

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 1</u> <u>BILL NO. 1</u> <u>PRELIMINARIES</u></p> <p>NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project</p> <p>NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project</p> <p>The agreement is to be the General Conditions of Contract for Works of Civil Engineering Construction (2010) (Second Edition), published by the S.A Institution Of Civil Engineering.</p> <p>The Preliminaries are to be the Construction and management requirements for works contracts - Part 1: General engineering and construction works (SANS 1921-1: 2004 Edition 1) prepared by Standards South Africa and shall be deemed to be incorporated herein.</p> <p>Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary.</p> <p>This Bills of Quantities is priced in South African rands (ZAR) and all amounts that are carried forward and brought forward shall be in ZAR</p> <p>The applicable method of measurement for these Bills of Quantities is the Standard System of Measuring Building Work (seventh edition)</p> <p><u>Preambles For Trades</u> The Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p>Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the Model Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles</p> <p><u>Temporary works and plant</u> The contractor shall protect, uphold and maintain all public utilities and services and shall not interfere with their operation without the consent of the service authorities and the Project Manager. The contractor shall notify the Project Manager of any damage to such services and shall make good same at his own cost to the satisfaction of the service authorities</p> <p>Fuel, power and water for commissioning of mechanical and other specialised equipment shall also include for the cost of all necessary reticulation and connections thereto</p> <p>The contractor shall provide noise and dust control to the approval of the Project Manager</p> <p>The contractor shall maintain the access roads, paths, buildings, etc, adjacent to the construction area etc, during the period of the works in a clean and rubble free condition</p> <p><u>Identity of employees</u> All employees of the contractor and his sub contractors shall be identifiable at all times by means of ID cards, company name and logos imprinted on overalls. Any person found on site not complying with the abovementioned conditions the contractor shall be requested by Project Manager, to remove such person from the site</p>				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>Health and Safety</u> The contractor is to comply with all requirements of the Health and Safety Specification as specified in Section B of this Bill</p> <p><u>Housekeeping and compliance with Project Manager site rules</u> The contractor will be responsible for a high standard of housekeeping in his site establishment, delivery of materials and goods and removal of rubble, debris, etc, storage areas and construction working areas to the approval of the Project Manager</p> <p><u>Working Hours</u> Should the contractor wish to work outside normal working hours or at weekends in order to maintain his building programme, he shall notify and obtain the approval from the Project Manager before doing so. The cost of this overtime will be for the contractor's account</p> <p><u>SECTION A: General Conditions of Contract</u> <u>Fixed, Time and Value Related Items</u></p>				
1	Contractual requirements for fixed,time and value charge items	Item	1		R -
	<u>SECTION B: Specific Preliminaries</u>				
2	Allowance for NHBRC Enrolment	Item	1		R -
3	Allowance for Architectural fees - House plan submssion and obtaining plan approval from the required local authorities	Item	1		R -
4	Allowance for Structural Engineer Services - House plan submssion and obtaining plan approval from the required local authorities	Item	1		R -
5	Allowance for Foundation Slab/Raft Design and Inspection by Structural Engineer	Item	1		R -
6	Certification of construction milestones by Structural Engineer. Certification to include, Foundation Certificate, Roof Loading certificate, COC's and Issuing of B1 &D1 forms.	Item	1		R -
Carried to Sectional Summary					R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 1</u></p> <p><u>DEMOLITIONS</u></p> <p><u>PREAMBLES</u></p> <p>For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008</p> <p><u>View site</u></p> <p>Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained</p> <p><u>Explosives</u></p> <p>No explosives whatsoever may be used for demolition purposes unless otherwise stated</p> <p><u>General</u></p> <p>Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site</p> <p><u>Demolishing and removing</u></p> <p>Demolish 40m2 Single storey building comprising of reinforced concrete footings, unreinforced concrete surface bed and with floor tiles, 230mm plastered external walls, 115mm plastered internal walls including carting away all excess material off site</p>	No	1		R -
Carried to Sectional Summary					R -

