

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.

Carried to Collection

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Bill No. 1
 Earthworks (provisional)

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.</p> <p><u>Bulking</u></p> <p>No allowance has been made for bulking</p> <p><u>Filling</u></p> <p>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</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with the relevent section of SANS</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 Earthworks (provisional)</p>			R	

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BILL NO. 1
EARTHWORKS (PROVISIONAL)
COLLECTION

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Unit Quantity Rate Amount

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT

(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)

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SUPPLEMENTARY PREAMBLES

Working at Heights

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Carried to Collection

R

Bill No. 2
 Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Concrete</u></p> <p>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.</p> <p>Bidders are to note that delay claims related to the supply of concrete decking, reinforcement, etc. will not be entertained and are thus urged to take cognisance of quantities required and secure supply accordingly</p> <p><u>Cost of tests</u></p> <p>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).</p> <p><u>Formwork</u></p> <p>Formwork to soffits of solid slabs shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>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</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 2 Concrete, Formwork And Reinforcement</p>			R	

	Unit	Quantity	Rate	Amount
<p>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"</p> <p><u>General Notes : Temporary Support Work and Back Propping Specifications and Requirements:</u></p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><u>As per Construction Regulations 2014: Temporary Formwork and Support work of OHS ACT 1993</u></p> <p>"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.</p> <p>"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".</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 2 Concrete, Formwork And Reinforcement</p>			R	

	Unit	Quantity	Rate	Amount
<p>A contractor shall ensure that :</p> <p>"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.</p> <p>"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.</p> <p>"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.</p> <p>"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.</p> <p>"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.</p> <p>"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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 2 Concrete, Formwork And Reinforcement</p>			R	

	Unit	Quantity	Rate	Amount
<p>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.</p> <p>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</p> <p><u>Finishing</u></p> <p>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.</p> <p><u>Mesh reinforcement</u></p> <p>Mesh reinforcement is measured net, contractor to take consideration of lapping</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)</u></p> <p><u>15MPa/20mm concrete in:</u></p>				
1	m ³	168		
<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES IN FOUNDATIONS (PROVISIONAL)</u></p> <p><u>25MPa/20mm concrete</u></p>				
2	m ³	277		
3	m ³	2		
4	m ³	296		
<p><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></p> <p><u>25MPa/20mm concrete</u></p>				
5	m ³	50		
<p><u>TEST CUBES</u></p> <p>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 independant laboratory as measured below.</p>				
6	No	267		
Carried to Collection			R	
<p>Bill No. 2 Concrete, Formwork And Reinforcement</p>				

	Unit	Quantity	Rate	Amount
<u>CONCRETE SUNDRIES</u>				
<u>Finishing top surfaces of concrete smooth with a wood float</u>				
7	m ²	208		
<u>Finishing top surfaces of concrete smooth with a power float</u>				
8	m ²	2 274		
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111)</u>				
<u>Smooth formwork to soffits</u>				
9	m ²	167		
<u>Smooth formwork to sides and soffits</u>				
10	m ²	234		
<u>MOVEMENT JOINTS ETC</u>				
<u>Expansion joints with 10mm thick polystyrene backing joint filler between vertical concrete and brick surfaces</u>				
11	m	1 425		
<u>Expansion joints with 10mm thick polystyrene backing joint filler between vertical concrete surfaces, including necessary formwork</u>				
12	m	908		
<u>Saw-cut joints</u>				
13	m	908		
<u>REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)</u>				
<u>Provision for mild steel and high tensile steel reinforcement</u>				
14	Tonnes	19		
15	Tonnes	13		
<u>Fabric reinforcement</u>				
16	m ²	2 274		
Carried to Collection			R	
Bill No. 2 Concrete, Formwork And Reinforcement				

Amount

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

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Carried to Summary

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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.

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SUPPLEMENTARY PREAMBLES

Working at Heights

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Carried to Collection

R

Bill No. 3
Masonry

	Unit	Quantity	Rate	Amount
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar</u>				
4	L-shaped piers	m ³	12	
5	Piers	m ³	10	
6	Half brick walls	m ²	1 985	
7	One brick walls	m ²	3 868	
8	One brick walls in beam filling	m ²	144	
<u>MORTAR TESTING</u>				
<u>Mortar testing to SANS</u>				
9	Compressive strength 62 tests (Provisional)	No	80	
<u>BRICKWORK SUNDRIES</u>				
<u>Brickwork reinforcement</u>				
10	75mm Wide reinforcement built in horizontally	m	6 536	
11	150mm Wide reinforcement built in horizontally	m	13 842	
<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>				
12	110 x 75mm Lintels in lengths not exceeding 3m	m	526	
<u>Turning pieces to lintels etc</u>				
13	110mm Wide turning pieces	m	526	
<u>Galvanised hoop iron cramps, ties, etc</u>				
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	
<u>Air bricks etc</u>				
16	229 x 76mm Clay vermin proof air brick	No	156	
<u>FACE BRICKWORK</u>				
<u>"Corobrik Firelight Satin FBX" or other approved face bricks in stack bond pointed with recessed horizontal and vertical joints</u>				
17	Extra over brickwork for face brickwork in foundations (Provisional) (Labour Intensive)	m ²	478	
Carried to Collection			R	
Bill No. 3 Masonry				

Amount

BILL NO. 3
MASONRY
COLLECTION

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	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p>				
<p><u>Waterproofing</u></p> <p>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</p>				
<p><u>Proprietary branded products:</u></p> <p>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.</p>				
<p><u>DAMP-PROOFING OF WALLS AND FLOORS</u></p>				
<p><u>One layer of 375 micron "Consol Plastics Brickgrip DPC" embossed damp proof course</u></p>				
1	In walls	m ²	200	
<p><u>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape</u></p>				
2	Under surface beds including turn-ups and ground beams	m ²	2 274	
			Carried to Collection	R
<p>Bill No. 4 Waterproofing</p>				

	Unit	Quantity	Rate	Amount
<u>Mapelastic Smart: two-component, cementitious mortar applied to screed. Surface preparation and application as per supplier's recommendation.</u>				
3	In walls	m ²	96	
4	On shower floors	m ²	1	
<u>WATERPROOFING TO ROOFS</u>				
<u>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</u>				
5	On roof slabs	m ²	157	
6	Additional membranes, fillets and sealing at turn-ups and turn-downs	m ²	39	
<u>One layer "Bituthene 3000" waterproofing</u>				
7	Sealing edges to brickwork	m	582	
<u>PROTECTIVE ROOFING PAINT</u>				
<u>Two coats "Silvakote" bituminous aluminium paint</u>				
8	On waterproofing to roofs	m ²	157	
<u>Testing</u>				
9	Allow for flood testing of the waterproofing installation	Item		
<u>SEALING STRIPS, JOINT SEALANTS, ETC</u>				
<u>"Bostik" or other approved silicone sealant</u>				
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	
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Bill No. 4 Waterproofing				

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BILL NO. 4
WATERPROOFING
COLLECTION

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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.

