Full bodied Porcelain Tiles (Allow PC				
	sum of R550 per m²) in compliance with UPEC spec with joints varying from 3mm to 5mm. (colour to be				
	uniform light colour)				
4	On floors and landings	m²	58		
5	Skirting 300mm high	m	40		
	600x600x8.5 Full bodied porcelain slip (Allow PC sum of R550 per m²) resistant tiles in compliance with minimum certification rating of R10/R11 with and including 3mm joints				
6	On floors and landings	m²	171		
7	Skirting 150mm high	m	221		
	Carried to Collection			R	
	Bill No. 13				
	Tiling				
	76				

BILL NO. 13 TILING COLLECTION		Page No	
	Brought Forward from Page	74 75 76	
Bill No. 13 Tiling	Carried to Summary  77	R	

	Unit	Quantity	Rate	Amount
BILL NO. 14 PLUMBING AND DRAINAGE (PROVISIONAL)				
(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE STATED)  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural				
specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 14 Plumbing And Drainage (provisional) 78				

	Unit	Quantity	Rate	Amount
Labour Intensive				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Wire gratings				
Descriptions of gutter outlets shall be deemed to include wire balloon gratings				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600				
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				
"Polycop" polypropylene pipes				
Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" compression fittings				
Pipes shall be firmly fixed to walls 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				
Carried to Collection			R	
Bill No. 14				
Plumbing And Drainage (provisional)				
79				

	Unit	Quantity	Rate	Amount
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 antisyphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016  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				
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, casting in, building in or suspending not exceeding 1m below suspension level				
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 SANS (provision for disinfection elsewhere)				
<u>General</u>				
Rates for installation of sanware and all drainage and supply piping of all types will be deemed to include for fair cutting around pipes and making good to floor and wall finishes.				
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)				
Carried to Collection			R	
Bill No. 14				
Plumbing And Drainage (provisional)				
80				

		Unit	Quantity	Rate	Amount	
	RAINWATER DISPOSAL					
	0.9mm Seamless aluminium prepainted gutters and					
	rainwater pipes					
1	125 x 115mm Roof gutters	m	462			
2	100 x 100mm Rainwater pipes	m	264			
3	Extra over for roof outlet including M8 Bolt	No	2			
4	Extra over for pipe connector to gutter outlet	No	67			
5	Extra over for rainwater head	No	67			
6	Extra over single socket bends	No	83			
7	Extra over downpipe for shoe	No	67			
	<u>FITTINGS</u>					
	WC Units					
8	Geberit Abalona wall hung 530mm (I) x 355mm (w) x 340mm (h)toilet with concealed cistern, including flush pipe and pan connector, water supply connection with angle stop valve, protection cover for service opening and protection cover for flush pipe, fixed with included fastening materials inside solid wall from 120mm up to 200mm. All with "Geberit" conditional guarantee.	No	18			
9	Geberit Selnova comfort wall-hung wc, washdown. large projection, ramfree, including flush pipe and pan connector, water supply connection with angle stop valve, protection cover for service opening and protection cover for flush pipe, fixed with included fastening materials inside solid wall from 120mm up to 200mm. All with "Geberit" conditional guarantee.	No	5			
	<u>Urinals</u>					
10	Vaal Sanitary Ware 565 X 275 X 310mm sweatpear white vitreous china wall mounted back inlet urinal including 38mm chromium plated domical grating (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	3			
	Handwash basins					
11	Franke Citimetal WB 001 Single wash hand basin (CODE 325000) of 304 stainless steel 535mm wide wall	No	7			
	Carried to Collection			R		
						_
	Bill No. 14 Plumbing And Drainage (provisional)  81					

		Unit	Quantity	Rate	Amount	
12	Vaal Sanitaryware Vitreous China 510 X 400mm semi- rectangular 'solar 510' medical basin with no tapholes, overflow or chainstay hole. colour white. with chrome plated bottle traps as cobra 340.	No	52			
13	<u>Bathtub</u>	No	8			
	Sinks	NO				
14	Franke Quinline QLX621-1200 dubble single end bowl 1200 x 500mm seb, grade 18/10 stainless steel drop in sink	No	11			
15	Franke wall-mounted sluice sink / slop hopper for exposed cisterns	No	1			
16	Franke 1500 X 650mm single bowl grade 304 stainless steel, with 150 mm high splash back (CODE 353154) side bowl	No	1			
17	Franke stainless steel sink double end hand bowl 1500 x 600mm	No	1			
18	Frank Model S2 Double Bowl Catering Sink, bowl positioned at the end or centre. grade 304 stainless steel 1,2mm thick with a 150mm high integral splash back to the rear and 50 x 10mm turn down with a beaded edge on the remaining sides	N.				
19	Franke, Trendline, drop-on, seb, 1200mm x 535mm	No No	1			
	WASTE UNIONS Floor drain	140	1			
20	"Rofo" floor drain, square flange with slots in grate	No	8			
21	Basin waste  "Grohe" chrome waste set with push-open plug for basin with chrome plug	No	30			
	TRAPS					
22	P trap  Cobra shower p trap with chrome plated grating 40mm, BRASS 373	No	5			
	Carried to Collection			R		
	Bill No. 14 Plumbing And Drainage (provisional) 82					

		Unit	Quantity	Rate	Amount
	TARO VALVES ETS				
	TAPS, VALVES, ETC Taps				
23	Idral - Foel - mixer - chrome - basin, single lever, wall - mounted with swivel spout., installed to manufacturer's recommendations	No	26		
24	Cobra bib tap elbow action, installed in accordance with the manufacturer's recommendations	No	52		
25	Cobra Watertech or similar approved 20mm standard brass hose bibtap with wingnut, lining and 20mm hose union, manufactured in accordance with sans 226:2009 type 1 (bs 1010).	No	13		
26	Cobra focus single lever shower mixer chrome 2 x 1/2 inch bsp female iron inlet and 2 x female iron outlet connection ends	No	1		
		NO	·		
27	Valves Walcro 25mm diametre bsp concealed vandal resistant dzr brass toilet flush valve with vr push-button and concealed flush pipes.	No	18		
28	32mm Cobra toilet flush valve back entry complete	No	5		
	<u>Sundries</u>				
29	Cobra vandalproof showerhead	No	1		
30	Leroy Merlin wash trough double or equally approved	No	9		
	SANITARY PLUMBING				
	uPVC pipes				
31	50mm Pipes	m	630		
32	110mm Pipes	m	225		
	Extra over uPVC pipes for fittings				
33	50mm BSP adaptor	No	80		
34	110mm Eccentric Reducer	No	23		
35	50mm Bend	No	240		
36	110mm Bend	No	46		
37	50mm Access bend	No	160		
38	110mm Access bend	No	23		
39	50mm Junction	No	120		
	Carried to Collection			R	
	Bill No. 14 Plumbing And Drainage (provisional) 83				

		Unit	Quantity	Rate	Amount
40	110mm Junction	No	23		
41	50mm Access junction	No	80		
42	110mm Access junction	No	23		
	·				
43	110mm Reducing access junction	No	23		
44	110mm Double junction	No	23		
45	110mm Double access junction	No	23		
46	50mm Vent valve	No	120		
47	110mm Vent valve	No	23		
48	110mm Straight pan connector	No	22		
49	110mm Bent pan connector	No	5		
	<u>Testing</u>				
50	Testing waste pipe system	Item			
	MAIN WATER SUPPLIES				
	Galvanised steel pipes				
51	25mm Pipes laid in and including trenches not exceeding 1m deep	m	200		
52	32mm Pipes laid in and including trenches not exceeding 1m deep	m	200		
	Extra over galvanised steel pipes for steel fittings				
53	25mm Fittings	No	60		
54	32mm Elbow	No	40		
55	32mm Tee / reducing tee	No	55		
56	32mm Longscrew connection / union	No	70		
	Class 12 uPVC pressure pipes				
57	75mm Pipes laid in and including trenches	m	400		
	Extra over uPVC pressure piper for solvent welded pressure fittings				
58	75mm Bend	No	10		
59	75mm End Cap	No	2		
60	75mm Reducer	No	13		
61	75mm Tee	No	4		
	Carried to Collection			5	
	Carried to Collection			R	
	Bill No. 14				
	Plumbing And Drainage (provisional)  84				
	04				

		Unit	Quantity	Rate	Amount
62	75mm Reducing tee	No	15		
63	25mm Adaptor to mild steel	No	18		
64	32mm Adaptor to mild steel	No	18		
	WATER SUPPLIES				
	Class 460/2 copper pipes				
65	15mm Pipes	m	624		
66	22mm Pipes	m	246		
67	28mm Pipes	m	207		
68	35mm Pipes	m	204		
	Extra over Class 2 copper pipes for capillary fittings				
69	15mm Fittings	m	704		
70	22mm Fittings	m	425		
71	28mm Fittings	m	486		
72	35mm Elbow	m	216		
73	35mm Straight reducing coupler	m	243		
74	35mm Tee	m	261		
75	35mm Reducing tee	m	258		
	Extra over Class 2 copper pipes for brass compression fittings				
76	15mm Fittings	No	44		
77	22mm Fittings	No	49		
78	28mm Fittings	No	61		
79	35mm Copper to iron straight connector	No	61		
	ELECTRIC WATER HEATERS				
	<u>"Zip" - Hydroboils</u>				
80	"Zip" Hydroboil 2,5 litre (Code: 380000) instant boiling water unit with white epoxy powder coated outer case,				
	and two-way tap, complete with twin-chamber technology, installed in accordance with manufacturer's				
	recommendations	No	3		
81	"Zip" white powder coated 15 litre hydroboil (Code:				
	2610014), plugged and screwed to wall and fitted under 1 year guarantee	No	4		
	Carried to Collection			R	
	Bill No. 14				
	Plumbing And Drainage (provisional)				
	85				

		Unit	Quantity	Rate	Amount	
	W. wiles I. W. Connector					
82	<ul><li><u>"Kwikok" Geyser</u></li><li>"Kwikot Megaflo" 450 litre electric geyser reticulated in</li></ul>					
02	series, including special contractor's switch (Code:IND-					
	EC-450), complete as per manufacturer's instructions	No	6			
	"Kwikot" Heatpump					
83	"Kwikot" 110KW industrial heat pump (Code: HP-010), complete as per manufacturer's instructions	No	11			
	AS-BUILT DRAWINGS					
84	Provision of as-built drawings	Item				
	FIRE APPLIANCES ETC					
	Fire hydrant					
85	Fire hydrant for 150mm diameter pipe	No	4			
	Carried to Collection			R		
	Bill No. 14					
	Plumbing And Drainage (provisional)					
	86					

BILL NO. 14		
PLUMBING AND DRAINAGE (PROVISIONAL)		
COLLECTION		
	Page No	
Brought Forward from Page	78	
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Carried to Summany		
Carried to Summary	R	
Bill No. 14  Plumbing And Drainage (provisional)		
Plumbing And Drainage (provisional)  87		

	Unit	Quantity	Rate	Amount
BILL NO. 15 GLAZING				
(CPAP WORK GROUP NO. 150 UNLESS OTHERWISE STATED)  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid				
Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 15 Glazing				
88				

Unit Quantity Rate Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE most of the said tem. Where the contractor is to note that confravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinather designated, will be viewed and dealt with in an extremely serious light by the viewed and dealt with in an extremely serious light develop, employ and provide stills through the Expanded Public Works Programme.  Float glass  TOPS. SHELVES, DOORS, MIRRORS, ETC  5mm Silvered float glass copper backed mirrors with polished addes, holed for and fixed with chromium plated dome capped intror screws with rubber buffers to plugs in brickwork or concrete  300X400mm high SANS 1223-1 safety and security glazing materials for buildings - part 1: safety performance of glazing materials under human impact, SANS 10400-N, the application of the national building regulation-part N: Glazing  Carried to Collection  R  Bill No. 15 Glazing
89

			Amount	
BILL NO. 15 GLAZING COLLECTION	Brought Forward from Page	Page No 88 89	Amount	
Bill No. 15 Glazing	Carried to Summary	R		