BILL OF QUANTITIES
JEFFREYS BAY
CSI UNIT



ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p>SECTION NO. 2</p> <p>BILL NO. 2</p> <p>EARTHWORKS</p> <p>PREAMBLES</p> <p>For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008</p> <p>SUPPLEMENTARY PREAMBLES</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>The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock"</p> <p>Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"</p> <p>A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p>"earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"</p> <p><u>Subterranean water</u></p> <p>The water table is expected to vary between approximately ?m and ?m below natural ground level. The removal of subterranean water is given separately</p> <p><u>Excavation for working space in rock</u></p> <p>Notwithstanding clause 11, page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p><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 SABS 1200D</p> <p>SITE CLEARANCE, ETC.</p> <p><u>Site clearance</u></p>				
1	Stripping average 150mm thick layer of top soil and stockpiling on site	m2	92	R	-
	Excavation in earth not exceeding 2m deep:				
2	Trenches	m3	10	R	-
	Risk of collapse of excavations:				
3	Sides of trench and hole excavations not exceeding 1,5m deep	m2	33	R	-
	Keeping excavations free of water:				
4	Keeping excavations free of all water other than subterranean water (per location)	Item	1	R	-
	Earth filling obtained from the excavations compacted to 98% Mod AASHTO density:				
5	Under floors, steps, pavings, etc.	m3	5	R	-
	Compaction of surfaces:				
6	Compaction of ground surfaces under pavings etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	23	R	-
	Prescribed density tests on filling:				
7	"Modified AASHTO Density" test	No	2	R	-
	WEED KILLERS, INSECTICIDES, ETC				
	Soil insecticide in accordance with SANS 5859				
8	Under floors, pavings, etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m2	43	R	-
9	Bottoms of foundation trenches	m2	61	R	-
Carried to Sectional Summary					R
					-

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT	
	SECTION NO. 2 BILL NO. 3 CONCRETE FORMWORK AND REINFORCING PREAMBLES For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 SUPPLEMENTARY PREAMBLES Cost of tests The costs of making, storing and testing of concrete test cubes as required under clause 7, "Tests" of SABS 1200 G, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the 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) Breeze concrete Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1:12); the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated Lightweight concrete Lightweight concrete shall have a density of 600kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm Formwork Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks" UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES 15MPa/19mm Concrete: Concrete infill to all junctions of hollow maxi bricks - every 2 courses 25MPa/19mm concrete: Apron REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES 25MPa/19mm concrete: Strip footings Surface beds TEST BLOCKS: Making and testing 150 x 150 x 150mm concrete strength test cube. CONCRETE SUNDRIES Finishing top surfaces of concrete smooth with a power float: Surface beds, slabs, etc. ROUGH FORMWORK (DEGREE OF ACCURACY II) Rough formwork to sides: Edges not exceeding 300mm high REINFORCEMENT Mild steel reinforcement to structural concrete work: Various diameter bars as per the engineer's specifications Fabric reinforcement: Type 193 fabric reinforcement in concrete surface beds etc. Carried to Sectional Summary					
1		m3	1		R -	
2		m3	3		R -	
3		m3	5		R -	
4		m3	3		R -	
5		No	3		R -	
6		m2	37		R -	
6		m	35		R -	
7		t	0,4		R -	
8		m2	37		R -	
					R -	

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 4</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u> For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>BRICKWORK</u> <u>Sizes in descriptions</u> Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Hollow walls</u> Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p> <p><u>Bagged and sealed walls</u> Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Face bricks</u> Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u> Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BLOCKWORK</u> <u>Concrete masonry units</u> Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7MPa</p> <p><u>Wall ties for blockwork</u> Wall ties shall be polypropylene ties complying with BS 7637. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other</p> <p><u>Blockwork</u> Blockwork shall comply with SANS 10145 "Concrete Masonry Construction"</p> <p>Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole</p> <p><u>Standard complementary blocks</u> Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary</p> <p><u>DECORATIVE BLOCKS</u> Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour</p> <p><u>BRICKWORK</u></p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p> <p><u>Brickwork of maxi-brick on class II mortar</u></p>				
1	140mm walls	m2	12	R	-