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Carried to Collection

R

Bill No. 5
 Roof Coverings

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>SHEETING</u></p> <p>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</p> <p><u>FINISH FOR "KLIP-LOK 700" OR OTHER APPROVED ROOF SHEETING</u></p> <p>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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 5 Roof Coverings</p>			R	

	Unit	Quantity	Rate	Amount
<p><u>FIXING:</u></p> <p>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).</p> <p><u>"SAFINTRA" OR OTHER APPROVED FLASHINGS</u></p> <p>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.</p> <p><u>INSTALLATION</u></p> <p>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.</p> <p><u>SAFETY</u></p> <p>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.</p> <p><u>HANDLING AND STORAGE</u></p> <p>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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 5 Roof Coverings</p>			R	

	Unit	Quantity	Rate	Amount
<p><u>INSPECTION PRIOR TO INSTALLATION</u></p> <p>Before commencing installation, the Contractor shall verify that the following items have been checked and replaced:</p> <p>a. The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted.</p> <p>b. Purlins and girts are at the correct spacing and are within the specified tolerances.</p> <p>c. The corners of the roof are square and the wall framework is perpendicular or as specified.</p> <p>d. No protrusions such as bolt heads, splice plates, cleats, etc. should appear on the face of the framework.</p> <p>e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.</p> <p>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.</p> <p>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.</p> <p><u>PROTRUSION THROUGH SHEETED SURFACES</u></p> <p>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.</p> <p><u>GUARANTEE</u></p> <p>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</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 5 Roof Coverings</p>			R	

		Unit	Quantity	Rate	Amount
<u>CLEANING OF ROOF, ETC.</u>					
<u>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.</u>					
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
<u>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.</u>					
1	Roof covering with pitches not exceeding 25 degrees	m ²	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		
<u>ROOF AND WALL INSULATION</u>					
<u>4mm Alucushion foil/white sheeting on timber purlins in accordance with SANS, applied in strict accordance with manufacturers instructions:</u>					
10	Insulation sheeting laid taut over purlins including straining wires, etc.	m ²	3 236		
Carried to Collection				R	
Bill No. 5 Roof Coverings					

Amount

BILL NO. 5
ROOF COVERINGS
COLLECTION

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R

	Unit	Quantity	Rate	Amount
<p><u>BILL NO. 6</u> <u>CARPENTRY AND JOINERY</u></p> <p><u>(CPAP WORK GROUP NO. 126 UNLESS OTHERWISE STATED)</u> <u>CARPENTRY AND JOINERY</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Working at Heights</u></p> <p>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.</p>				
Carried to Collection			R	
<p>Bill No. 6 Carpentry And Joinery</p>				

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Fixing</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as bolted, the bolts have been given elsewhere</p> <p><u>NOTE: The following is applicable in respect of roof trusses:</u></p> <p>The Contractor shall allow for items deemed necessary for the proper design, fabrication and erection of the roof trusses, bracing, etc.</p> <p>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).</p> <p>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.</p> <p>Prices are to include for the provision of adequate temporary bracing during construction to the approval of Consulting Structural Engineer.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 6 Carpentry And Joinery</p>			R	

	Unit	Quantity	Rate	Amount
<p>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.</p>				
<p><u>PRETREATMENT OF TIMBER</u></p>				
<p>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.</p>				
<p>The Regulations require that timber be treated in terms of SANS as relevant. Bidders are to make allowance in their rates.</p>				
<p><u>ROOF CONSTRUCTION</u></p>				
<p><u>DESIGN, SUPPLY AND INSTALLATION OF TIMBER ROOF TRUSSES</u></p>				
<p>The Bidder must allow for all items deemed necessary for the proper design, fabrication and erection of roof trusses, bracing, etc.</p>				
<p>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.</p>				
<p>Roof coverings are 0.80mm thick "Kilp-Tite" aluminium sheets and ceilings, where applicable are 600 x 600mm suspended ceiling tiles or gypsum plasterboard.</p>				
<p>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.</p>				
<p><u>Joinery</u></p>				
<p>Descriptions of frames shall be deemed to include frames, transomes and rails</p>				
<p>Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts</p>				
<p><u>Fire doors</u></p>				
<p>Fire doors are to be in accordance with SANS 1253</p>				
<p style="text-align: right;">Carried to Collection</p>			R	
<p>Bill No. 6 Carpentry And Joinery</p>				

	Unit	Quantity	Rate	Amount
<u>STRUCTURAL TIMBERWORK ETC</u>				
<u>SA Pine or other approved</u>				
1	m	111		
<u>PREFABRICATED ROOF TRUSSES, ETC.</u>				
<u>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:</u>				
2	No	1		
3	No	1		
4	No	1		
Carried to Collection			R	
Bill No. 6 Carpentry And Joinery				

		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					

		Unit	Quantity	Rate	Amount
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		
	<u>The following certificates are required for timber roofs:</u>				
19	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			
	<u>Sawn softwood</u>				
20	25 x 304mm Valley boarding	m	55		
21	38 x 114mm Wall plates	m	424		
22	50 x 75mm Purlins	m	2 630		
	<u>EAVES, VERGES, ETC</u>				
	<u>"Everite Nutec" or other approved medium density plain fibre-cement fascias and barge boards</u>				
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		
	<u>DOORS</u>				
	<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				

	Unit	Quantity	Rate	Amount
<u>Timber Doors</u>				
The tenderers are referred to the Architectural drawing No. 23002 - TD401, when pricing the following doors.				
<u>Timber solid core flush panel door hung to steel frames</u>				
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	
	Carried to Collection			R
Bill No. 6 Carpentry And Joinery				

		Unit	Quantity	Rate	Amount
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 melamine 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 melamine 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 melamine 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 melamine 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		
	<u>Counter tops, desks and tables</u>				
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				

		Unit	Quantity	Rate	Amount
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					
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CARPENTRY AND JOINERY
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Unit Quantity Rate Amount

BILL NO. 7
CEILING 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/alterd. 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

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Bulkheads</u></p> <p>Bulkheads are defined as those portions of ceilings 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 services or to create architectural features</p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions are to be galvanised in accordance with SANS 121</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 7 Ceilings Partitions And Access Flooring</p>			R	

Amount

BILL NO. 7

CEILINGS PARTITIONS AND ACCESS FLOORING

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Bill No. 7

Ceilings Partitions And Access Flooring

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 Collection

R

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
<p>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.</p>				
<u>Fixing</u>				
<p>Floor coverings, wall linings shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings</p>				
<u>FLOOR COVERINGS</u>				
<u>2.5mm Homogeneous fully flexible seamless vinyl sheeting with welded joints fully bonded with adhesive installed complete on well prepared granolithic floor finish</u>				
1	F1 - Vinyl Sheeting on floors	m ²	1 151	
<u>Artificial lawn on well prepared granolithic floor finish</u>				
2	F4 - Artificial lawn on floors	m ²	631	
<u>SKIRTINGS AND NOSINGS</u>				
<u>70mm FLOORWORX Coved Vinyl Skirting, colour to match</u>				
3	SK1 - Vinyl coved skirting	m	1 096	
<u>POLISH, SEALERS, ETC</u>				
<u>Polish, Sealers, etc.</u>				
4	Thoroughly 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)	m ²	1 151	
Carried to Collection			R	
Bill No. 8				
Floor Coverings				

Amount

BILL NO. 8
FLOOR COVERINGS
COLLECTION

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Carried to Summary

R

Unit Quantity Rate Amount

BILL NO. 9
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 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

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p>				
<p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items</p> <p>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</p> <p>On request returnable samples are to be provided to the principal agent for consideration</p>				
<p><u>Finishes to ironmongery</u></p> <p>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</p>				
<p><u>HINGES AND BOLTS</u></p> <p><u>"Dormakaba" or similar approved</u></p>				
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
<p>Bill No. 9 Ironmongery</p>				

		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		
	<u>HANDLES</u>				
	<u>"Dormakaba" or similar approved</u>				
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		
	<u>LOCKS</u>				
	<u>"Assa Abloy" or similar approved</u>				
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		
	<u>DOOR CLOSERS</u>				
	<u>"Assa Abloy" or similar approved</u>				
14	Double action transom closure with and including shoe strap	Pairs	9		
	<u>SUNDRIES</u>				
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		
	<u>"Khomanani" or other approved</u>				
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				