	Unit	Quantity	Rate	Amount
BILL NO. 16				
PAINTWORK				
(CPAP WORK GROUP NO. 152 UNLESS OTHERWISE STATED)				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to				
therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Bill No. 16 Paintwork				
91				

	Unit	Quantity	Rate	Amount
I about Intensive				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated,				
will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
General preparation to all surfaces:				
All surfaces (interior and exterior) shall be thoroughly cleaned down before decoration to remove all dirt, grease, dust and rust, etc. as applicable by whatever means necessary without damage to surfaces beneath, and in strict accordance with the paint manufacturers instructions to leave same in perfect condition to receive new paintwork.				
All surfaces shall be sanded down smooth prior to application of first coat of paint and between succeeding coats.				
Spot sheets are to be provided to prevent spotting of all adjacent surfaces.				
Finishing coats:				
Bidders are to note that where two or more finishing coats are specified, this is the minimum requirement in order to achieve a finished surface of high quality. Should insufficient cover be achieved after said minimum, additional coats are to be applied at no additional cost to the Contract and to the satisfaction of the Principal Agent. Onus therefore rests on the Contractor to ensure that preparatory work is sufficient.				
Sight lines:				
The Contractor is to note that careful attention is required to ensure that paintwork does not encroach over sight lines. Masking of adjacent surfaces is to be carried out if deemed necessary or if instructed by the Principal Agent, at no additional cost.				
Carried to Collection			R	
Bill No. 16				
Paintwork				
92				

		Unit	Quantity	Rate	Amount
	Surfaces to be dry:				
	All plastered wall and ceiling surfaces shall be perfectly dry prior to application of paint.				
	Sanding to timber floors:				
	Timber floors are to be sanded as necessary to achieve a smooth surface free of defects, indentations, imperfections and the like, and suitable to painting of a high quality finish. No additional claims in this regard will be entertained.				
	Moisture content:				
	The moisture level of the substrate must be less than 8% on the BD2 scale measure on the Dozer Hygrometer before applying the primer				
	PAINTWORK TO NEW WORK				
	ON INTERNAL FLOATED PLASTER SURFACES				
	Prepare surface as per manufacturer's specification and apply 1 undercoat & 2 coats Plascon Wall and All				
1	On internal walls	m²	5 308		
	ON PLASTERBOARD SURFACES				
	Prepare, stop and apply 1coat Plascon plaster primer (uc 56) and 2ct plascon velvaglo satin sheen white (vl01) sand lightly. When dry. All excess compound to be feathered out and cleaned off, all to manufacturer's specification				
2	Ceilings and cornices	m²	727		
3	On fascias and barge boards	m²	348		
4	On window sills not exceeding 300mm girth	m	171		
	ON INTERNAL SMOOTH CONCRETE SURFACES				
	Prepare surface as per manufacturer's specification and apply 1 undercoat & 2 coats Plascon Velvaglo.  Colour RAL 9018, Papyrus White				
5	Ceilings and cornices	m²	11		
	ON METAL SURFACES				
	Prepare surface as per manufacturer's specification and apply 1 undercoat & 2 coats Plascon Velvaglo.				
6	Door frames	m²	80		
7	Gates, grilles, burglar screens, balustrades, etc (both				
	sides measured over the full flat area)	m²	20		
	Carried to Collection			R	
	Bill No. 16				
	Paintwork				
	93				

		Unit	Quantity	Rate	Amount
	ON WOOD SURFACES  Prepare surface as per manufacturer's specification and apply 1 coat primer and 2 coats premium quality polyurethane enamel paint				
8	Doors	m²	301		
	Carried to Collection			R	
	Bill No. 16 Paintwork				
	94				

			Amount	
BILL NO. 16 PAINTWORK COLLECTION		Page No		
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Bill No. 16 Paintwork				
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			Amount
Bill No.	SUMMARY	Page	
1	EARTHWORKS (PROVISIONAL)	5	
2	CONCRETE, FORMWORK AND REINFORCEMENT	12	
3	MASONRY	17	
4	WATERPROOFING	21	
5	ROOF COVERINGS	27	
6	CARPENTRY AND JOINERY	42	
7	CEILINGS PARTITIONS AND ACCESS FLOORING	47	
8	FLOOR COVERINGS	50	
9	IRONMONGERY	56	
10	STRUCTURAL STEELWORK (PROVISIONAL)	60	
11	METALWORK	68	
12	PLASTERING	73	
13	TILING	77	
14	PLUMBING AND DRAINAGE (PROVISIONAL)	87	
15	GLAZING	90	
16	PAINTWORK	95	
	Carried to Next	R	
	SOIVIIVIANI		
	96		

## SECTION NO. 1 SITE WORKS

	Unit	Quantity	Rate	Amount
SECTION NO. 1				
SITE WORKS				
BILL NO. 1				
<u>EARTHWORKS</u>				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection Section No. 1 Bill No. 1			R	
Earthworks				
1-2				

Bilders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said frem on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.  **Nature of ground**  *Nature of ground**  *Nature of ground is assumed to be loose sandy material, therefore learth', but possibly interspersed with "soft rock" or Thard rock.  *A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.  *Carting away of excavated material  *Descriptions of carting away of excavated material shall be deemed to include loading excavated material ento include loading excavated material ento include loading excavated material onto include loading excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.  **Builking**  *No allowance has been made for Bulking.  **Filling**  No allowance has been made for Bulking, shall include for all selection and any necessary multiple handling in clause 1 page 6 of the Standard System of Measuring Bulking  *No allowance has been made for Bulking shall include for all selection and any necessary multiple handling of material  **Tosting**  *Carried to Collection**  **Carried to Collection**  **Car		Unit	Quantity	Rate	Amount
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Carried to Collection  Section No. 1  Bill No. 1  Earthworks	Testing				
Section No. 1 Bill No. 1 Earthworks					
	Section No. 1			R	
1-3	Earthworks				
	1-3				

		Unit	Quantity	Rate	Amount	
	Proximity to existing structures					
	Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.					
	THE FOLLOWING TO COURTYARDS					
	<u>Earthworks</u>					
1	Excavation in earth not exceeding 2m deep for reducing levels under floors	m³	314			
	Extra over bulk excavation in soft material for excavation in :					
2	Soft rock	m³	31			
3	Intermediate material	m³	25			
4	Hard rock	m³	16			
5	Keeping excavations free of all water other than subterranean water	Item				
6	Risk of collapse of sides of trench and hole excavations not exceeding 1,5m deep	m²	112			
	Extra over all excavation for carting away					
7	Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor	m³	314			
8	150mm Thick earth filling of G2 quality supplied by the contractor compacted to 90% Mod AASHTO density	m³	79			
9	150mm Thick earth filling of G5 quality supplied by the contractor compacted to 95% Mod AASHTO density	m³	79			
10	Coarse river sand filling supplied by the contractor	m³	26			
11	Reinforced concrete Class 25/19 in surface beds	m³	68			
12	Allow for all necessary concrete test cubes size 150 x 150 x 150mm cast from batches of concrete required for the entire contract as specified, made, stored, cured and tested in accordance with SABS Methods 861 and 863, including use of approved cube moulds, transporting to an approved testing laboratory for testing, paying all charges and submitting reports to the Head: Works	Sets	12			
13	Finishing top surfaces of concrete smooth with a power float to surface beds, slabs, etc to falls	m²	587			
14	Rough formwork to sides edges, risers, ends and reveals not exceeding 300mm high or wide	m	208			
	Carried to Collection			R		
	Section No. 1					
	Bill No. 1					
	Earthworks 1-4					
J	1-4					

		Unit	Quantity	Rate	Amount	
15	Expansion joints with bitumen impregnated softboard between vertical concrete surfaces 15mm Joints not exceeding 300mm wide	m	220			
16	3 x 40mm Deep saw cut joints in top of concrete	m	419			
17	REF 193 fabric reinforcement	m²	587			
18	One layer of 250 micron green polyethylene waterproof sheeting sealed at laps with pressure sensitive tape Under surface beds	m²	577			
	REMOVAL OF TREES ETC					
	Cutting down and removing, grubbing up roots and filling in holes					
19	Tree exceeding 500mm and not exceeding 1000mm girth	No	50			
20	Tree exceeding 1000mm and not exceeding 1500mm girth	No	20			
21	Tree exceeding 1500mm and not exceeding 2000mm girth	No	5			
22	Tree exceeding 2000mm and not exceeding 2500mm girth	No	1			
23	Tree exceeding 2500mm and not exceeding 3000mm girth	No	1			
24	Tree exceeding 3000mm and not exceeding 3500mm girth	No	2			
25	Tree exceeding 3500mm and not exceeding 4000mm girth	No	1			
26	Tree exceeding 4000mm and not exceeding 4500mm girth	No	1			
	Carried to Collection			R		
	Section No. 1					_
	Bill No. 1 Earthworks					
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	SITE WORKS		
	SECTION SUMMARY		
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1	EARTHWORKS	1-6	
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	Corried to Final Currence	_	
	Carried to Final Summary Section No. 1	R	
	SECTION SUMMARY		
	1-7		

## SECTION NO. 2 BULK EARTHWORKS

	Unit	Quantity	Rate	Amount
SECTION NO. 2				
BULK EARTHWORKS				
BILL NO. 1				
<u>EARTHWORKS</u>				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 1200 and SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 1200 and SANS10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
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Earthworks				
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	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Nature of ground				
The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'				
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.				
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, and dumping at registered dumpsites.				
Bulking				
No allowance has been made for Bulking.				
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				
<u>Testing</u>				
Prices for filling are to include for all necessary density tests in accordance with the relevant sections of SANS.				
Carried to Collection Section No. 2 Bill No. 1			R	
Earthworks				
2-3				

		Unit	Quantity	Rate	Amount	
	Proximity to existing structures					
	Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.					
	SITE CLEARANCE ETC					
	Site Clearance					
1	Clear the whole area of the site to be built upon including the removal of all small shrubs and trees with a trunk not exceeding 200mm girth measured 1m above ground level	m²	16 298			
2	Stripping average 600mm thick layer of top soil and colluvium material and stockpiling on site	m³	4 980			
	BULK EXCAVATION, EXCAVATION, FILLING, ETC					
	Open face excavation in soft material over sloping site not exceeding 2m deep.					
3	In bulk excavation to reduce levels and cut and form platform, including setting aside for later re-use or removal.	m³	5 800			
	Extra over bulk excavation in soft material for excavation in :					
4	Soft rock	m³	1 000			
5	Intermediate material	m³	1 200			
6	Hard rock	m³	250			
7	Boulders class A	m³	700			
	Extra over bulk excavations in earth for breaking up and removing					
8	Brickwork	m³	2			
9	Unreinforced concrete	m³	3			
10	Reinforced concrete	m³	3			
	Extra over all excavation for carting away					
11	Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor	m³	10 780			
	Risk of collapse of excavations					
12	Sides of bulk excavations not exceeding 1,5m deep.	m²	258			
13	Sides of bulk excavations exceeding 1,5m deep	m²	516			
	Carried to Collection			R		
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	Bill No. 1					
	Earthworks					
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		Unit	Quantity	Rate	Amount	
14	bailing (allowance per m3 of excavation)	Item				
	FILLING, ETC  Filling of gravel-soil material G8 supplied by the					
	Filling of gravel-soil material G8 supplied by the contractor, compacted to 93% Mod AASHTO density	_				
15	Over site to make up levels	m³	1 800			
	Carried to Collection			R		
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## SECTION NO. 3 ROADWORKS