[illegible]

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u> <u>BILL NO. 5</u> <u>WATERPROOFING</u> <u>PREAMBLES</u> For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 <u>SUPPLEMENTARY PREAMBLES</u> <u>Waterproofing</u> Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs <u>DAMPPROOFING OF WALLS AND FLOORS</u> <u>One layer of 375 micron embossed polyethylene damp proof course:</u>				
1	In walls	m2	5	R	-
2	Under sills etc	m2	4	R	-
3	<u>One layer of 250 micron waterproof sheeting sealed at laps Pressure Sensitive Tape:</u> Under surface beds	m2	43	R	-
4	<u>Cementitious waterproofing system (suitable for tiling) comprising primer coat plasticised modified acrylic (PMA) (consisting of 5l PMA, 5 litres water and 16,5kg cement one layer pre-cut polypropylene fabric fully saturated in PMA slurry and two full coats PMA slurry thickness of 2 to 3mm</u> On shower walls	m2	5	R	-
5	On shower floors	m2	1	R	-
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u> <u>BILL NO. 6</u> <u>ROOF COVERINGS</u> <u>PREAMBLES</u> For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 <u>TILES</u> <u>420 x 332mm "Marley" or equal approved standard double roman concrete roof tile in approved colour, concrete tiles fixed with non corrosive tile clips to and including 38 x 38mm sawn softwood battens at minimum 320mm centres with polyethylene tile underlay between battens and rafters, battens fixed to prefabricated trusses at maximum 760mm centres:</u>				
1	Roof covering with pitch not exceeding 25 degrees including prefabricated roof trusses (battens, rafters, purlins, posts etc)	m2	43		R -
	<u>FIBRE-CEMENT ACCESSORIES</u> <u>6mm Thick "Nutec" or equal approved fascia boards, medium density plain fibre cement fasci fixed with fittings and fixing accessories, fixed in accordance with the manufacturers instructions:</u>				
2	12 x 250mm Wide fascia and barge boards fixed to truss ends	m	14		R -
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 7 CARPENTRY AND JOINERY PREAMBLES For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 SUPPLEMENTARY PREAMBLES Fixing Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere Joinery Descriptions of frames shall be deemed to include frames, transomes, rails, etc Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts Decorative thermosetting plastic laminate covering Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish DOORS Wrought meranti doors suitable for painting hung to steel frame (elsewhere): 1 44mm Framed, ledged, braced and battened door size 813 x 2 032mm high including weather bar 2 Hollow core flush doors with commercial veneer, hung to steel frames (elsewhere) 40mm Door size 813 x 2 032mm high CUPBOARDS The following cupboard fittings have been measured as complete units i.e. the components of the units have not been separately measured. The description, therefore, of such units shall be deemed to include for all components, assembling, housing, notching, glueing, blocking, bolting, planting on and screwing with countersunk screws, edge strips, white melamine finish to all, glass, ironmongery to be 'Blum' or similar approved, metalwork, paint or varnish finishes, etc. Prices are to include for all necessary filler pieces against walls etc. Cupboards consist of 32mm "Post-form" or equal approved work top with white laminate finish and 2mm impact edging, 16mm white carcasses, sides, bottom, shelf, divisions and drawer components with impact edging on all exposed edges including white masonite wall backing and type 'Blum' (or equal approved) hinges to doors with one pull handle per door and drawer and drawer slides complete, with plastic legs and coverstrip. Melamine Cupboards: 3 Sink cupboard 1200mm x 600mm wide x 900mm high overall, comprising two equal door leaves and one shelf <p style="text-align: right;">Carried to Sectional Summary</p>	No	2	R	-
		No	3	R	-
		No	1	R	-
				R	-