	Unit	Quantity	Rate	Amount
<u>LETTERS AND NAMEPLATES</u>				
<u>Signage</u>				
22	Item			0 00
Provide a budgetary amount of R 200,000.00 (Two hundred thousand Rand) for statutory fire signage and general direction signage				
<u>PUSH PLATES AND KICK PLATES</u>				
<u>"Assa Abloy" or similar approved</u>				
23	No	31		
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.				
24	No	55		
300 x 1.2mm Thick grade 304 stainless steel kick plate. Stainless steel plate to have four no. countersunk holes for screw fixing.				
25	No	16		
900 x 1.2mm Thick grade 304 stainless steel kick plate. Stainless steel plate to have four no. countersunk holes for screw fixing.				
<u>BATHROOM FITTINGS</u>				
<u>"Bathroom butler" or similar approved</u>				
26	No	5		
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.				
27	No	5		
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 screws.				
<u>Sanitary Fittings by manufacturer</u>				
28	No	3		
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				
29	No	62		
Circular galvanised wall mounted refuse bag holder, black rubber lid, bungee cord bag clamp, wall mounting point, diametre 445mm x 120mm height				
Carried to Collection			R	
Bill No. 9 Ironmongery				

	Unit	Quantity	Rate	Amount
<u>"Franke" or other approved</u>				
30	No	14		
<p>Franke Stratos STRX 672E, 1,2/1,5mm thick grade 304 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 with stainless steel screws.</p>				
31	No	46		
<p>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.</p>				
32	No	46		
<p>Frank Stratos STRX 611 Or similar approved 1,2/ 1,5mm thick grade 304 18/10 satin stainless steel sanitary 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.</p>				
33	No	15		
<p>Franke BHM 16P or similar approved polished stainless robe hooks, plugged and screwed to the wall with and including stainless steel screws</p>				
34	No	1		
<p>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)</p>				
<u>SHELVES ETC</u>				
<u>Steel shelving with standard epoxy coated finish</u>				
35	No	50		
<p>900 x 600 x 2000mm steel shelf with and including 5No. shelves</p>				
<u>BUDGETARY ALLOWANCES</u>				
<u>Waiting Area Chairs</u>				
36	Item			210 000 00
<p>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</p>				
Carried to Collection			R	
<p>Bill No. 9 Ironmongery</p>				

Amount

BILL NO. 9
IRONMONGERY
COLLECTION

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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.

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Working at Heights

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Carried to Collection

R

Bill No. 10
 Structural Steelwork (provisional)

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p><u>Structural Steelwork:</u></p> <p>All work to be in accordance with SANS 1200H</p> <p>All welds to be minimum 6mm continuous fillet welds.</p> <p>All steelwork to be grade S355JR (unless otherwise stated).</p> <p>All purlins to be commercial grade purlins.</p> <p>All bolts to be grade 8.8 bolts.</p> <p>All commercial quality HD bolts and steelwork to have a minimum grade stress of 250MPa.</p> <p>All steelwork to be hot dipped galvanised to ISO 1461 or EN 10240, unless otherwise stated.</p> <p>Galvanising certificate for all steelwork is to be issued to the Engineer upon completion of galvanising.</p> <p>Two sets of fabrication drawings are to be provided to the Engineer for approval prior to commencement of fabrication.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 10 Structural Steelwork (provisional)</p>			R	

	Unit	Quantity	Rate	Amount
<p>Certificates confirming the grade stress of all steelwork and bolts specified is to be submitted to the Engineer on completion.</p> <p><u>Hot dipped galvanising:</u></p> <p>The mass of hot dip galvanised steelwork has been calculated on the mass before galvanising for which allowance must be made in the pricing.</p> <p>Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.</p> <p>Where possible all welds to galvanised steelwork shall be completed before galvanising.</p> <p><u>HOT DIPPED GALVANISED STEEL COLUMNS AND BEAMS</u></p> <p><u>Hot dipped galvanised welded columns in single lengths with flat bearer and connection plates, bolted to concrete (Provisional)</u></p>				
1	Tonnes	2		
<p><u>HOT DIPPED GALVANISED FIXING DETAILS (PROVISIONAL)</u></p>				
2	Tonnes	1		
<p><u>HOT DIPPED GALVANISED BOLTS, FASTENERS, ETC</u></p> <p><u>Hot dipped galvanised bolts and fasteners (Provisional)</u></p>				
3	No	160		
4	No	176		
Carried to Collection			R	
Bill No. 10				
Structural Steelwork (provisional)				

Amount

BILL NO. 10

STRUCTURAL STEELWORK (PROVISIONAL)

COLLECTION

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Bill No. 10

Structural Steelwork (provisional)

Unit Quantity Rate Amount

BILL NO. 11
METALWORK

(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)

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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

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Descriptions of bolts, anchors, etc.</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as 'holed for bolt(s)' shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Rates shall include for the following:</u></p> <p>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.</p> <p>Building in and fixing into preformed openings. Window opening sizes to be verified on site before windows can be manufactured.</p> <p>Complete ironmongery to all aluminium doors and windows</p> <p>Complete glazing as described with and including matching aluminium glazing beads and gaskets and glazed in accordance with the manufacturer's written instructions.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 11 Metalwork</p>			R	

	Unit	Quantity	Rate	Amount
<p>All opening and fixed lights, coupling mullions and transoms, fittings, ironmongery, etc. As required.</p> <p><u>Powdercoated aluminium windows, doors, etc.:</u></p> <p>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.</p> <p>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 discrepancy</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><u>Welded joints and intersections:</u></p> <p>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.</p> <p>Prices of balustrades, burglar guards and the like shall include for framed and welded joints and intersections.</p> <p><u>Hot dipped galvanising:</u></p> <p>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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 11 Metalwork</p>			R	

	Unit	Quantity	Rate	Amount
<p>Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.</p> <p><u>Anodising:</u> 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.</p> <p><u>Screws and bolts:</u> 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.</p> <p>Where bolting is specified, projecting shank ends of bolts shall be cut flush and left smooth.</p> <p><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.</p> <p><u>STEEL GATES AND SCREENS</u></p> <p><u>Welded screens and gates as per Architects drawing no.23002-TD402</u></p>				
1	No	4		
<p>1500 x 1190 x 40mm Powder coated steel frame with ClearVu infill screen including fixings all as per manufacturers instruction</p>				
<p><u>Sundries</u></p>				
2	No	2		
<p>Stainless steel metal base with stainless steel metal top preparation table overall size 1800mm x 700mm x 900mm high</p>				
3	No	8		
<p>Washing line</p>				
			Carried to Collection	R
<p>Bill No. 11 Metalwork</p>				

		Unit	Quantity	Rate	Amount
<u>STAINLESS STEEL MINOR WORK</u>					
<u>Corner protectors:</u>					
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		
<u>Galvanised steel posts</u>					
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		
<u>DOOR FRAMES, DOORS AND WINDOWS</u>					
<u>STEEL DOOR FRAMES</u>					
<u>1,6mm Double rebated stainless steel frame made of Grade 304 steel</u>					
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		
<u>STEEL ROLLER SHUTTERS ETC</u>					
<u>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</u>					
10	Chain operated slatted roller shutter for 1000 x 1200mm high opening	No	1		
<u>STEEL RECORDROOM AND STRONGROOM DOORS, VENTILATORS, ETC</u>					
<u>Chubb or other approved strong room doors etc suitable for 230mm walls fixed to brickwork or concrete</u>					
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					