	Unit	Quantity	Rate	Amount
SECTION NO. 3				
ROADWORKS				
BILL NO. 1				
<u>EARTHWORKS</u>				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
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<u>Labour Intensive</u>	
Diddon on to note well that an aific items within these	
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.	
Nature of ground	
The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'	
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.	
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, and dumping at registered dumpsites.	
Bulking	
No allowance has been made for Bulking.	
<u>Filling</u>	
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	
<u>Testing</u>	
Prices for filling are to include for all necessary density tests in accordance with the relevant sections of SANS.	
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		Unit	Quantity	Rate	Amount
	Proximity to existing structures				
	Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.				
	EXCAVATION ETC				
	Excavation in earth not exceeding 2m deep				
1	Reduced levels under floors.	m³	3 507		
	Extra over trench and hole excavations in earth for excavation in				
2	Soft rock.	m³	351		
3	Intermediate material	m³	281		
4	Hard rock	m³	175		
	Extra over all excavations for carting away				
5	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m³	3 507		
	Keeping excavations free of water				
6	Keeping excavations free of all water	Item			
	Base course constructed of filling supplied from by contractor				
7	Selected filling (G2), carted on to site, spread and levelled and compacted in layers not exceeding 150mm thick to 102% Mod AASHTO density, all in accordance with SANS 10400	m³	520		
8	Selected filling (G5), carted on to site, spread and levelled and compacted in layers not exceeding 150mm thick to 98% Mod AASHTO density, all in accordance with SANS 10400	m³	1 600		
9	Selected filling (G7), carted on to site, spread and levelled and compacted in layers not exceeding 150mm thick to 95% Mod AASHTO density, all in accordance with SANS 10400	m³	1 940		
10	Coarse river sand supplied by the contractor under floors				
10	etc	m³	111		
	Compaction of surfaces				
11	Compact ground surfaces under pavings,roads, etc including scarifying for a depth of 150mm, adding G8 material where necessary and compacting to a minimum CBR of 93% Mod AASHTO	m²	3 684		
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		Unit	Quantity	Rate	Amount	
12	Compact ground surfaces under pavings,roads, etc including scarifying for a depth of 300mm, adding G8 material where necessary and compacting to a minimum CBR of 93% Mod AASHTO	m²	2 400			
	Prescribed density tests on filling					
13	Mod. AASHTO Density test	No	24			
14	California Bearing Ratio test	No	6			
15	Field density test including Optimum Moisture Content (four reading per test)	No	32			
16	Atterberg limits tests, carried out at an approved laboratory, of representative samples of fill material as indicated on site by the Engineer (minimum set of three)	No	12			
	Prepare and apply one coat reflective road marking paint on bituminous road surfacing, precast concrete,paving blocks, etc					
17	100mm Wide white lines (un-broken) with an approved road marking paint.	m	210			
18	900mm High white or yellow lettering or numeral with an approved road marking paint.	No	68			
19	4000mm High white STOP sign lettering with an approved road marking paint. (GM7.1)	No	4			
20	300mm Wide x 4000mm High white ARROW sign with an approved road marking paint. (WM7.3)	No	3			
21	Paraplegic parking sign with an approved road marking paint. (RM17.3)	No	4			
	ROAD SIGNS					
22	900mm Diameter regulation stop sign in accordance with SABS 1519 fitted and fixed on creosoted pole, 4500mm high bedded in 450 x 450 x 600mm deep 25Mpa concrete footing, including all necessary excavation, etc.	No	1			
	PRECAST AND BRICK PAVING					
	"Corobrik PA Paver- Burgundy" or other approved 200 x 95mm brick paving on and including 20mm thick layer of river sand					
23	65mm Paving in herringbone pattern to pedestrain areas, etc to falls	m²	1 488			
24	Extra over for straight edge blocks.	m	1 210			
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		Unit	Quantity	Rate	Amount	
	"Corobrik PA Paver- Corolock" or other approved					
	paving bricks with butt joints on 25mm thick river					
	sand bed with sand swept into joints (preparation of ground or filling elsewhere)					
25	80mm Paving in herringbone pattern to parking areas,					
	etc to falls	m²	2 196			
26	Extra over for straight edge blocks.	m	551			
	<u>Sundries</u>					
27	Apply "Bromosil" or other approved herbicide to river-					
	sand bedding under paving in strict accordance with the manufacturers instructions.	m²	3 684			
	PRECAST KERBS, ACCESSORIES, ETC.	111	3 004			
	Precast concrete finishes smooth on exposed					
	surfaces including bedding, cutting and pointing					
28	Kerb (SABS 927 fig 3) with 450 x 125mm unreinforced					
	concrete footing, 150 x 150mm Class C triangular concrete haunching at back of each joint and Class C					
	concrete infill in front with cemnet grouted joints,					
	including excavation, backfilling, etc	m	25			
29	Kerb (SABS 927 fig 6) with 445 x 100mm unreinforced concrete footing, 150 x 150mm Class C triangular					
	concrete haunching at back of each joint and Class C					
	concrete infill in front with cement grouted joints, including excavation, backfill, etc.	<b>m</b>	1 172			
	-	m	1 1/2			
30	Kerb (SABS 927 fig 6) ith 445 x 100mm unreinforced concrete footing, 150 x 150mm Class C triangular					
	concrete haunching at back of each joint, circular on plan not exceeding 4m radius formed with short lengths					
	of straight kerb, including excavation, backfill, etc.	m	30			
31	Kerb (SABS 927 fig 12) with 225 x 100mm unreinforced					
01	concrete footing, 75 x 75mm Class C triangular concrete					
	haunching at back of each joint and Class C concrete infill in front with cement grouted joints, including					
	excavation, backfill, etc.	m	577			
32	Kerb (SABS 927 fig 12) with 225 x 100mm unreinforced					
	concrete footing, 75 x 75mm Class C triangular concrete haunching at back of each joint and Class C concrete					
	infill in front with cement grouted joints, circular on plan					
	not exceeding 4m radius formed with short lengths of straight kerb, including excavation, backfill, etc.	m	27			
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		Unit	Quantity	Rate	Amount
33	Document - page 111).	No	5		
34	"Cannon" or other approved cast iron bollard  150mm Diameter x 1200mm High removable bollard on and including galvanised base tube cast 300mm deep into 25Mpa mass concrete base size 500 x 500 x 500mm, with top of base tube flush with natural ground level, including excavations, carting away, formwork, etc.	No	3		
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	Carried to Collection Section No. 3 Bill No. 1			R	
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## SECTION NO. 4 FENCING AND GATES

	Unit	Quantity	Rate	Amount
SECTION NO. 4  FENCING AND GATES BILL NO. 1  PERIMETER FENCING  SUPPLEMENTARY PREAMBLES  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	Unit	Quantity	Rate	Amount
Carried to Collection Section No. 4 Bill No. 1 Perimeter Fencing 4-2			R	

		Unit	Quantity	Rate	Amount	
	Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
	FENCING					
	"Cochrane ClearVu" Hot-dipped security fencing galvanised with and including marine fusion bond coated security fence with posts, stays, gates, etc. including hot-dipped galvanised steel bolts, etc., site clearance and preparation of ground					
1	Security fence 1.8m high vertically with 76,2 x 12,7mm aperture with and including 4 x 50mm deep "V" formation horizontal recessed bands, 2 x 75mm 70 degrees flanges along sides, single bolt comb clamps, and double bolt comb clamp, all as per manufacturer	m	553			
	Hot dipped galvanised posts					
2	1.8m High post with and including 200 x 200 x 10mm base four times holed welded to one end and polymer cap to the other end, and including 85 x 85mm taper posts cast in 400 x 400 x 600mm deep concrete base. (base elsewhere measured) (Labour Intensive)	No	280			
3	100mm Diameter x 3mm galvanised gate or straining post 1000mm long with cap to top end and other end welded to 300 x 300 x 6mm thick plate cast in and in 450 x 450 x 900mm deep concrete base. (base elsewhere measured) (Labour Intensive)	No	24			
4	100mm Diameter x 3mm galvanised gate or straining post 1500mm long with cap to top end and other end welded to 300 x 300 x 6mm thick plate cast in and in 450 x 450 x 900mm deep concrete base. (base elsewhere measured) (Labour Intensive)	No	4			
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		Unit	Quantity	Rate	Amount	
5	100mm Diameter x 3mm galvanised gate or straining post 1800mm long with cap to top end and other end welded to 300 x 300 x 6mm thick plate cast in and in 450 x 450 x 900mm deep concrete base. (base elsewhere measured) (Labour Intensive)	No	4			
6	100mm Diameter x 3mm galvanised gate or straining post 3300mm long with cap to top end and other end welded to 300 x 300 x 6mm thick plate cast in and in 450 x 450 x 900mm deep concrete base. (base elsewhere measured) (Labour Intensive)	No	2			
7	100mm Diameter x 3mm galvanised gate or straining post 6000mm long with cap to top end and other end welded to 300 x 300 x 6mm thick plate cast in and in 450 x 450 x 900mm deep concrete base. (base elsewhere measured) (Labour Intensive)	No	2			
	The following in 20MPa/19mm concrete bases	140				
8	Unreinforced concrete fence post base size 400 x 400 x 600mm deep, including all necessary excavation, formwork, etc. (Labour Intensive)	No	280			
9	Unreinforced concrete" fence post base size 450 x 450 x 900mm deep, including all necessary excavation, formwork, etc. (Labour Intensive)	No	36			
	Gates, etc as per architects drawing No. 23002 - TD 401 REV A					
10	1000 x 2100mm High Pedestrian gate with and including "Cisa" gate locking mechanism, as per specialist's details (G02)	No	12			
11	1500 x 2100mm High double swing gate with and including "Cisa" gate locking mechanism, as per specialist's details (G04)	No	2			
12	1800 x 2100mm High double swing gate with and including "Cisa" gate locking mechanism, as per specialist's details (G03)	No	2			
13	3300 x 2100mm High double swing gate with and including "Cisa" gate locking mechanism, as per specialist's details (G05)	No	1			
14	6000 x 2100mm High sliding gate on steel track with and including "Cisa" gate locking mechanism, as per specialist's details (G01)	No	1			
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## SECTION NO. 5 SOIL DRAINAGE

	Unit	Quantity	Rate	Amount	
SECTION NO. 5 SOIL DRAINAGE BILL NO. 1 EXTERNAL WORKS  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions  Take note that these Model Bills of Quantities utilise abbreviated descriptions	Unit	Quantity	Rate	Amount	
Carried to Collection Section No. 5 Bill No. 1 External Works 5-2			R		

	Unit	Quantity	Rate	Amount
The Model Preambles for Trades 2008 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicablenone (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications				
Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2008  Working at Heights  Bidders are to note that the work to be undertaken will				
require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Labour Intensive				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Carried to Collection Section No. 5 Bill No. 1 External Works			R	
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		Unit	Quantity	Rate	Amount
	SOIL DRAINAGE				
	uPVC Class 34 pipes				
1	160mm pipes laid in and including trenches not exceeding 1m deep	m	93		
2	160mm pipes laid in and including trenches exceeding 1m not exceeding 2m deep	m	93		
3	160mm pipes laid in and including trenches exceeding 2m not exceeding 3m deep	m	144		
	Extra over uPVC Class 34 pipes for fittings				
4	150mm Junction. (Labour Intensive)	No	30		
5	150mm End cap. (Labour Intensive)	No	20		
	Pipe excavation sundries				
6	Extra only over selected for earth filling from the excavations in back filling with an approved imported fine granular filling to 300mm below top of trench	m³	540		
	GULLIES				
7	"Type 8" or other approved rectangular polymer curve gulley complete with and including cover, 380 x 380 x 170mm precast concrete gulley surround on 75mm Class C concrete base and fitted with 187mm diameter uPVC grating. (Labour Intensive)	No	21		
8	"Type 2B" or other approved circular polymer curve gulley complete with and including cover, 380 x 380 x 170mm precast concrete gulley surround on 75mm Class C concrete base and fitted with 187mm diameter uPVC grating. (Labour Intensive)	No	21		
	SOIL DRAIN INSPECTION CHAMBERS, MANHOLES, ETC				
	Precast concrete circular inspection chambers (covers elsewhere measured) including excavations in soft material, risk of collapse, backfilling, etc				
9	Inspection chamber 1000mm diameter and exceeding 1000mm and not exceeding 1500mm deep internally. (Labour Intensive)	No	7		
10	Inspection chamber 1000mm diameter and exceeding 1500mm and not exceeding 2000mm deep internally. (Labour Intensive)	No	6		
	(	No	0		
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount	
11	Inspection chamber 1000mm diameter and exceeding 2000mm and not exceeding 2500mm deep internally. (Labour Intensive)	No	6			
12	Inspection chamber 1000mm diameter and exceeding 2500mm and not exceeding 3000mm deep internally. (Labour Intensive)	No	5			
13	Gratings, covers, etc  Type 4A Fiberrite or other approved composite circular					
10	manhole cover and frame. (Labour Intensive)	No	24			
14	Sundries  Cast iron step iron embedded in side of inspection chamber	No	115			
15	Cutting into side of existing inspection chamber for and connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching. (Labour Intensive)	No	1			
16	Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Engineer. (All defective work to be replaced at the Contractor's expense)	Item				
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	Section No. 5		
	SECTION SUMMARY		
	5-7		