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u> <u>BILL NO. 8</u> <u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u> <u>PREAMBLES</u> For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 <u>SUPPLEMENTARY PREAMBLES</u> <u>Fixing</u> Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere <u>Ceilings</u> Unless otherwise described ceilings shall be deemed to be horizontal <u>Bulkheads</u> 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 Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 900mm. Where these dimensions are more than 900mm such portions of ceilings have been included in the appropriate general items of ceilings Unless otherwise described bulkheads shall be deemed to be horizontal along the length <u>Steel components</u> All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121 <u>NAILED UP AND SCREW UP CEILINGS</u> <u>SUPPLEMENTARY PREAMBLES</u> <u>Openings</u> Prices for openings for light fittings, ventilation grilles, air-conditioning diffusers, etc. are to include for any necessary additional support, trimming around, etc <u>6.4mm "Rhino board" or equal approved gypsum plasterboard with 50mm cover strips nailed over joints/ with pcv H- strips/ timber strips on 38x38mm sawn softwood branderings at 450mm centres</u>				
1	Ceilings fixed to and including 38 x 38mm sawn softwood branderings at 450mm centres	m2	35	R	-
2	Extra over ceiling for 610 x 610mm trap door	No	1	R	-
3	<u>Rhino or equal approved gypsum plasterboard cornices:</u> 75mm Coved cornices	m	50	R	-
4	<u>INSULATION</u> <u>Isotherm or equal approved thermal roof insulation closely fitted and laid on top of branderings between roof timbers:</u> 135 Thick fixed over straining wires secured over purlins and fitted on 38x38mm SA pine branderings at 450mm centres with galvanised hoop iron	m2	35	R	-
	Carried to Sectional Summary			R	-