		Unit	Quantity	Rate	Amount
<p><u>POWDER COATED ALUMINIUM WINDOWS, DOORS, ETC. (CPAP WORK GROUP NO.140)</u></p> <p>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.</p> <p><u>Crealco Swift 38 extruded aluminium sections to sizes as shown to comply with 'aamsa' 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</u></p>					
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		
<p><u>ALUMINIUM LOUVRE UNITS (CPAP WORK GROUP NO. 140)</u></p> <p><u>"Crealco swift 38" or other approved fixed louvre units fixed to brickwork or concrete</u></p>					
18	Purpose made louvre unit for 1200 x 600mm high opening	No	9		
Carried to Collection				R	
<p>Bill No. 11 Metalwork</p>					

Amount

BILL NO. 11
METALWORK
COLLECTION

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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

Bill No. 12
Plastering

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Preparation</u></p> <p>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.</p> <p><u>Mix</u></p> <p>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.</p> <p><u>Panels</u></p> <p>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</p> <p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 12 Plastering</p>			R	

	Unit	Quantity	Rate	Amount
<p>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</p> <p>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</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.</p> <p><u>Colour</u></p> <p>Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.</p> <p><u>SCREEDS</u></p> <p><u>Cement plaster screeds, wood floated on concrete</u></p>				
1	m ²	157		
2	m ²	1 464		
<p><u>GRANOLITHIC</u></p> <p><u>Untinted granolithic, on concrete</u></p>				
3	m ²	1 021		
<p><u>SPECIALIST FLOOR COVERINGS</u></p> <p><u>EPOXY FLOORING SYSTEM, ETC</u></p> <p><u>4mm Epoxy Seamless Slip Resistant or 4mm matt polyurethane floor finish using a proprietary bonding agent or 1:1 cement: sand grout</u></p>				
4	m ²	83		
<p><u>75mm high coved FLOWCRETE Epoxy skirting</u></p>				
5	m	142		
<p><u>INTERNAL PLASTER</u></p> <p><u>12mm thick Cement plaster wood floated, on brickwork</u></p>				
6	m ²	5 308		
7	m ²	160		
Carried to Collection			R	
<p>Bill No. 12 Plastering</p>				

Amount

BILL NO. 12
PLASTERING
COLLECTION

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Carried to Summary

R

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.

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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/alterd. 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

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Fixing</u></p> <p>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</p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat</p> <p>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</p> <p><u>WALL TILING</u></p> <p><u>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</u></p>				
1	m ²	272		
2	m ²	37		
3	m ²	9		
Carried to Collection			R	
<p>Bill No. 13 Tiling</p>				

	Unit	Quantity	Rate	Amount
<u>FLOOR TILING</u>				
<u>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)</u>				
4	m ²	58		
5	m	40		
<u>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</u>				
6	m ²	171		
7	m	221		
Carried to Collection			R	
Bill No. 13				
Tiling				

Amount

BILL NO. 13
TILING
COLLECTION

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Carried to Summary

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.

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SUPPLEMENTARY PREAMBLES

Working at Heights

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Carried to Collection

R

Bill No. 14
 Plumbing And Drainage (provisional)

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets shall be deemed to include wire balloon gratings</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600</p> <p><u>uPVC pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>"Polycop" polypropylene pipes</u></p> <p>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</p> <p>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</p>				
Carried to Collection			R	
<p>Bill No. 14</p> <p>Plumbing And Drainage (provisional)</p>				

	Unit	Quantity	Rate	Amount
<p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016</p> <p><u>Reducing fittings</u></p> <p>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</p> <p><u>Fixing of pipes</u></p> <p>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</p> <p><u>Paper wrapping to pipes</u></p> <p>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</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion in accordance with SANS (provision for disinfection elsewhere)</p> <p><u>General</u></p> <p>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.</p> <p><u>As-built drawings</u></p> <p>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)</p>				
Carried to Collection			R	
Bill No. 14 Plumbing And Drainage (provisional)				

		Unit	Quantity	Rate	Amount
<u>RAINWATER DISPOSAL</u>					
<u>0.9mm Seamless aluminium prepainted gutters and rainwater pipes</u>					
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>					
<u>WC Units</u>					
8	Geberit Abalona wall hung 530mm (l) 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		
<u>Handwash basins</u>					
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)					

	Unit	Quantity	Rate	Amount
<u>TAPS, VALVES, ETC</u>				
<u>Taps</u>				
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	
<u>Valves</u>				
27	Walcro 25mm diametre bsp concealed vandal resistant dzt 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	
<u>SANITARY PLUMBING</u>				
<u>uPVC pipes</u>				
31	50mm Pipes	m	630	
32	110mm Pipes	m	225	
<u>Extra over uPVC pipes for fittings</u>				
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)				

		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		
	<u>WATER SUPPLIES</u>				
	<u>Class 460/2 copper pipes</u>				
65	15mm Pipes	m	624		
66	22mm Pipes	m	246		
67	28mm Pipes	m	207		
68	35mm Pipes	m	204		
	<u>Extra over Class 2 copper pipes for capillary fittings</u>				
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		
	<u>Extra over Class 2 copper pipes for brass compression fittings</u>				
76	15mm Fittings	No	44		
77	22mm Fittings	No	49		
78	28mm Fittings	No	61		
79	35mm Copper to iron straight connector	No	61		
	<u>ELECTRIC WATER HEATERS</u>				
	<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)				

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

Amount

BILL NO. 14

PLUMBING AND DRAINAGE (PROVISIONAL)

COLLECTION

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Bill No. 14

Plumbing And Drainage (provisional)

Unit Quantity Rate Amount

BILL NO. 15
GLAZING

(CPAP WORK GROUP NO. 150 UNLESS OTHERWISE STATED)

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SUPPLEMENTARY PREAMBLES

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Carried to Collection

R

Bill No. 15
 Glazing

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p>				
<p><u>Float glass</u></p> <p>The term "float glass" is used for monolithic annealed glass</p>				
<p><u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u></p>				
<p><u>5mm Silvered float glass copper backed mirrors with polished edges, holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</u></p>				
1	No	54		
			Carried to Collection	R
<p>Bill No. 15 Glazing</p>				

Amount

BILL NO. 15
GLAZING
COLLECTION

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Carried to Summary

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Bill No. 15
Glazing

Unit Quantity Rate Amount

BILL NO. 16
PAINTWORK

(CPAP WORK GROUP NO. 152 UNLESS OTHERWISE STATED)

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Carried to Collection

R

Bill No. 16
 Paintwork

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>General preparation to all surfaces:</u></p> <p>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.</p> <p>All surfaces shall be sanded down smooth prior to application of first coat of paint and between succeeding coats.</p> <p>Spot sheets are to be provided to prevent spotting of all adjacent surfaces.</p> <p><u>Finishing coats:</u></p> <p>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.</p> <p><u>Sight lines:</u></p> <p>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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Bill No. 16 Paintwork</p>			R	

	Unit	Quantity	Rate	Amount
<u>Surfaces to be dry:</u>				
All plastered wall and ceiling surfaces shall be perfectly dry prior to application of paint.				
<u>Sanding to timber floors:</u>				
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.				
<u>Moisture content:</u>				
The moisture level of the substrate must be less than 8% on the BD2 scale measure on the Dozer Hygrometer before applying the primer				
<u>PAINTWORK TO NEW WORK</u>				
<u>ON INTERNAL FLOATED PLASTER SURFACES</u>				
<u>Prepare surface as per manufacturer's specification and apply 1 undercoat & 2 coats Plascon Wall and All</u>				
1	m ²	5 308		
<u>ON PLASTERBOARD SURFACES</u>				
<u>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</u>				
2	m ²	727		
3	m ²	348		
4	m	171		
<u>ON INTERNAL SMOOTH CONCRETE SURFACES</u>				
<u>Prepare surface as per manufacturer's specification and apply 1 undercoat & 2 coats Plascon Velvaglo. Colour RAL 9018, Papyrus White</u>				
5	m ²	11		
<u>ON METAL SURFACES</u>				
<u>Prepare surface as per manufacturer's specification and apply 1 undercoat & 2 coats Plascon Velvaglo.</u>				
6	m ²	80		
7	m ²	20		
Carried to Collection			R	
Bill No. 16 Paintwork				

Amount

BILL NO. 16
PAINTWORK
COLLECTION

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SECTION NO. 1

SITE WORKS

Unit Quantity Rate Amount

SECTION NO. 1

SITE WORKS

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.