## SECTION NO. 6 SEPTIC TANKS AND SOAK AWAYS

	Unit	Quantity	Rate	Amount	
SECTION NO. 6 SEPTIC TANKS AND SOAK AWAYS BILL NO. 1 EARTHWORKS  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heights:  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	Unit	Quantity	Rate	Amount	
Carried to Collection Section No. 6 Bill No. 1 Earthworks 6-2			R		

	Unit	Quantity	Rate	Amount
Labour Intensive				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to				
develop, employ and provide skills through the Expanded Public Works Programme.				
Nature of ground  The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'				
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.				
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, and dumping at registered dumpsites.				
Bulking				
No allowance has been made for Bulking.				
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				
<u>Testing</u>				
Prices for filling are to include for all necessary density tests in accordance with the relevant sections of SANS.				
Carried to Collection Section No. 6 Bill No. 1			R	
Earthworks				
6-3				

		Unit	Quantity	Rate	Amount
	Proximity to existing structures				
	Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.				
	The following in Septic Tanks				
	<u>EARTHWORKS</u>				
	Excavations in earth not exceeding 2m deep				
1	Holes	m³	77		
	Excavations in earth exceeding 2m and not exceeding 4m deep				
2	Holes	m³	27		
	Extra over bulk excavation in soft material for excavation in :				
3	Soft rock	m³	10		
4	Intermediate material	m³	8		
5	Hard rock	m³	5		
	Extra over all excavation for carting away				
6	Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor	m³	104		
	Risk of collapse of excavations				
7	Sides of bulk excavations not exceeding 1,5m deep.	m²	56		
8	Sides of bulk excavations exceeding 1,5m deep	m²	45		
	Keeping excavation free of water				
9	Keeping excavations free of all water other than subterranean water	Item			
	FILLING ETC				
	Compaction of surfaces				
10	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable G8 material where necessary and compacting to 93% Mod AASHTO density	m²	38		
	Filling of natural gravel material G5 supplied by the contractor, compacted to 98% Mod AASHTO density				
11	Backfilling to trenches, holes, etc	m³	45		
	Carried to Collection			R	
	Section No. 6				
	Bill No. 1 Earthworks				
	6-4				

		Unit	Quantity	Rate	Amount	
	Selected topsoil filling obtained from the					
	excavations and/or prescribed stock piles on site, lightly consolidated					
12	Over site	m³	6			
	WEED KILLERS, INSECTICIDES, ETC					
	Soil insecticide in accordance with SANS 5859					
13	To bottoms and sides of trenches etc	m²	140			
	<u>TESTS</u>					
	Prescribed tests to determine degree of compaction or other properties of ground or filling					
14	Modified AASHTO Density test	No	5			
	THE FOLLOWING IN SOAKAWAY					
	<u>EARTHWORKS</u>					
	Excavations in earth not exceeding 2m deep					
15	Holes	m³	29			
	Extra over bulk excavation in soft material for excavation in :					
16	Soft rock	m³	3			
17	Intermediate material	m³	2			
18	Hard rock	m³	1			
	Extra over all excavation for carting away					
19	Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor	m³	29			
	Risk of collapse of excavations					
20	Sides of bulk excavations not exceeding 1,5m deep.	m²	95			
21	Sides of bulk excavations exceeding 1,5m deep	m²	13			
	Keeping excavation free of water					
22	Keeping excavations free of all water other than subterranean water	Item				
	FILLING ETC					
	Earth filling obtained from the excavations (not compacted)					
23	To top of soakaway	m³	2			
24	Coarse river sand supplied by the contractor to top of soakaway	m³	2			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 1					
	Earthworks 6-5					
	0-0				]	

		Unit	Quantity	Rate	Amount	
	Compaction of surfaces					
25	Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable G8 material where necessary and compacting to 93% Mod AASHTO density	m²	17			
	"Kaytech" or other approved geofabric material					
26		m²	133			
	<u>TESTS</u>					
	Prescribed tests to determine degree of compaction or other properties of ground or filling					
27	Modified AASHTO Density test	No	6			
	In-situ concrete collar					
28	300 x 500 x 150mm high concrete collar	No	6			
	Carried to Collection Section No. 6			R		
	Bill No. 1					
	Earthworks					
	6-6					

BILL NO. 1 EARTHWORKS COLLECTION	Page No	
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Carried To Section Summary	R	
Section No. 6 Bill No. 1 Earthworks		
6-7		

	Unit	Quantity	Rate	Amount
SECTION NO. 6				
SEPTIC TANKS AND SOAK AWAYS				
BILL NO. 2				
CONCRETE, FORMWORK AND REINFORCEMENT				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest				
edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Section No. 6			IX.	
Bill No. 2				
Concrete, Formwork And Reinforcement				
6-8				

	Unit	Quantity	Rate	Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.	Unit	Quantity	кате	Amount
Concrete				
Rates for concrete shall be deemed to include for all necessary transportation, hoisting, etc. to render a perfect, sound and stable installation all to the satisfaction of the Structural Engineer.				
Bidders are to note that delay claims related to the supply of concrete decking, reinforcment, etc. will not be entertained and are thus urged to take congnisance of quantities required and secure supply accordingly				
Cost of tests				
The costs of making, storing and testing of concrete test cubes as required under the relevent part of SANS, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately).				
<u>Formwork</u>				
Formwork to soffits of solid slabs shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described				
Formwork to soffits of slabs and beams shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
Carried to Collection Section No. 6 Bill No. 2			R	
Concrete, Formwork And Reinforcement				
6-9				

		Unit	Quantity	Rate	Amount	
	Formwork to sides of bases, pile caps, ground beams 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"					
	Finishing					
	Finishing the surfaces of surface beds and slabs level and smooth to receive screed, grano or any other finish are deemed to be included in the rate for the surface bed or slab.					
	Mesh reinforcement					
	Mesh reinforcement is measured net, contractor to take condideration of lapping					
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	15Mpa/19mm concrete					
1	Surface blinding under footings and bases	m³	2			
	REINFORCED CONCRETE CAST ON/IN FORMWORK					
	25MPa/19mm concrete					
2	Slabs including beams and inverted beams	m³	5			
3	Walls in foundations (Provisional)	m³	13			
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	25MPa/19mm concrete					
4	Bases	m³	8			
	TEST CUBES					
	<u>Test Cubes</u>					
5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	15			
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a wood float					
6	Surface beds, slabs, etc	m²	57			
	Carried to Collection			R		
	Section No. 6					_
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	6-10					

		Unit	Quantity	Rate	Amount	
	ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111)					
	Rough formwork to sides					
7	Walls in foundations (Provisional)	m²	138			
	Rough formwork to soffits					
8	Slabs propped up exceeding 1.5m and not exceeding 3.5m high	m²	13			
	REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)					
	Mild steel reinforcement to structural concrete work					
9	Bars of various diameter	Tonnes	0.80			
	High tensile steel reinforcement to structural concrete work					
10	Bars of various diameter	Tonnes	3.18			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 2					
	Concrete, Formwork And Reinforcement 6-11					
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BILL NO. 2  CONCRETE, FORMWORK AND REINFORCEMENT  COLLECTION	Page No	
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	Unit	Quantity	Rate	Amount
SECTION NO. 6				
SEPTIC TANKS AND SOAK AWAYS				
BILL NO. 3				
WATERPROOFING				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Section No. 6			ĸ	
Bill No. 3				
Waterproofing				
6-13				

		Unit	Quantity	Rate	Amount
	Labour Intensive				
	Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
	Waterproofing				
	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				
	Proprietary branded products:				
	Proprietary branded products are to be applied in strict accordance with the manufacturers instructions. Should the manufacturers instructions be found not to have been followed in any process relating to the product in relation to, but not limited to transportation, application (rates and methodology), treatment of existing surfaces etc., then all liability for such product shall be transferred to the appointed Main Contractor.				
	DAMPPROOFING OF WALLS AND FLOORS				
	Two coats bitumen emulsion waterproof coating				
1	On concrete walls and columns in foundations (Provisional)	m²	64		
	WATERPROOFING				
	"Prostruct" 526 MCI, or other approved, Cementitious waterproofing system				
2	On floors and walls	m²	92		
	Carried to Collection			R	
	Section No. 6				
	Bill No. 3				
	Waterproofing 6-14				
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BILL NO. 3 WATERPROOFING COLLECTION		Page No	
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Section No. 6 Bill No. 3			
Waterproofing	6-15		

	Unit	Quantity	Rate	Amount	
SECTION NO. 6 SEPTIC TANKS AND SOAK AWAYS BILL NO. 4 PLUMBING AND DRAINAGE  SOIL DRAINAGE (CPAP WORK GROUP NO. 146) The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence. Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	Unit	Quantity	Rate	Amount	
Carried to Collection Section No. 6 Bill No. 4 Plumbing And Drainage 6-16			R		

	Unit	Quantity	Rate	Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Wire gratings				
Descriptions of gutter outlets shall be deemed to include wire balloon gratings				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600				
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				
"Polycop" polypropylene pipes				
Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" compression fittings				
Pipes shall be firmly fixed to walls 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				
Carried to Collection			R	
Section No. 6			ĸ	
Bill No. 4				
Plumbing And Drainage				
6-17				

		Unit	Quantity	Rate	Amount
	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 antisyphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016				
	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				
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, casting in, building in or suspending not exceeding 1m below suspension level				
	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 SANS (provision for disinfection elsewhere)				
	<u>General</u>				
	Rates for installation of sanware and all drainage and supply piping of all types will be deemed to include for fair cutting around pipes and making good to floor and wall finishes.				
	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)				
	uPVC Class 34 pipes				
1	160mm pipes laid in and including trenches not exceeding 1m deep	m	30		
	Carried to Collection			R	
	Section No. 6 Bill No. 4			K	
	Plumbing And Drainage				
	6-18				

		Unit	Quantity	Rate	Amount
	Extra over uPVC Class 34 pipes for fittings				
2	150mm Junction. (Labour Intensive)	No	4		
3	150mm Bends. (Labour Intensive)	No	8		
	Fiberite or other approved composite circular manhole cover and frame				
4	600 diameter, type 4A manhole cover and frame	No	6		
	Carried to Collection			R	
	Section No. 6				
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	Plumbing And Drainage 6-19				
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BILL NO. 4 PLUMBING AND DRAINA COLLECTION	<u>AGE</u>	Page No	
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	SECTION NO. 6		
	SEPTIC TANKS AND SOAK AWAYS		
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	Carried to Final Summary	R	
	Section No. 6 SECTION SUMMARY		
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## SECTION NO. 7 ATTENUATION TANK

	Unit	Quantity	Rate	Amount
SECTION NO. 7 ATTENUATION TANK BILL NO. 1 EARTHWORKS  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	Unit	Quantity	Rate	Amount
Carried to Collection Section No. 7 Bill No. 1 Earthworks 7-2			R	

	Unit	Quantity	Rate	Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Nature of ground				
The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'				
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.				
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, and dumping at registered dumpsites.				
Bulking				
No allowance has been made for bulking				
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				
<u>Testing</u>				
Prices for filling are to include for all necessary density tests in accordance with the relevent section of SANS				
Carried to Collection Section No. 7 Bill No. 1 Earthworks			R	
7-3				