Carried to Collection

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Section No. 1

Bill No. 1

Earthworks

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.</p> <p><u>Bulking</u></p> <p>No allowance has been made for Bulking.</p> <p><u>Filling</u></p> <p>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</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with the relevant sections of SANS.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 1 Bill No. 1 Earthworks</p>			R	

	Unit	Quantity	Rate	Amount
<u>Proximity to existing structures</u>				
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>THE FOLLOWING TO COURTYARDS</u>				
<u>Earthworks</u>				
1				
Excavation in earth not exceeding 2m deep for reducing levels under floors				
	m ³	314		
<u>Extra over bulk excavation in soft material for excavation in :</u>				
2				
Soft rock				
	m ³	31		
3				
Intermediate material				
	m ³	25		
4				
Hard rock				
	m ³	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				
	m ²	112		
<u>Extra over all excavation for carting away</u>				
7				
Surplus material from excavation and/or stock piles on site to a dumping site to be located by the Contractor				
	m ³	314		
8				
150mm Thick earth filling of G2 quality supplied by the contractor compacted to 90% Mod AASHTO density				
	m ³	79		
9				
150mm Thick earth filling of G5 quality supplied by the contractor compacted to 95% Mod AASHTO density				
	m ³	79		
10				
Coarse river sand filling supplied by the contractor				
	m ³	26		
11				
Reinforced concrete Class 25/19 in surface beds				
	m ³	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				
	m ²	587		
14				
Rough formwork to sides edges, risers, ends and reveals not exceeding 300mm high or wide				
	m	208		
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Earthworks				

		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	m ²	587		
18	One layer of 250 micron green polyethylene waterproof sheeting sealed at laps with pressure sensitive tape Under surface beds	m ²	577		
<u>REMOVAL OF TREES ETC</u>					
<u>Cutting down and removing, grubbing up roots and filling in holes</u>					
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		
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EARTHWORKS
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SITE WORKS

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SECTION NO. 2
BULK EARTHWORKS

Unit Quantity Rate Amount

SECTION NO. 2

BULK EARTHWORKS

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 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.

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Bill No. 1

Earthworks

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.</p> <p><u>Bulking</u></p> <p>No allowance has been made for Bulking.</p> <p><u>Filling</u></p> <p>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</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with the relevant sections of SANS.</p>				
<p>Section No. 2 Bill No. 1 Earthworks</p>			<p>Carried to Collection</p>	<p>R</p>

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BULK EARTHWORKS

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SECTION NO. 3

ROADWORKS

Unit Quantity Rate Amount

SECTION NO. 3

ROADWORKS

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:

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Carried to Collection

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Section No. 3

Bill No. 1

Earthworks

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.</p> <p><u>Bulking</u></p> <p>No allowance has been made for Bulking.</p> <p><u>Filling</u></p> <p>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</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with the relevant sections of SANS.</p>				
<p>Section No. 3 Bill No. 1 Earthworks</p>			<p>Carried to Collection</p>	<p>R</p>

		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	m ²	2 400		
	<u>Prescribed density tests on filling</u>				
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		
	<u>Prepare and apply one coat reflective road marking paint on bituminous road surfacing, precast concrete,paving blocks, etc</u>				
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		
	<u>ROAD SIGNS</u>				
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		
	<u>PRECAST AND BRICK PAVING</u>				
	<u>"Corobrik PA Paver- Burgundy" or other approved 200 x 95mm brick paving on and including 20mm thick layer of river sand</u>				
23	65mm Paving in herringbone pattern to pedestrain areas, etc to falls	m ²	1 488		
24	Extra over for straight edge blocks.	m	1 210		
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		Unit	Quantity	Rate	Amount
	<u>"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)</u>				
25	80mm Paving in herringbone pattern to parking areas, etc to falls	m ²	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.	m ²	3 684		
	<u>PRECAST KERBS, ACCESSORIES, ETC.</u>				
	<u>Precast concrete finishes smooth on exposed surfaces including bedding, cutting and pointing</u>				
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 cement 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.	m	1 172		
30	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, 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 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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ROADWORKS

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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.

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Working at Heights

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Section No. 4
 Bill No. 1
 Perimeter Fencing

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
<p>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.</p>				
<u>FENCING</u>				
<u>"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</u>				
1	m	553		
<u>Hot dipped galvanised posts</u>				
2	No	280		
3	No	24		
4	No	4		
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Perimeter Fencing				

		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		
<u>The following in 20MPa/19mm concrete bases</u>					
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		
<u>Gates, etc as per architects drawing No. 23002 - TD 401 REV A</u>					
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
<p><u>SECTION NO. 5</u> <u>SOIL DRAINAGE</u> <u>BILL NO. 1</u> <u>EXTERNAL WORKS</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</p> <p>Take note that these Model Bills of Quantities utilise abbreviated descriptions</p>				
<p>Section No. 5 Bill No. 1 External Works</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p>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 applicable (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</p> <p>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2008</p> <p><u>Working at Heights</u></p> <p>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.</p> <p><u>Labour Intensive</u></p> <p>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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 5 Bill No. 1 External Works</p>			R	

	Unit	Quantity	Rate	Amount
<u>SOIL DRAINAGE</u>				
<u>uPVC Class 34 pipes</u>				
1	m	93		
2	m	93		
3	m	144		
<u>Extra over uPVC Class 34 pipes for fittings</u>				
4	No	30		
5	No	20		
<u>Pipe excavation sundries</u>				
6	m ³	540		
<u>GULLIES</u>				
7	No	21		
8	No	21		
<u>SOIL DRAIN INSPECTION CHAMBERS, MANHOLES, ETC</u>				
<u>Precast concrete circular inspection chambers (covers elsewhere measured) including excavations in soft material, risk of collapse, backfilling, etc</u>				
9	No	7		
10	No	6		
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SECTION NO. 6

SEPTIC TANKS AND SOAK AWAYS

Unit Quantity Rate Amount

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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.