		Unit	Quantity	Rate	Amount
	Proximity to existing structures				
	Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.				
	EXCAVATIONS ETC				
	Excavation in earth for basement				
1	Not exceeding 2m deep	m³	405		
2	Exceeding 2m and not exceeding 4m deep	m³	304		
	Extra over all excavations for carting away				
3	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	709		
	Risk of collapse of excavations				
4	Sides of bulk excavations not exceeding 1,5m deep	m²	104		
5	Sides of bulk excavations exceeding 1,5m deep	m²	138		
	Keeping excavations free of water				
6	Keeping excavations free of water other than subterranean water	Item			
	FILLING, ETC				
	Filling of gravel-soil material G7 supplied by the				
	contractor, compacted to 95% Mod AASHTO density				
7	To top of attenuation tank	m³	30		
	Filling of natural gravel material G5 supplied by the contractor, compacted to 98% Mod AASHTO density				
8	To top of attenuation tank	m³	30		
	Compaction of ground surfaces				
9	Compaction of natural or excavated ground surface 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	203		
	WEED KILLERS, INSECTICIDES, ETC				
	Soil insecticide in accordance with SANS 5859				
10	To bottoms and sides of trenches etc	m²	444		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 1 Earthworks				
	7-4				

		Unit	Quantity	Rate	Amount	
11	TESTS  Prescribed tests to determine degree of compaction or other properties of ground or filling  Modified AASHTO Density test	No	8			
	Carried to Collection			R		
	Section No. 7 Bill No. 1 Earthworks 7-5					

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Earthworks	7-6		

	Unit	Quantity	Rate	Amount
SECTION NO. 7				
ATTENUATION TANK				
BILL NO. 2				
CONCRETE, FORMWORK AND REINFORCEMENT				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection Section No. 7 Bill No. 2			R	
Concrete, Formwork And Reinforcement				
7-7				

	Unit	Quantity	Rate	Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Concrete				
Rates for concrete shall be deemed to include for all necessary transportation, hoisting, etc. to render a perfect, sound and stable installation all to the satisfaction of the Structural Engineer.				
Bidders are to note that delay claims related to the supply of concrete decking, reinforcment, etc. will not be entertained and are thus urged to take congnisance of quantities required and secure supply accordin				
Cost of tests				
The costs of making, storing and testing of concrete test cubes as required under the relevent part of SANS, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately).				
<u>Formwork</u>				
Formwork to soffits of solid slabs shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described				
Formwork to soffits of slabs and beams shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
Carried to Collection			R	
Section No. 7			IX	
Bill No. 2				
Concrete, Formwork And Reinforcement				
7-8				

	Unit	Quantity	Rate	Amount
Formwork to sides of bases, pile caps, ground beams 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"  General Notes: Temporary Support Work and Back Propping Specifications and Requirements:  All temporary support work (formwork and backpropping, etc) is the responsibility of the Contractor's own				
appointed 'Temporary Works' registered structural engineer/approved competent person (TWE).  It is also the contractor's (TWE) responsibility to review the Principle Structural Engineers (PSE) construction layouts and develop the appropriate formwork support (back-propping, etc) execution plan.				
The formwork execution plan is to be developed in consultation with the (PSE) and final approval is required from the (PSE) prior to the execution of this plan.				
The contractor's (TWE) is also responsible to inspect and approve the erected formwork (back-propping, etc) prior to pouring concrete on site. He is also required to 'green tag' the approved formwork, indicating that it is safe to pour concrete. He is also required to 'fill in and sign off' the formwork in the on-site Health and Safety File indicating that he has inspected, approved and 'green tagged' the formwork and it is safe to pour the concrete. This 'sign-off' must occur each and every time the Contractor intends to pour any of the suspended concrete floor slabs.				
The Contractor's own appointed 'Temporary Works' structural engineer/approved competent person (TWE) must also carry his own professional indemnity (PI) insurance for 'Temporary Structural Works'. Proof of this insurance must be submitted to the Principal Agent / Project Manager for approval.				
As per Construction Regulations 2014: Temporary Formwork and Support work of OHS ACT 1993				
"A Contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use". The Contractor must submit this information inclusive of his (TWE) proof of (PI) to the Project Manager for approval.				
Carried to Collection Section No. 7			R	
Bill No. 2 Concrete, Formwork And Reinforcement 7-9				

	Unit	Quantity	Rate	Amount
"A Contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose".  A contractor shall ensure that:  "All formwork and support work structures are to be adequately designed, erected, supported, braced and maintained by a competent person so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand". This is the responsibility of the Contractor's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to submit the necessary documentation confirming the above requirements to the Principal Agent / Project Manager for approval.				
"All the designs of formwork and temporary support work structures are done with a close reference to the structural design drawings issued and where any uncertainty exists, the structural designer (PSE) should be consulted". The contractors (TWE) is required to submit their formwork execution plan the (PSE) for approval prior to pouring any concrete on site.				
"Detailed activity specific drawings pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee". The Project Manager must ensure that the Contractor has this information available on site at all times.				
"All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used". This is the responsibility of the Contractor's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to 'sign-off' accordingly.				
"All formwork and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site". This is the responsibility of the PBC's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to 'sign-off' accordingly.				
Carried to Collection Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement			R	
7-10				

		Unit	Quantity	Rate	Amount	
	"The Contractor must ensure that his Temporary Works Engineer (TWE) submits a temporary works drawing or any other relevant document including construction sequences and method statements" to the (PSE) for review, comment and approval.					
	As highlighted above, the principle building contractor (Contractor) has to develop his construction programme with due consideration for the above construction regulations and the PSE's final approval of the Contractor's temporary formwork and back-propping execution plan.					
	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					
	Finishing Finishing the surfaces of surface beds and slabs level and smooth to receive screed, grano or any other finish are deemed to be included in the rate for the surface bed or slab.					
	Mesh reinforcement					
	Mesh reinforcement is measured net, contractor to take condideration of lapping					
	REINFORCED CONCRETE CAST ON/IN FORMWORK					
	25MPa/19mm concrete					
1	Slabs and inverted beams	m³	5			
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	25MPa/19mm concrete					
2	Surface beds	m³	51			
3	Thickenings under surfacebeds	m³	13			
	TEST CUBES					
	<u>Test Cubes</u>					
4	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	36			
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a steel					
	trowel					
5	Surface beds, slabs, etc to falls	m²	203			
	Carried to Collection			R		
	Section No. 7			• •		
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	7-11					

Grooves, channels, mortices, sinkings, etc in concrete  6 30 x 30mm Chamfers m 103  ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111)  Rough formwork to sides  7 Inverted beams m² 28  8 Edges, risers, ends and reveals exceeding 300mm high or wide  ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 114)  Rough formwork to soffits  9 Slabs propped up exceeding 1.5m and not exceeding 3.5m high m² 3 16  REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)  Mild steel reinforcement to structural concrete work  10 Various diameter bars Tonnes 1.00  High tensile steel reinforcement to structural concrete work  11 Various diameter bars Tonnes 1.00  Fabric reinforcement  12 Type 245 fabric reinforcement in concrete surface beds etc m² 192  13 Type 617 fabric reinforcement in concrete walls m² 203  BUDGETARY ALLOWANCE RIb and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and blook system  Carried to Collection  R Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement  7-12			Unit	Quantity	Rate	Amount
concrete 6 30 x 30mm Chamfers ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111) Rough formwork to sides 7 Inverted beams ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111) Rough formwork to sides 8 Edges, risers, ends and reveals exceeding 300mm high or wide ROUGH formwork to soffits 9 Sidabs propped up exceeding 1.5m and not exceeding 3.5m high REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114) Mild steel reinforcement to structural concrete work Various diameter bars High tensile steel reinforcement to structural concrete work 11 Various diameter bars Fabric reinforcement 12 Type 245 fabric reinforcement in concrete walls etc 13 Type 617 fabric reinforcement in concrete walls BUDGETARY ALLOWANCE Rib and Block System 14 Allow the sum of R350,000.00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement						
Concrete   Concrete						
6 30 x 30mm Chamfers  ROUGH FORMWORK (DEGREE OF ACCURACY II) (CFAP WORK GROUP NO. 111)  Rough formwork to sides  Inverted beams  Edges, risers, ends and reveals exceeding 300mm high or wide  Rough formwork to soffits  Slabs propped up exceeding 1.5m and not exceeding 3.5 m high  REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)  Mild steel reinforcement to structural concrete work  Various diameter bars  High tensile steel reinforcement to structural concrete work  Various diameter bars  Fabric reinforcement  Type 245 fabric reinforcement in concrete surface beds etc  Type 617 fabric reinforcement in concrete walls  BUGGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection  Section No. 7  Bill No. 2 Concrete, Formwork And Reinforcement						
ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111) Rough formwork to sides Inverted beams  8 Edges, risers, ends and reveals exceeding 300mm high or wide Rough formwork to soffits 9 Slabs propped up exceeding 1.5m and not exceeding 3.5m high  REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114) Mild steel reinforcement to structural concrete work Various diameter bars High tensile steel reinforcement to structural concrete work Various diameter bars Tonnes 1.00  Fabric reinforcement Type 245 fabric reinforcement in concrete surface beds etc  17 Type 245 fabric reinforcement in concrete walls BUDGETARY ALLOWANCE Rib and Block System Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement	6		m	103		
CCPAP WORK GROUP NO. 1111   Rough formwork to sides	O		111	103		
Tour		(CPAP WORK GROUP NO. 111)				
Edges, risers, ends and reveals exceeding 300mm high or wide  Rough formwork to soffits  Slabs propped up exceeding 1.5m and not exceeding 3.5m high m² 16  REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)  Mild steel reinforcement to structural concrete work  Various diameter bars High tensile steel reinforcement to structural concrete work  11 Various diameter bars Tonnes 1.00  Fabric reinforcement  Type 245 fabric reinforcement in concrete surface beds etc m² 192  Type 617 fabric reinforcement in concrete walls m² 203  BUDGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement		Rough formwork to sides				
or wide  Rough formwork to soffits  Slabs propped up exceeding 1.5m and not exceeding 3.5m high m² 16  REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114) Mild steel reinforcement to structural concrete work  Various diameter bars Tonnes 1.00  High tensile steel reinforcement to structural concrete work  Various diameter bars Tonnes 1.00  Fabric reinforcement  Type 245 fabric reinforcement in concrete surface beds etc m² 192  Type 617 fabric reinforcement in concrete walls m² 203  BUGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement	7	Inverted beams	m²	28		
Slabs propped up exceeding 1.5m and not exceeding 3.5m high  REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)  Mild steel reinforcement to structural concrete work  10 Various diameter bars  High tensile steel reinforcement to structural concrete work  11 Various diameter bars  Tonnes  1.00  Fabric reinforcement  Type 245 fabric reinforcement in concrete surface beds etc  m²  192  13 Type 617 fabric reinforcement in concrete walls  BUDGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection  R  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement	8		m²	3		
3.5m high  REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)  Mild steel reinforcement to structural concrete work  Various diameter bars  High tensile steel reinforcement to structural concrete work  Various diameter bars  Fabric reinforcement  Type 245 fabric reinforcement in concrete surface beds etc  Type 617 fabric reinforcement in concrete walls  BUDGETARY ALLOWANCE Rib and Block System  Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement		Rough formwork to soffits				
GROUP NO. 114)  Mild steel reinforcement to structural concrete work  Various diameter bars  High tensile steel reinforcement to structural concrete work  Various diameter bars  Fabric reinforcement  Tonnes  Tonnes  1.00  Fabric reinforcement  Type 245 fabric reinforcement in concrete surface beds etc  BUDGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement	9		m²	16		
Tonnes 1.00  High tensile steel reinforcement to structural concrete work  11 Various diameter bars  Fabric reinforcement  12 Type 245 fabric reinforcement in concrete surface beds etc  Type 617 fabric reinforcement in concrete walls  BUDGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement						
High tensile steel reinforcement to structural concrete work  11 Various diameter bars  Fabric reinforcement  12 Type 245 fabric reinforcement in concrete surface beds etc  Type 617 fabric reinforcement in concrete walls  BUDGETARY ALLOWANCE Rib and Block System  14 Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement		Mild steel reinforcement to structural concrete work				
concrete work Various diameter bars Fabric reinforcement Type 245 fabric reinforcement in concrete surface beds etc Type 617 fabric reinforcement in concrete walls BUDGETARY ALLOWANCE Rib and Block System Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Carried to Collection Section No. 7 Bill No. 2 Concrete, Fornwork And Reinforcement	10	Various diameter bars	Tonnes	1.00		
Fabric reinforcement Type 245 fabric reinforcement in concrete surface beds etc  Type 617 fabric reinforcement in concrete walls  BUDGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Item  Carried to Collection Section No. 7  Bill No. 2 Concrete, Formwork And Reinforcement						
Type 245 fabric reinforcement in concrete surface beds etc	11	Various diameter bars	Tonnes	1.00		
etc m² 192 Type 617 fabric reinforcement in concrete walls m² 203  BUDGETARY ALLOWANCE Rib and Block System Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Item  Carried to Collection Section No. 7  Bill No. 2 Concrete, Formwork And Reinforcement		Fabric reinforcement				
BUDGETARY ALLOWANCE Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system  Item  Carried to Collection  Section No. 7  Bill No. 2  Concrete, Formwork And Reinforcement	12		m²	192		
Rib and Block System  Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system    Item	13	Type 617 fabric reinforcement in concrete walls	m²	203		
Allow the sum of R350,000,00 (Three Hundred and Fifty Thousand) For the design, supply and installation complete of the rib and block system    Item		BUDGETARY ALLOWANCE				
Thousand) For the design, supply and installation complete of the rib and block system    Item   R		Rib and Block System				
Carried to Collection Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement	14					
Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement			Item			
Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement						
Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement						
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Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement						
Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement						
Bill No. 2 Concrete, Formwork And Reinforcement		Carried to Collection			R	
Concrete, Formwork And Reinforcement						
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BILL NO. 2  CONCRETE, FORMWORK AND REINFORCEMENT  COLLECTION	Page No	
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		_
Carried To Section Summary Section No. 7	R	
Bill No. 2 Concrete, Formwork And Reinforcement		
7-13		

	Unit	Quantity	Rate	Amount	
SECTION NO. 7  ATTENUATION TANK  BILL NO. 3  MASONRY  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender	Unit	Quantity	Rate	Amount	
will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.					
SUPPLEMENTARY PREAMBLES					
Working at Heights					
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.					
			_		
Carried to Collection Section No. 7			R		
Bill No. 3					
Masonry					
7-14					

		Unit	Quantity	Rate	Amount	
	Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
	Sizes in descriptions					
	Where sizes in descriptions are given in brick units, one brick shall represent the length and half brick the width of a brick					
	Bagged and sealed walls					
	Walls described as 'bagged and sealed' shall be deemed to include having the outer face of the inner most skin bagged with 1:6 cement and sand mixture and sealed with two coats "ABE" or other approved bitumen emulsion waterproofing coating					
	Face bricks					
	Bricks shall be ordered timeously to obtain uniformity in size and colour					
	<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					
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc					
1	Piers	m³	1			
2	One brick walls	m²	31			
3	One and half brick walls	m²	11			
	Carried to Collection			R		
	Section No. 7					
	Bill No. 3 Masonry					
	7-15					

		Unit	Quantity	Rate	Amount
4	300mm Hollow walls of two half brick skins, including type R8 wall ties every third course	m²	179		
5	Brickwork Sundries Closing 70mm cavities of hollow walls vertically with 15MPa/19mm concrete	m³	13		
	2,5mm Brickwork reinforcement				
6	75mm Wide reinforcement built in horizontally	m	139		
7	150mm Wide reinforcement built in horizontally	m	2 731		
	Prestressed fabricated concrete lintels including necessary temporary supports				
8	110 x 75mm Lintels in lengths not exceeding 3m	m	22		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 3 Masonry				
	7-16				

BILL NO. 3 MASONRY COLLECTION	Brought Forward from Page	7-14 7-15 7-16	
Carr	ried To Section Summary	R	
Section No. 7 Bill No. 3	o oosiisii odiiiiidiy		
Masonry	7-17		

	Unit	Quantity	Rate	Amount	
SECTION NO. 7 ATTENUATION TANK BILL NO. 4 METALWORK  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	Unit	Quantity	Rate	Amount	
Carried to Collection Section No. 7 Bill No. 4 Metalwork 7-18			R		

	Unit	Quantity	Rate	Amount	
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
Descriptions of bolts, anchors, etc.					
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					
Rates shall include for the following:					
Suitably protecting all exposed aluminium and glass surfaces with an approved protection tape and plastic sheeting. Such protection is to be removed at completion of the contract and the exposed surfaces cleaned down and left perfect. Under no circumstances will any damage whatsoever to the finished product be accepted.					
Building in and fixing into preformed openings. Window opening sizes to be verified on site before windows can be manufactured.					
Complete ironmongery to all aluminium doors and windows					
Complete glazing as described with and including matching aluminium glazing beads and gaskets and glazed in accordance with the manufacturer's written instructions.					
0			_		
Carried to Collection Section No. 7			R		
Bill No. 4					
Metalwork					
7-19					

	Unit	Quantity	Rate	Amount
All opening and fixed lights, coupling mullions and transoms, fittings, ironmongery, etc. As required.				
Powdercoated aluminium windows, doors, etc.:				
Bidders are to note that prices for aluminium doors and windows are to include for all necessary ironmongery for the complete installation as required. No further claims in this regard will be entertained.				
Bidders are advised to refer to the architects window and door schedules, as these will take precedence and rates will be deemed to be based in the schedules should there be any discrepency				
Items shall be manufactured by an approved specialist who shall provide a sample upon request, for approval by the Principal Agent, at no additional cost to the contract.				
Powdercoating to doors, windows, gates, etc. shall comply with minimum class 2, manufactured and installed in accordance with good building practice and in terms of the latest code of practice with revisions as recommended by the SANS and AAAMSA.				
All powdercoating shall be to SANS 1796:2013 (Class 2) – "Interpon D2525 T" or other approved, colour Matt Bronze 543 (Code QX201P), and shall be supplied with a 25 year project warrantee.				
Screws and bolts shall be of corresponding metal and colour and heads of screws shall be countersunk.  Selftapping screws shall, unless otherwise described, be used for screwing items to adjoining metalwork.  Stainless steel screws shall be used for fixing aluminium. Items fixed to adjoining metalwork with rivets, selftapping screws, set screws, machine screws, etc. shall include for all necessary drilling.				
Welded joints and intersections:				
Prices of continuous hollow section and solid section shall include for welded joints in the length and prices of intersections shall include for all cutting, mitering, scribing, shaping, welding, bends, knees, ramps, etc.				
Prices of balustrades, burglar guards and the like shall include for framed and welded joints and intersections.				
Hot dipped galvanising:				
The mass of hot dip galvanised steelwork has been calculated on the mass before galvanising and no allowance has been made for the additional mass of galvanising for which allowance must be made in pricing.				
Carried to Collection			R	
Section No. 7				
Bill No. 4				
Metalwork				
7-20				

		Unit	Quantity	Rate	Amount	
	Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.  Anodising:  All anodising shall be executed in strict accordance with SANS 999. Grade AA25 (Average coating thickness 25 micron) shall be used. Colour to be agreed with Architect.  Screws and bolts:  Screws and bolts shall be of corresponding metal and colour and heads of screws shall be countersunk.  Selftapping screws shall, unless otherwise described, be used for screwing items to adjoining metalwork.  Stainless steel screws shall be used for fixing aluminium. Items fixed to adjoining metalwork with rivets, selftapping screws, set screws, machine screws, etc., shall include for all necessary drilling.  Where bolting is specified, projecting shank ends of bolts shall be cut flush and left smooth.  Drawings:  Bidders are to note that where descriptions include reference to drawings, notwithstanding anything contained in the descriptions, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No additional time and/or monetary claims resulting from non-adherence to the above will be entertained.  GALVANISED MILD STEEL					
1	Step iron, etc 300mm Long Step iron @ 300 Centres	No	40			
	Carried to Collection Section No. 7 Bill No. 4 Metalwork 7-21			R		

BILL NO. 4  METALWORK  COLLECTION		Page No	
	Brought Forward from Page	7-18 7-19 7-20 7-21	
Section No. 7 Bill No. 4 Metalwork	Carried To Section Summary	R	
	7-22		ı

	Unit	Quantity	Rate	Amount	
SECTION NO. 7 ATTENUATION TANK BILL NO. 5 PLASTERING  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete	Unit	Quantity	Rate	Amount	
conformance in all respects to the requirements of SANS 10400.					
SUPPLEMENTARY PREAMBLES					
Working at Heights					
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.					
					_
Carried to Collection			R		_
Section No. 7 Bill No. 5					
Plastering					
7-23					

	Unit	Quantity	Rate	Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
<u>Preparation</u>				
For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic.				
Mix				
Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic.				
<u>Panels</u>				
Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints				
Carried to Collection			R	
Section No. 7				
Bill No. 5 Plastering				
7-24				

		Unit	Quantity	Rate	Amount
	<u>Laying</u>				
	Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels				
	Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
	After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated				
	Curing, seasoning and protection				
	Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.				
	Colour				
	Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.				
	SCREEDS				
	Screeds steel trowelled, on concrete				
1	Average 40mm thick on floors with upper surface to falls	m²	52		
2	Average 50mm thick on floors with upper surface to falls	m²	47		
	<u> </u>				
	Carried to Collection			R	
	Section No. 7				
	Bill No. 5				
	Plastering				
	7-25				

BILL NO. 5 PLASTERING COLLECTION	Brought Forward from Page	7-23 7-24 7-25	
Section No. 7 Bill No. 5 Plastering	Carried To Section Summary 7-26	R	_

	Unit	Quantity	Rate	Amount
SECTION NO. 7				
ATTENUATION TANK				
BILL NO. 6				
PLUMBING AND DRAINAGE				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Section No. 7 Bill No. 6			R	
Plumbing And Drainage				
7-27				

		Unit	Quantity	Rate	Amount
	Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out	Unit	Quantity	Rate	Amount
	LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
	<u>Drawings:</u>				
	Bidders are to note that where descriptions include reference to drawings, notwithstanding anything contained in the descriptions, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No additional time and/or monetary claims resulting from non-adherence to the above will be entertained.				
	STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)				
	uPVC Class 16 pipes				
1	200mm pipes laid in and including trenches exceeding 2m not exceeding 3m deep	m	20		
	Extra over uPVC Class 16 pipes for fittings				
2	200mm Junction. (Labour Intensive)	No	4		
	Class 100D concrete pipes				
3	375mm Pipes laid in and including trenches exceeding 2m deep and not exceeding 3m deep. (Labour Intensive)	m	20		
	Cast iron cover and frame				
4	"Saint Gobain" or other approved 600 x 600mm Type 8B double seal manhole cover and frame	No	3		
	Carried to Collection			R	
	Section No. 7			1	
	Bill No. 6				
	Plumbing And Drainage				
	7-28				

		Unit	Quantity	Rate	Amount	
5	Galvanised Mild Steel gratings, covers, etc  1000 x 500mm "Mentis RS40" or other approved trench cover and frame with and including 30 x 4.5 Bearers, 40 x 40 x 4mm thick angle and 25 x 150mm long x 6mm thick fish-tailed lugs @ 500 centres	No	2			
6	Galvainsed Mild Steel Cage  "Mentis Rectagrid RS40" or other approved 600 x 600 x 600mm high cage with and including 30 x 3mm thick					
	bearers, complete	No	1			
	Carried to Collection Section No. 7 Bill No. 6			R		
	Plumbing And Drainage 7-29					

BILL NO. 6 PLUMBING AND DRAINA COLLECTION	<u>AGE</u>	Page No	
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			Amount	
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	ATTENUATION TANK			
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2	CONCRETE, FORMWORK AND REINFORCEMENT	7-13		
3	MASONRY	7-17		
4	METALWORK	7-22		
5	PLASTERING	7-26		
6	PLUMBING AND DRAINAGE	7-30		
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	SECTION SUMMARY			
	7.04			
	7-31			