Carried to Collection

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Section No. 6

Bill No. 1

Earthworks

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.</p> <p><u>Bulking</u></p> <p>No allowance has been made for Bulking.</p> <p><u>Filling</u></p> <p>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</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with the relevant sections of SANS.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Bill No. 1 Earthworks</p>			R	

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

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BILL NO. 1
EARTHWORKS
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Section No. 6
Bill No. 1
Earthworks

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

Bill No. 2

Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Concrete</u></p> <p>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.</p> <p>Bidders are to note that delay claims related to the supply of concrete decking, reinforcement, etc. will not be entertained and are thus urged to take cognisance of quantities required and secure supply accordingly</p> <p><u>Cost of tests</u></p> <p>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).</p> <p><u>Formwork</u></p> <p>Formwork to soffits of solid slabs shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>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</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Bill No. 2 Concrete, Formwork And Reinforcement</p>			R	

	Unit	Quantity	Rate	Amount
<p>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"</p>				
<p><u>Finishing</u></p> <p>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.</p>				
<p><u>Mesh reinforcement</u></p> <p>Mesh reinforcement is measured net, contractor to take consideration of lapping</p>				
<p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p>				
<p><u>15Mpa/19mm concrete</u></p>				
1	m ³	2		
<p><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></p>				
<p><u>25MPa/19mm concrete</u></p>				
2	m ³	5		
3	m ³	13		
<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p>				
<p><u>25MPa/19mm concrete</u></p>				
4	m ³	8		
<p><u>TEST CUBES</u></p>				
<p><u>Test Cubes</u></p>				
5	No	15		
<p><u>CONCRETE SUNDRIES</u></p>				
<p><u>Finishing top surfaces of concrete smooth with a wood float</u></p>				
6	m ²	57		
Carried to Collection			R	
Section No. 6				
Bill No. 2				
Concrete, Formwork And Reinforcement				

		Unit	Quantity	Rate	Amount
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>(CPAP WORK GROUP NO. 111)</u>					
<u>Rough formwork to sides</u>					
7	Walls in foundations (Provisional)	m ²	138		
<u>Rough formwork to soffits</u>					
8	Slabs propped up exceeding 1.5m and not exceeding 3.5m high	m ²	13		
<u>REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)</u>					
<u>Mild steel reinforcement to structural concrete work</u>					
9	Bars of various diameter	Tonnes	0.80		
<u>High tensile steel reinforcement to structural concrete work</u>					
10	Bars of various diameter	Tonnes	3.18		
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Concrete, Formwork And Reinforcement					

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BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
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Concrete, Formwork And Reinforcement

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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.

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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

Bill No. 3

Waterproofing

		Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p>					
<p><u>Waterproofing</u></p> <p>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</p>					
<p><u>Proprietary branded products:</u></p> <p>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.</p>					
<p><u>DAMP-PROOFING OF WALLS AND FLOORS</u></p>					
<p><u>Two coats bitumen emulsion waterproof coating</u></p>					
1	On concrete walls and columns in foundations (Provisional)	m ²	64		
<p><u>WATERPROOFING</u></p>					
<p><u>"Prostruct" 526 MCI, or other approved, Cementitious waterproofing system</u></p>					
2	On floors and walls	m ²	92		
				Carried to Collection	R
<p>Section No. 6 Bill No. 3 Waterproofing</p>					

Amount

BILL NO. 3
WATERPROOFING
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Section No. 6
Bill No. 3
Waterproofing

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 6</u> <u>SEPTIC TANKS AND SOAK AWAYS</u> <u>BILL NO. 4</u> <u>PLUMBING AND DRAINAGE</u></p> <p><u>SOIL DRAINAGE (CPAP WORK GROUP NO. 146)</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Working at Heights</u></p> <p>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.</p>				
<p>Section No. 6 Bill No. 4 Plumbing And Drainage</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets shall be deemed to include wire balloon gratings</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600</p> <p><u>uPVC pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>"Polycop" polypropylene pipes</u></p> <p>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</p> <p>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</p>				
<p>Section No. 6 Bill No. 4 Plumbing And Drainage</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016</p>				
<p><u>Reducing fittings</u></p> <p>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</p>				
<p><u>Fixing of pipes</u></p> <p>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</p>				
<p><u>Paper wrapping to pipes</u></p> <p>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</p>				
<p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion in accordance with SANS (provision for disinfection elsewhere)</p>				
<p><u>General</u></p> <p>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.</p>				
<p><u>As-built drawings</u></p> <p>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)</p>				
<p><u>uPVC Class 34 pipes</u></p>				
1		160mm pipes laid in and including trenches not exceeding 1m deep	m	30
Carried to Collection				R
<p>Section No. 6 Bill No. 4 Plumbing And Drainage</p>				

	Unit	Quantity	Rate	Amount
<u>Extra over uPVC Class 34 pipes for fittings</u>				
2	No	4		
3	No	8		
<u>Fiberite or other approved composite circular manhole cover and frame</u>				
4	No	6		
Carried to Collection				
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BILL NO. 4
PLUMBING AND DRAINAGE
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Plumbing And Drainage

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SECTION NO. 6

SEPTIC TANKS AND SOAK AWAYS

SECTION SUMMARY

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Section No. 6
SECTION SUMMARY

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SECTION NO. 7
ATTENUATION TANK

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 7</u> <u>ATTENUATION TANK</u> <u>BILL NO. 1</u> <u>EARTHWORKS</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Working at Heights</u></p> <p>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.</p>				
<p>Section No. 7 Bill No. 1 Earthworks</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.</p> <p><u>Bulking</u></p> <p>No allowance has been made for bulking</p> <p><u>Filling</u></p> <p>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</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with the relevant section of SANS</p>				
<p>Section No. 7 Bill No. 1 Earthworks</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<u>Proximity to existing structures</u>				
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>EXCAVATIONS ETC</u>				
<u>Excavation in earth for basement</u>				
1				
	m ³	405		
2				
	m ³	304		
<u>Extra over all excavations for carting away</u>				
3				
	m ³	709		
<u>Risk of collapse of excavations</u>				
4				
	m ²	104		
5				
	m ²	138		
<u>Keeping excavations free of water</u>				
6				
	Item			
<u>FILLING, ETC</u>				
<u>Filling of gravel-soil material G7 supplied by the contractor, compacted to 95% Mod AASHTO density</u>				
7				
	m ³	30		
<u>Filling of natural gravel material G5 supplied by the contractor, compacted to 98% Mod AASHTO density</u>				
8				
	m ³	30		
<u>Compaction of ground surfaces</u>				
9				
	m ²	203		
<u>WEED KILLERS, INSECTICIDES, ETC</u>				
<u>Soil insecticide in accordance with SANS 5859</u>				
10				
	m ²	444		
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EARTHWORKS
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Section No. 7
Bill No. 1
Earthworks

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.

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SUPPLEMENTARY PREAMBLES

Working at Heights

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Carried to Collection

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Section No. 7

Bill No. 2

Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Concrete</u></p> <p>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.</p> <p>Bidders are to note that delay claims related to the supply of concrete decking, reinforcement, etc. will not be entertained and are thus urged to take cognisance of quantities required and secure supply accordin</p> <p><u>Cost of tests</u></p> <p>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).</p> <p><u>Formwork</u></p> <p>Formwork to soffits of solid slabs shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>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</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement</p>			R	

	Unit	Quantity	Rate	Amount
<p>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"</p> <p><u>General Notes : Temporary Support Work and Back Propping Specifications and Requirements:</u></p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><u>As per Construction Regulations 2014: Temporary Formwork and Support work of OHS ACT 1993</u></p> <p>"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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement</p>			R	

	Unit	Quantity	Rate	Amount
<p>"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".</p> <p>A contractor shall ensure that :</p> <p>"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.</p> <p>"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.</p> <p>"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.</p> <p>"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.</p> <p>"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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement</p>			R	