## SECTION NO. 8 WATER SUPPLIES

	Unit	Quantity	Rate	Amount
SECTION NO. 8				
WATER SUPPLIES				
BILL NO. 1				
PLUMBING AND DRAINAGE				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Section No. 8			K	
Bill No. 1				
Plumbing And Drainage				
8-2				

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Wire gratings				
Descriptions of gutter outlets shall be deemed to include wire balloon gratings				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600				
uPVC pipes and fittings				
Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings				
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings				
"Polycop" polypropylene pipes				
Pipes shall be firmly fixed to walls 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				
Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" compression fittings				
Carried to Collection			R	
Section No. 8			ĸ	
Bill No. 1				
Plumbing And Drainage				
8-3				

		Unit	Quantity	Rate	Amount	
	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 antisyphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016					
	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					
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, casting in, building in or suspending not exceeding 1m below suspension level					
	Disinfection of water pipework					
	Water pipework is to be disinfected at completion in accordance with SANS (provision for disinfection elsewhere)					
	General					
	Rates for installation of sanware and all drainage and supply piping of all types will be deemed to include for fair cutting around pipes and making good to floor and wall finishes.					
	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)					
	WATER SUPPLIES					
	Taps, Valves, etc - Polished Brass					
1	75mm Fullway gate valve (Labour Intensive)	No	1			
	HDPE PE 100 PN 16 pipes to SANS 1315					
2	75mm Pipes laid in and including trenches not exceeding 1m deep. (Labour Intensive)	m	360			
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		Unit	Quantity	Rate	Amount	
3	75mm Isolation valves (Labour Intensive)	No	5			
4	Isolation valve chamber size approximately 500mm long x 500mm wide x 500mm high including mesh reinforced 100mm thick concrete base and 115mm thick brick walls, 450 x 450mm heavy duty cast iron cover and frame with and including all necessary excavations,	No	5			
	Extra over HDPE PE 100 PN 16 pipes for brass compression fittings					
5	75mm Reducing coupling (Labour Intensive)	No	20			
6	75mm Tee (Labour Intensive)	No	10			
7	75mm Reducing Tee (Labour Intensive)	No	6			
8	75mm Elbow (Labour Intensive)	No	13			
	Sundries					
9	225 x 225mm Cast iron stopcock box set on and including 75mm thick 30 MPa concrete base, excavation, etc. complete (Labour Intensive)	No	1			
	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					
10	300 x 600mm Pipe marker consisting of 300mm uPVC pipe embedded 550mm deep into ground, and 150mm thick 30MPa concrete plug with 50 x 75 x 6mm recessed letter "V" to top of concrete and painted black (Labour Intensive)	No	15			
11	Allow for testing the complete water supply installation by visual and Air Pressure test to the satisfaction of the Engineer. (All defective work to be replaced at the Contractor's expense)	ltem				
	BUDGETARY ALLOWANCES					
	Municipal Connection					
12	Allow the provisional Sum of R 110 000.00 (One Hundred and Ten Thousand Rand Only) for the Connection to existing municipal water supply	Prov Sum				
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## SECTION NO. 9 STORMWATER DRAINAGE

	Unit	Quantity	Rate	Amount
SECTION NO. 9 STORMWATER DRAINAGE BILL NO. 1 PLUMBING AND DRAINAGE  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as	Unit	Quantity	Rate	Amount
such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Carried to Collection Section No. 9 Bill No. 1 Plumbing And Drainage			R	
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	Unit	Quantity	Rate	Amount
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Wire gratings				
Descriptions of gutter outlets shall be deemed to include wire balloon gratings				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600				
uPVC pipes and fittings				
Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings				
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings				
"Polycop" polypropylene pipes				
Pipes shall be firmly fixed to walls 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				
Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" 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 antisyphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016				
Carried to Collection Section No. 9 Bill No. 1			R	
Plumbing And Drainage				
9-3				

		Unit	Quantity	Rate	Amount
	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				
	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 SANS (provision for disinfection elsewhere)				
	<u>General</u>				
	Rates for installation of sanware and all drainage and supply piping of all types will be deemed to include for fair cutting around pipes and making good to floor and wall finishes.				
	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)				
	STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)				
	Class 100D concrete pipes				
1	300mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep. (Labour Intensive)	m	82		
2	300mm Pipes laid in and including trenches exceeding 2m deep and not exceeding 3m deep. (Labour Intensive)	m	90		
3	375mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep. (Labour Intensive)	m	90		
4	375mm Pipes laid in and including trenches exceeding 2m deep and not exceeding 3m deep. (Labour Intensive)	m	42		
5	450mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep. (Labour Intensive)	m	41		
6	450mm Pipes laid in and including trenches exceeding 2m deep and not exceeding 3m deep. (Labour Intensive)	m	29		
	Carried to Collection			R	
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	Plumbing And Drainage				
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		Unit	Quantity	Rate	Amount	
	Sundries					
7	Extra only over backfill for selected earth filling from the excavations in back filling with an approved imported fine granular filling to 300mm below top of trench. (Labour Intensive)	m³	866			
	Testing					
8	Allow for testing all the stormwater drains as directed by the Engineer and re-testing after replacing any defective work to his satisfaction. The Contractor is to provide all testing apparatus and labour and is to follow the instruction of the Engineer	Item				
	Fixing of pipes					
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, casting in, building in or suspending not exceeding 1m below suspension level					
	The following in catchpits, manholes, etc of 250mm thick 30 MPa/ 19mm concrete base, one brick walls in NFX hardburnt clay bricks rendered internally, and including 3:1 cement benching, excavations, part return and compact and carting away, etc					
9	Catchpit overall size 1260 x 1260mm and exceeding 1000mm and not exceeding 1500mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured) (Labour Intensive)	No	4			
10	Catchpit overall size 1260 x 1260mm and exceeding 1500mm and not exceeding 2000mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured) (Labour Intensive)	No	6			
11	Inspection chamber overall size 1749 x 1749mm wide and exceeding 2000mm and not exceeding 2500mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured) (Labour Intensive)	No	5			
12	Inspection chamber overall size 1749 x 1749mm wide and exceeding 2500mm and not exceeding 3000mm deep internally, with rebated opening for cast iron cover and frame (elsewhere measured) (Labour Intensive)	No	5			
	Gratings, covers, etc					
13	500 x 800mm Fibre reinforced polymer grating and frame	No	4			
14	Type 4A Fiberite composite circular manhole cover and frame	No	6			
	Carried to Collection			R		_
	Section No. 9 Bill No. 1					_
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	Unit	Quantity	Rate	Amount
SECTION NO. 9				
STORMWATER DRAINAGE				
BILL NO. 2				
EXTERNAL WORKS				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
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	Unit	Quantity	Rate	Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to		Quantity	INGIG	Amount
by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Wire gratings				
Descriptions of gutter outlets shall be deemed to include wire balloon gratings				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600				
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				
"Polycop" polypropylene pipes				
Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" compression fittings				
Pipes shall be firmly fixed to walls 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				
Carried to Collection Section No. 9 Bill No. 2 External Works			R	
9-8				
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	Unit	Quantity	Rate	Amount	
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 antisyphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016					
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					
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, casting in, building in or suspending not exceeding 1m below suspension level					
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 SANS (provision for disinfection elsewhere)					
<u>General</u>					
Rates for installation of sanware and all drainage and supply piping of all types will be deemed to include for fair cutting around pipes and making good to floor and wall finishes.					
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)					
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Carried to Collection Section No. 9 Bill No. 2			R		
External Works					
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		Unit	Quantity	Rate	Amount	
	CONCRETE STORMWATER CHANNELS ETC					
	Concrete stormwater channels of 25Mpa concrete					
1	1000 x 150mm Channel with 'V' channel formed therein and finished smooth on exposed surfaces including necessary excavation and formwork, 250 micron dpc, mesh 617 etc with expansion joints every 18m, cast in alternative sections of 1.5m	m	350			
2	Extra over for angles, intersections, ends, etc	No	82			
	SEALING STRIPS, JOINT SEALANTS, TEC					
	Two part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc. (Provisional)					
3	8 x 13mm In expansion joints between brickwork and concrete including raking out expansion joint filler as necessary.	m	573			
	THE FOLLOWING IN HEADWALLS					
	Reno mattress or other approved gabion					
4	Double twisted hexagonal woven steel wire mesh size approximately 2250mm long x 1500mm wide x 300mm thick, to be assembled and filled with 75mm stone to form flexible, permeable and monolithic structure with Geotextile fabric mesh under mattress and raised sides of 300mm all round - refer Engineers drawing No. 3039D-PH1-D-382-Rev A	No	1			
	Brick and concrete headwall					
5	Stormwater tapered headwall 2250mm wide extreme x 2030mm long tapering to 850mm at pipe connection x 900mm deep overall formed of 150mm thick concrete base, one brick walls tapering to the front, including faced brick walls, reinforced mat of standard rebar, all excavation, backfilling etc including 5No. Splitter blocks - see drawing No. 3039D-PH1-D-382-Rev A	N.				
	see drawing No. 3033D-1 111-D-302-Nev A	No	1			
	Carried to Collection Section No. 9			R		
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	STORMWATER DRAINAGE			
	SECTION SUMMARY			
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## SECTION NO.10 RAINWATER HARVESTING TANKS

	Unit	Quantity	Rate	Amount
SECTION NO.10				
RAINWATER HARVESTING TANKS				
BILL NO. 1				
PLUMBING AND DRAINAGE				
The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400				
SUPPLEMENTARY PREAMBLES				
Working at Heights				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Section No. 10				
Bill No. 1				
Plumbing And Drainage				
10-2				

	Unit	Quantity	Rate	Amount
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on				
site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.				
Wire gratings				
Descriptions of gutter outlets shall be deemed to include wire balloon gratings				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600				
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				
"Polycop" polypropylene pipes				
Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" compression fittings				
Pipes shall be firmly fixed to walls 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				
Carried to Collection Section No. 10 Bill No. 1			R	
Plumbing And Drainage				
10-3				

	Unit	Quantity	Rate	Amount
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 antisyphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016				
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				
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, casting in, building in or suspending not exceeding 1m below suspension level				
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 SANS (provision for disinfection elsewhere)				
General				
Rates for installation of sanware and all drainage and supply piping of all types will be deemed to include for fair cutting around pipes and making good to floor and wall finishes.				
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)				
Carried to Collection			R	
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Bill No. 1				
Plumbing And Drainage				
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BILL NO. 1 PLUMBING AND DRAIN. COLLECTION	<u>AGE</u>	Page No	
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Bill No. 1 Plumbing And Drainage	10-5		

		Unit	Quantity	Rate	Amount	
1	SECTION NO.10 RAINWATER HARVESTING TANKS BILL NO. 2 EXTERNAL WORKS  THE FOLLOWING IN RAINWATER HARVESTING TANKS Polyethlene water storage tanks 5000 Litres Jo-jo rainwater tank or similar approved, with	Unit	Quantity	Rate	Amount	
•	75mm Diameter opening for downpipe from gutter including 50mm Diameter overflow opening with 4mm Diameter galvanised wire looped through top of tank isolated with 15mm diameter hose to top of tank and anchored to top of slab with 'Hilti' hooks drilled into slab at all four corners and 15mm hose bib tap					
	The Model Preambles for Trades 2008 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicablenone (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications					
	Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2008	No	10			
	Tank stand					
	Excavation in earth not exceeding 2m deep					
2	Reduced levels under floors	m³	12			
3	Trenches	m³	37			
	Risk of collapse of excavations					
4	Risk of collapse of sides of trench and hole excavations not exceeding 1,5m deep	m²	124			
	Extra over all excavations for carting away					
5	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk) off site to be located by the contractor	m³	23			
	Carried to Collection			R		
	Section No. 10					
	Bill No. 2					
	External Works					
	10-6					