	Unit	Quantity	Rate	Amount
<p>"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.</p> <p>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.</p> <p>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</p> <p><u>Finishing</u></p> <p>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.</p> <p><u>Mesh reinforcement</u></p> <p>Mesh reinforcement is measured net, contractor to take consideration of lapping</p> <p><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></p> <p><u>25MPa/19mm concrete</u></p>				
1	m ³	5		
<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p>				
2	m ³	51		
3	m ³	13		
<p><u>TEST CUBES</u></p> <p><u>Test Cubes</u></p>				
4	No	36		
<p><u>CONCRETE SUNDRIES</u></p> <p><u>Finishing top surfaces of concrete smooth with a steel trowel</u></p>				
5	m ²	203		
Carried to Collection			R	
<p>Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement</p>				

	Unit	Quantity	Rate	Amount
<u>Grooves, channels, mortices, sinkings, etc in concrete</u>				
6	m	103		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II) (CPAP WORK GROUP NO. 111)</u>				
<u>Rough formwork to sides</u>				
7	m ²	28		
8	m ²	3		
<u>Rough formwork to soffits</u>				
9	m ²	16		
<u>REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)</u>				
<u>Mild steel reinforcement to structural concrete work</u>				
10	Tonnes	1.00		
<u>High tensile steel reinforcement to structural concrete work</u>				
11	Tonnes	1.00		
<u>Fabric reinforcement</u>				
12	m ²	192		
13	m ²	203		
<u>BUDGETARY ALLOWANCE</u>				
<u>Rib and Block System</u>				
14	Item			
Carried to Collection			R	
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Concrete, Formwork And Reinforcement				

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BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
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Section No. 7
Bill No. 2
Concrete, Formwork And Reinforcement

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 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

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Section No. 7

Bill No. 3

Masonry

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
<p>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.</p>				
<u>Sizes in descriptions</u>				
<p>Where sizes in descriptions are given in brick units, one brick shall represent the length and half brick the width of a brick</p>				
<u>Bagged and sealed walls</u>				
<p>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</p>				
<u>Face bricks</u>				
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>				
<u>Pointing</u>				
<p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>				
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc</u>				
1	Piers	m ³	1	
2	One brick walls	m ²	31	
3	One and half brick walls	m ²	11	
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Section No. 7				
Bill No. 3				
Masonry				

	Unit	Quantity	Rate	Amount
4 300mm Hollow walls of two half brick skins, including type R8 wall ties every third course	m ²	179		
<u>Brickwork Sundries</u>				
5 Closing 70mm cavities of hollow walls vertically with 15MPa/19mm concrete	m ³	13		
<u>2.5mm Brickwork reinforcement</u>				
6 75mm Wide reinforcement built in horizontally	m	139		
7 150mm Wide reinforcement built in horizontally	m	2 731		
<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>				
8 110 x 75mm Lintels in lengths not exceeding 3m	m	22		
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MASONRY
COLLECTION

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Section No. 7
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Masonry

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 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

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Section No. 7

Bill No. 4

Metalwork

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Descriptions of bolts, anchors, etc.</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Items described as 'holed for bolt(s)' shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>Rates shall include for the following:</u></p> <p>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.</p> <p>Building in and fixing into preformed openings. Window opening sizes to be verified on site before windows can be manufactured.</p> <p>Complete ironmongery to all aluminium doors and windows</p> <p>Complete glazing as described with and including matching aluminium glazing beads and gaskets and glazed in accordance with the manufacturer's written instructions.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Bill No. 4 Metalwork</p>			R	

	Unit	Quantity	Rate	Amount
<p>All opening and fixed lights, coupling mullions and transoms, fittings, ironmongery, etc. As required.</p> <p><u>Powdercoated aluminium windows, doors, etc.:</u></p> <p>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.</p> <p>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 discrepancy</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><u>Welded joints and intersections:</u></p> <p>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, mitring, scribing, shaping, welding, bends, knees, ramps, etc.</p> <p>Prices of balustrades, burglar guards and the like shall include for framed and welded joints and intersections.</p> <p><u>Hot dipped galvanising:</u></p> <p>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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 7 Bill No. 4 Metalwork</p>			R	

	Unit	Quantity	Rate	Amount
<p>Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.</p> <p><u>Anodising:</u> 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.</p> <p><u>Screws and bolts:</u> 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.</p> <p>Where bolting is specified, projecting shank ends of bolts shall be cut flush and left smooth.</p> <p><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.</p> <p><u>GALVANISED MILD STEEL</u></p> <p><u>Step iron, etc</u></p>				
1	No	40		
Carried to Collection			R	
Section No. 7 Bill No. 4 Metalwork				

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METALWORK
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Section No. 7
Bill No. 4
Metalwork

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	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 7</u> <u>ATTENUATION TANK</u> <u>BILL NO. 5</u> <u>PLASTERING</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Working at Heights</u></p> <p>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.</p>				
<p>Section No. 7 Bill No. 5 Plastering</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Preparation</u></p> <p>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.</p> <p><u>Mix</u></p> <p>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.</p> <p><u>Panels</u></p> <p>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</p>				
<p>Section No. 7 Bill No. 5 Plastering</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Laying</u></p> <p>Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>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</p> <p>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</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.</p> <p><u>Colour</u></p> <p>Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.</p> <p><u>SCREEDS</u></p> <p><u>Screeds steel trowelled, on concrete</u></p>				
1	Average 40mm thick on floors with upper surface to falls	m ²	52	
2	Average 50mm thick on floors with upper surface to falls	m ²	47	
Carried to Collection				
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Plastering				
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Section No. 7
Bill No. 5
Plastering

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.

Carried to Collection

R

Section No. 7
 Bill No. 6
 Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
<p>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.</p>				
<u>Drawings:</u>				
<p>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.</p>				
<u>STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)</u>				
<u>uPVC Class 16 pipes</u>				
1		200mm pipes laid in and including trenches exceeding 2m not exceeding 3m deep	m	20
<u>Extra over uPVC Class 16 pipes for fittings</u>				
2		200mm Junction. (Labour Intensive)	No	4
<u>Class 100D concrete pipes</u>				
3		375mm Pipes laid in and including trenches exceeding 2m deep and not exceeding 3m deep. (Labour Intensive)	m	20
<u>Cast iron cover and frame</u>				
4		"Saint Gobain" or other approved 600 x 600mm Type 8B double seal manhole cover and frame	No	3
Carried to Collection			R	
<p>Section No. 7 Bill No. 6 Plumbing And Drainage</p>				

	Unit	Quantity	Rate	Amount
<u>Galvanised Mild Steel gratings, covers, etc</u>				
5	No	2		
<u>Galvainsed Mild Steel Cage</u>				
6	No	1		
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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.

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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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Section No. 8
 Bill No. 1
 Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets shall be deemed to include wire balloon gratings</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600</p> <p><u>uPVC pipes and fittings</u></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>"Polycop" polypropylene pipes</u></p> <p>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</p> <p>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</p>				
<p>Section No. 8 Bill No. 1 Plumbing And Drainage</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016</p> <p><u>Reducing fittings</u></p> <p>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</p> <p><u>Fixing of pipes</u></p> <p>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</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion in accordance with SANS (provision for disinfection elsewhere)</p> <p><u>General</u></p> <p>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.</p> <p><u>As-built drawings</u></p> <p>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)</p> <p><u>WATER SUPPLIES</u></p> <p><u>Taps, Valves, etc - Polished Brass</u></p>				
1	No	1		
<p><u>HDPE PE 100 PN 16 pipes to SANS 1315</u></p>				
2	m	360		
			Carried to Collection	R
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	Unit	Quantity	Rate	Amount
3	No	5		
4	No	5		
<u>Extra over HDPE PE 100 PN 16 pipes for brass compression fittings</u>				
5	No	20		
6	No	10		
7	No	6		
8	No	13		
<u>Sundries</u>				
9	No	1		
<u>Paper wrapping to pipes</u>				
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	No	15		
11	Item			
<u>BUDGETARY ALLOWANCES</u>				
<u>Municipal Connection</u>				
12	Prov Sum			
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WATER SUPPLIES

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SECTION NO. 9
STORMWATER DRAINAGE

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SECTION NO. 9

STORMWATER DRAINAGE

BILL NO. 1

PLUMBING AND DRAINAGE

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SUPPLEMENTARY PREAMBLES

Labour Intensive

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 Bill No. 1
 Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p><u>Working at Heights</u></p> <p>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.</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets shall be deemed to include wire balloon gratings</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600</p> <p><u>uPVC pipes and fittings</u></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>"Polycop" polypropylene pipes</u></p> <p>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</p> <p>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</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016</p>				
<p>Section No. 9 Bill No. 1 Plumbing And Drainage</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<u>Reducing fittings</u>				
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				
<u>Paper wrapping to pipes</u>				
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				
<u>Disinfection of water pipework</u>				
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.				
<u>As-built drawings</u>				
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)				
<u>STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)</u>				
<u>Class 100D concrete pipes</u>				
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
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Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<u>Sundries</u>				
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)	m ³	866		
<u>Testing</u>				
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			
<u>Fixing of pipes</u>				
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				
<u>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</u>				
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		
<u>Gratings, covers, etc</u>				
13				
500 x 800mm Fibre reinforced polymer grating and frame	No	4		
14				
Type 4A Fiberite composite circular manhole cover and frame	No	6		
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Plumbing And Drainage

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.

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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

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Section No. 9
 Bill No. 2
 External Works

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets shall be deemed to include wire balloon gratings</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600</p> <p><u>uPVC pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p> <p><u>"Polycop" polypropylene pipes</u></p> <p>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</p> <p>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</p>				
<p>Section No. 9 Bill No. 2 External Works</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016</p> <p><u>Reducing fittings</u></p> <p>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</p> <p><u>Fixing of pipes</u></p> <p>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</p> <p><u>Paper wrapping to pipes</u></p> <p>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</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion in accordance with SANS (provision for disinfection elsewhere)</p> <p><u>General</u></p> <p><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.</u></p> <p><u>As-built drawings</u></p> <p>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)</p>				
<p>Section No. 9 Bill No. 2 External Works</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<u>CONCRETE STORMWATER CHANNELS ETC</u>				
<u>Concrete stormwater channels of 25Mpa concrete</u>				
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		
<u>SEALING STRIPS, JOINT SEALANTS, TEC</u>				
<u>Two part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc. (Provisional)</u>				
3				
8 x 13mm In expansion joints between brickwork and concrete including raking out expansion joint filler as necessary.	m	573		
<u>THE FOLLOWING IN HEADWALLS</u>				
<u>Reno mattress or other approved gabion</u>				
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		
<u>Brick and concrete headwall</u>				
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	No	1		
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SECTION NO. 9

STORMWATER DRAINAGE

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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

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Section No. 10
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 Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p>				
<p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets shall be deemed to include wire balloon gratings</p>				
<p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals are to be sealed against adjacent surfaces with approved silicone - Class F20 HM, to EN 150 11600</p>				
<p><u>uPVC pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p>				
<p><u>"Polycop" polypropylene pipes</u></p> <p>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</p> <p>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</p>				
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	Unit	Quantity	Rate	Amount
<p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016</p> <p><u>Reducing fittings</u></p> <p>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</p> <p><u>Fixing of pipes</u></p> <p>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</p> <p><u>Paper wrapping to pipes</u></p> <p>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</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion in accordance with SANS (provision for disinfection elsewhere)</p> <p><u>General</u></p> <p>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.</p> <p><u>As-built drawings</u></p> <p>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)</p>				
<p>Section No. 10 Bill No. 1 Plumbing And Drainage</p>			<p>Carried to Collection</p>	<p>R</p>

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<p><u>SECTION NO.10</u> <u>RAINWATER HARVESTING TANKS</u> <u>BILL NO. 2</u> <u>EXTERNAL WORKS</u></p> <p><u>THE FOLLOWING IN RAINWATER HARVESTING TANKS</u> <u>Polyethylene water storage tanks</u></p>				
1				
<p>5000 Litres Jo-jo rainwater tank or similar approved, with 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</p> <p>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 applicable (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</p> <p>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2008</p>				
	No	10		
<p><u>Tank stand</u> <u>Excavation in earth not exceeding 2m deep</u></p>				
2	m ³	12		
3	m ³	37		
<p><u>Risk of collapse of excavations</u></p>				
4	m ²	124		
<p><u>Extra over all excavations for carting away</u></p>				
5	m ³	23		
Carried to Collection			R	
Section No. 10				
Bill No. 2				
External Works				

	Unit	Quantity	Rate	Amount
<u>Keeping excavations free of water</u>				
6	Item			
Keeping excavations free of all water other than subterranean water				
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 95% Mod AASHTO density</u>				
7	m ³	12		
Backfilling to trenches, holes, etc.,				
<u>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</u>				
8	m ³	17		
Under floors, steps, pavings, etc.				
<u>Compaction of ground surfaces</u>				
9	m ²	79		
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				
<u>SOIL POISONING</u>				
<u>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</u>				
10	m ²	49		
Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming				
11	m ²	191		
To bottoms and sides of trenches etc				
12	m ³	3		
Unreinforced concrete Class 25/19 in blinding				
13	m ³	8		
Reinforced concrete Class 25/19 in surface beds				
14	m ³	13		
Reinforced concrete Class 25/19 in strip footings				
15	m ²	49		
Finishing top surfaces of concrete smooth with a power float to surface beds, slabs, etc to falls				
16	Tonnes	6.00		
Steel reinforcement of various diameters to concrete foundations				
17	m ²	15		
Type 395 fabric reinforcement				
18	m ²	88		
One Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar				
Carried to Collection			R	
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Bill No. 2				
External Works				

Amount

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EXTERNAL WORKS
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SECTION NO.10

RAINWATER HARVESTING TANKS

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- 1 PLUMBING AND DRAINAGE
- 2 EXTERNAL WORKS

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SECTION NO.11
RETAINING WALLS

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO.11</u> <u>RETAINING WALLS</u> <u>BILL NO. 1</u> <u>EARTHWORKS</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Working at Heights</u></p> <p>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.</p>				
<p>Section No. 11 Bill No. 1 Earthworks</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site, and dumping at registered dumpsites.</p> <p><u>Bulking</u></p> <p>No allowance has been made for bulking</p> <p><u>Filling</u></p> <p>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</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with the relevant section of SANS</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 11 Bill No. 1 Earthworks</p>			R	

Amount

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EARTHWORKS
COLLECTION

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RETAINING WALLS
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Bill No.

1 EARTHWORKS

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SECTION SUMMARY

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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

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 Bill No. 1
 Provisional Sums

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Amount

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

1	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	450 000	00
2	Profit	Item		
3	Attendance	Item		

FABRIC COVERED CARPORTS

4	Provide the sum of R 170 000 (One Hundred and Seventy Thousand Rand) for connection fees for fabric covered carports.	Prov Sum	170 000	00
5	Profit	Item		
6	Attendance	Item		

LANDSCAPING

7	Provide the sum of R 200 000.00 (Two Hundred Thousand Rand) for landscaping.	Prov Sum	200 000	00
8	Profit	Item		
9	Attendance	Item		

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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

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