		Unit	Quantity	Rate	Amount	
	Keeping excavations free of water					
6	Keeping excavations free of all water other than subterranean water	Item				
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 95% Mod AASHTO density					
7	Backfilling to trenches, holes, etc.,	m³	12			
	Imported filling of G7 material, filled and compacted to 93% Mod AASHTO density, in layers not exceeding 150mm thick, all in accordance with the relevant sections of SANS					
8	Under floors, steps, pavings, etc.	m³	17			
	Compaction of ground surfaces					
9	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, adding G7 material where necessary and compacting to 93% Mod AASHTO density	m²	79			
	SOIL POISONING					
	Approved brand of anti-termite soil poison applied					
	by a Registered Pest Control company and guaranteed against termite infestation for Five (5) years in accordance with SANS 10400					
10	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	49			
11	To bottoms and sides of trenches etc	m²	191			
12	Unreinforced concrete Class 25/19 in blinding	m³	3			
13	Reinforced concrete Class 25/19 in surface beds	m³	8			
14	Reinforced concrete Class 25/19 in strip footings	m³	13			
15	Finishing top surfaces of concrete smooth with a power float to surface beds, slabs, etc to falls	m²	49			
16	Steel reinforcement of various diameters to concrete foundations	Tonnes	6.00			
17	Type 395 fabric reinforcement	m²	15			
18	One Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar	m²	88			
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	Carried to Collection			Б.		
	Section No. 10			R		
	Bill No. 2					
	External Works					
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		Unit	Quantity	Rate	Amount
19	20mm COBRA 541 or equally aproved tank locking tap fitted to a 22mm extension pipe with barrel nipple & galvanised socket	No	10		
	Carried to Collection Section No. 10 Bill No. 2 External Works 10-8			R	

BILL NO. 2 EXTERNAL WORKS COLLECTION	Brought Forward from Page	Page No 10-6 10-7 10-8	
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			Amount	
	SECTION NO.10			
	RAINWATER HARVESTING TANKS			
	SECTION SUMMARY			
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	Carried to Final Summary Section No. 10	R		
	SECTION SUMMARY			
	10-10			

## SECTION NO.11 RETAINING WALLS

SECTION NO.11 RETAINING WALLS BILL NO.1 EARTHWORKS  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural(iv) Engineering specifications, and to all general and project-specific specifications, and to all general and project-specific specifications, as contained in the complete bid specification, as contained in the complete bid set of the complete bid bid set of the complete bid bid set of the complete bid bid set of the bi		Unit	Quantity	Rate	Amount
RETAINING WALLS BILL NO.1 EARTHWORKS The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural(CVII Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence. Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES Working at Heights Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.  Carried to Collection  Section No. 11 Bill No. 1 Earthworks					
RETAINING WALLS BILL NO.1 EARTHWORKS The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural(CVII Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence. Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES Working at Heights Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.  Carried to Collection  Section No. 11 Bill No. 1 Earthworks					
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EARTHWORKS  The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available) on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents, Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.  Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heightts  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.	RETAINING WALLS				
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Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence. Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES Working at Heights Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.  Carried to Collection  R  Section No. 11 Bill No. 1 Earthworks	<u>EARTHWORKS</u>				
edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.  SUPPLEMENTARY PREAMBLES  Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.  Carried to Collection  Section No. 11  Bill No. 1  Earthworks	Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take				
Working at Heights  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.  Carried to Collection  Section No. 11  Bill No. 1  Earthworks	edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of				
Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.  Carried to Collection  Section No. 11  Bill No. 1  Earthworks	SUPPLEMENTARY PREAMBLES				
require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.  Carried to Collection  Section No. 11  Bill No. 1  Earthworks	Working at Heights				
Section No. 11 Bill No. 1 Earthworks	require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of				
Section No. 11 Bill No. 1 Earthworks					
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Bill No. 1 Earthworks				R	
Earthworks					
11-2					
	11-2				

	Unit	Quantity	Rate	Amount	
Labour Intensive  Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.					
Nature of ground					
The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'					
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.					
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, and dumping at registered dumpsites.					
Bulking					
No allowance has been made for bulking					
<u>Filling</u>					
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					
<u>Testing</u>					
Prices for filling are to include for all necessary density tests in accordance with the relevent section of SANS					
Carried to Collection Section No. 11 Bill No. 1 Earthworks			R		
Earthworks 11-3					
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		Unit	Quantity	Rate	Amount
	Proximity to existing structures				
	Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.				
	<u>Drawings:</u>				
	Tenderers are to note that where descriptions include references to drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from failure to comply with any of the above will be entertained.				
	Cost of tests				
	The costs of making, storing and testing of concrete test cubes as required under the relevent part of SANS, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately).				
	Concrete				
	Rates for concrete shall be deemed to include for all necessary transportation, hoisting, etc. to render a perfect, sound and stable installation all to the satisfaction of the Structural Engineer.				
	Bidders are to note that delay claims related to the supply of concrete decking, reinforcment, etc. will not be entertained and are thus urged to take congnisance of quantities required and secure supply accordingly				
	THE FOLLOWING IN INTERLOCKING BLOCK RETAINING STRUCTURES DESIGNED, SUPPLIED AND INSTALLED COMPLETE BY THE MANUFACTURE OR APPROVED AGENT				
	Earthworks (CPAP Work Group 104)				
	Excavations				
1	Excavate in soft excavations and compacted fill material for surface trenches not exceeding 2m deep and deposit on the site	m³	13		
2	Backfilling from excavations to trenches and holes compacted to 98% MOD AASHTO density.	m³	4		
	Carried to Collection Section No. 11 Bill No. 1 Earthworks			R	
	11-4				

		Unit	Quantity	Rate	Amount	
3	Extra over all execavations for carting away  Surplus material form excavations and/or stock piles on site, to a dumping site to be located by the contractor	m³	9			
	G7 earth filling supplied by the contractor, compacted in layers not exceeding 150mm thick to 93% Mod AASHTO density, all in accordance with SANS 10400					
4	Behind retaining wall	m³	75			
	"Wickdrain" by Kaytech					
5	Geotech waterproofing set vertically behind retaining wall	m²	150			
	Risk of collapse of excavations					
6	Sides of trench and hole excavations not exceeding 1.5m deep	m²	53			
	Concrete (CPAP Work Group No. 110)					
	<u>Soilcrete</u>					
7	Filling to retaining wall	m³	60			
	Unreinforced concrete 25MPa/19mm cast against excavated surfaces:					
8	Strip footings	m³	11			
	"Loffelstein" Precast concrete interlocking planter blocks finished smooth on exposed surfaces. (Work Group No. 112)					
9	Retaining structure with stepped face and curves as required to suit slopes using type L300 interlocking blocks laid with horizontal bed joints including backfilling with selected earth obtained from the excavations and filling the blocks with soilcrete	m²	150			
10	Retaining structure with stepped face and curves as required to suit slopes using type L500 interlocking blocks laid with horizontal bed joints including backfilling with selected earth obtained from the excavations and filling the blocks with soilcrete	m²	45			
		1111	45			
11	Slotted PVC-U flexible drainage pipes  100mm Pipes laid behind loffelstein	m	75			
11	Tourim Pipes laid benind loneistein	m	75			
	Carried to Collection			R		
	Section No. 11			18		
	Bill No. 1					
	Earthworks					
	11-5				ıl l	

		Unit	Quantity	Rate	Amount	
12	50mm Diameter weep pipe approximately 1200mm long through loffelstein wall, including 110mm Diameter junction, 110mm long eccentric reducer spigot and socket, riversand blinding and wrapped in U14 bidim (A2) fabric or other approved high strength needle punched and polyester non-woven geotextile bidim	No	30			
	Extra over slotted PVC-U flexible drainage pipes for fittings					
13	100mm Bend	No	30			
14	100mm End cap	No	2			
	Carried to Callection					
	Carried to Collection			R		
	Section No. 11 Bill No. 1 Earthworks					
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BILL NO. 1 EARTHWORKS COLLECTION		Page No	
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	SECTION NO.11 RETAINING WALLS		
	SECTION SUMMARY		
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	Carried to Final Summary	R	
	Section No. 11 SECTION SUMMARY		
	11-8		

# SECTION NO.12 PROVISIONAL SUMS

# SECTION NO.12 PROVISIONAL SUMS

The bidder is referred to the relevant clauses in the KZN Department of Health Standard Preambles to all Trades Rev 3 - January 2009 (available on request), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.

Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.

#### **SUPPLEMENTARY PREAMBLES**

#### Working at Heights:

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

## **Labour Intensive**

Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Expanded Public Works Programme.

#### General

Work for which budgetary allowances are provided will be measured and valued in accordance with clause 32 of the Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss or profit on the said allowances

Carried To Section Summary	R	

Section No. 12 Bill No. 1 Provisional Sums

450 000 00

170 000 00

200 000 00

Prime cost amounts and provisional sums are net. Prime cost amounts include for delivery to site of all articles concerned. Provisional sums are for material and equipment supplied and installed complete by firms of specialists **Profit** Where stated, the contractor may allow for profit if required General attendance on nominated/selected subcontractors The item 'Attendance' which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors, the following: 1 The services as set out in clause B9.1 of the Preliminaries 2 Making good in all trades and cleaning down and removal of rubbish on completion

# Special attendance on nominated/selected subcontractors

Where stated special attendance will be described in detail in the Schedule for Variables in the Preliminaries for the services as set out in clause B9.2

#### **NEW BOREHOLE**

2

3

5

6

Profit

Profit

Attendance

Provide the sum of R 450 000.00 (Four Hundred and Fifty Thousand Rand) for Design, Supply and Installation for a new borehole complete Prov Sum

**FABRIC COVERED CARPORTS** 

Provide the sum of R 170 000 (One Hundred and Seventy Thousand Rand) for connection fees for fabric covered carports.

**LANDSCAPING** 

Attendance

Provide the sum of R 200 000.00 (Two Hundred Thousand Rand) for landscaping.

Attendance

Profit

Section No. 12 Bill No. 1

**Provisional Sums** 

Sum

Carried To Section Summary

R

Item

Item

Prov Sum

Item

Item

Prov

Item

Item

	ELEVATED WATER STORAGE TANK			
10	Provide the sum of R 1 000 000.00 (One Million Rand) for connection fees for elevated water storage tank.	Prov Sum	1 000 000	00
11	Profit	Item		
12	Attendance	Item		
	Carried To Section Summary Section No. 12	R		
	Bill No. 1			
	Provisional Sums 12-4			

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EXTERNAL WORKS NYAVINI CLINIC

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1	SITEWORKS (PROVISIONAL)	1-7	
2	BULK EARTHWORKS (PROVISIONAL)	2-7	
3	ROADWORKS	3-9	
4	FENCING AND GATES	4-6	
5	SOIL DRAINAGE	5-7	
6	SEPTIC TANKS AND SOAK AWAYS	6-21	
7	ATTENUATION TANK	7-31	
8	WATER SUPPLIES	8-7	
9	STORMWATER DRAINAGE	9-12	
10	RAINWATER HARVESTING TANKS	10-10	
11	RETAINING WALLS	11-8	
12	PROVISIONAL SUMS	12-5	
		arried to FS1 R	
	SUMMARY		

# NYAVINI CLINIC: CONSTRUCTION OF A NEW OUTLIER CLINIC AND STAFF RESIDENCES

## **FINAL SUMMARY PAGE**

		Page	Amount	
1	PRELIMINARIES	23		
2	BUILDING WORKS	96		
3	EXTERNAL WORKS	12-6		
4	ELECTRICAL INSTALLATION including Main Contractors profit and attendance (See separate document) (Value Added Tax excluded)			
5	MECHANICAL INSTALLATION including Main Contractors profit and attendance (See separate document) (Value Added Tax excluded)			
	Sub Total (A)			
	ADD: 0.5% Sub Total (A) for Contractor Skills Development Goal (CSDG)			
	Allow the sum of R4 800 000.00 (Four Million, Eight Hundred Thousand Rand) for escalation to be adjusted in accordance with the contract		4 800 000.00	
	Sub Total before VAT			
	ADD VAT @ 15%			
	Carried to Form of Offer and Acceptance	R		
	FINAL SUMMARY CARRIED TO FORM OF OFFER AND ACCEPTANCE			
	ACCE TANCE			