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 9 IRONMONGERY PREAMBLES For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 SUPPLEMENTARY PREAMBLES Proprietary items Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures, etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration Finishes to ironmongery Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS - Satin bronze lacquered CH - Chromium plated SC - Satin chromium plated SE - Silver enamelled GE - Grey enamelled AN - Anodised natural AS - Anodised silver AB - Anodised bronze AG - Anodised gold ABL - Anodised black PB - Polished brass PL - Polished and lacquered PT - Epoxy coated SD - Sanded SUPPLY AND FIX THE FOLLOWING IRONMONGERY HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC Union' or equal approved locks: 1 3 Lever lockset complete with handles 2 2 Lever lockset complete with handles Union' or equal approved hinges: 3 100 x 75mm Stainless steel ball bearing butt hinges (code 8352-100SS)				
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 10 METALWORK PREAMBLES For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 SUPPLEMENTARY PREAMBLES PRESSED STEEL DOORS, FRAMES, ETC Door frames Frames shall project not less than 20mm into floor finish. Except where described as galvanized, frames shall be primed as specified before leaving the factory. Frames are to jambs and heads of openings. Frames for single doors shall be provided with two 100mm steel butt hinges and an adjustable striking plate for a mortice lock and frames for double doors shall be provided with four 100mm steel butt hinges. Butt hinges shall be steel butts with loose pins, welded to frames. Where necessary mortar caps shall be welded to frames and back plates shall be welded on behind tappings for screws STEEL WINDOWS, DOORS, ETC Windows, doors, etc All fittings to windows, doors, etc shall be chromium plated. Fixed lights and opening sashes shall be in single squares. Windows etc of single unit construction shall have weather bars at transoms above opening sashes Composite windows not of single piece construction shall be coupled with standard coupling mullions and transoms that correspond with the window section used Kicking plates and panels shall be 1,6mm metal plate fixed with standard metal glazing beads mitred at angles and countersunk screwed on at not exceeding 300mm centres with self-tapping screws Except where described as galvanized, windows, doors, burglar bars, etc shall be primed as specified before leaving the factory GALVANISED STEEL GATES, SCREENS, ETC. GALVANISED PRESSED STEEL DOOR FRAMES 1,2mm Rebated frames suitable for 140mm walls: 1 Frame for door size 813 x 2 032mm high 1,2mm Rebated frames suitable for 90mm walls: 2 Frame for door size 813 x 2 032mm high GALVANISED STEEL WINDOWS, DOORS, ETC Standard residential windows with fixed panes and top or side hung opening casements: 3 Window 03 - 600 x 600mm 4 Window 02 - 900 x 900mm 5 Window 01 - 900 x 1200mm				
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u> <u>BILL NO. 11</u> <u>PLASTERING</u> <u>PREAMBLES</u> For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 <u>PREPARATORY WORK</u> Surfaces shall be clean and free of oil and thoroughly wetted directly before any plastering or other in situ finishes are commenced. Concrete surfaces shall be slushed with a mixture of one part cement and one part coarse sand or otherwise treated to form a proper key. Preparatory coats shall be thoroughly scored and roughened to form a proper key <u>FINISH</u> All coats of plastering shall be executed in one operation without any blemishes <u>SCREEDS</u> Screeds shall be composed of one part cement and four parts sand <u>THICKNESS OF PLASTER</u> All plaster, other than skim plaster, shall be not less than 10mm and not more than 20mm thick <u>SCREEDS</u> <u>1:4 Cement screed to floors etc finished off with a steel or wood float including Plasterkey</u>				
1	30 mm Thick on floors and landings	m2	35	R	-
	<u>INTERNAL PLASTER</u> <u>Cement plaster steel trowelled on brickwork:</u>				
2	On walls	m2	101	R	-
3	On narrow widths	m2	2	R	-
	<u>EXTERNAL PLASTER</u> <u>Cement plaster on brickwork:</u>				
4	On walls	m2	72	R	-
5	On narrow widths	m2	2	R	-
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u> <u>BILL NO. 12</u> <u>TILING</u> <u>PREAMBLES</u> For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 <u>SUPPLEMENTARY PREAMBLES</u> <u>Fixing</u> Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors, etc shall be deemed to include 1:3 plaster bedding Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the "Tal Professional" range of products as recommended by the manufacturer of the tiles <u>WALL AND FLOOR TILING</u> <u>Allow the nett prime cost of R100.00 (One hundred rand) per square metre for 500 x 500mm tiles delivered to site and add for waste, labour, fixing with approved adhesive, grouting, pointing with continuous joints in both directions</u>				
1	On walls	m2	5	R	-
2	On walls in isolated panels, splashbacks, etc	m2	2	R	-
3	Aluminium strip	m	3	R	-
4	On floors	m2	35	R	-
5	Skirting 100mm high	m	26	R	-
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p>SECTION NO. 2</p> <p>BILL NO. 13</p> <p>PLUMBING AND DRAINAGE</p> <p>PREAMBLES For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008</p> <p>SUPPLEMENTARY PREAMBLES</p> <p>Wire gratings Descriptions of gutter outlets, etc shall be deemed to include wire balloon gratings</p> <p>Stormwater channels Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site</p> <p>French drains Descriptions of french drains shall be deemed to include excavation, stone filling graded from 300mm diameter at bottom to 75mm diameter at top, "2" geofabric filter blanket over stone, 300mm earthfilling over and disposal of surplus material on site</p> <p>Stainless steel basins, sinks, wash troughs, urinals, etc Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone uPVC pipes and fittings Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings uPVC pressure pipes and fittings Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints</p> <p>High density polyethylene (HDPE) pipes and fittings Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings</p> <p>"Polycop" polypropylene pipes Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" compression fittings Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>Copper pipes Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p> <p>Reducing fittings Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained</p> <p>Fixing of pipes Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p>Paper wrapping to pipes Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p>Disinfection of water pipework Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)</p> <p>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with 7% overlaps Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including mastic, tape, "Layflat" sheeting, securing of same, etc Prices for wrapping of pipes shall include for all work as described to couplings in the length</p>				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p>Laying, backfilling, bedding, etc of pipes</p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</p> <p>Where no manufacturers' instructions exist, pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE : Stormwater drainage</p> <p>Pipe trenches, etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200DB : Earthworks (Pipe trenches)</p> <p>Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB : Bedding (Pipes)</p> <p>Unless otherwise described, bedding of rigid pipes shall be Class B bedding</p> <p>General</p> <p>Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc are given separately)</p> <p>Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends</p> <p>Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 7% Mod AASHTO density and disposal of surplus material on site</p> <p>Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)</p> <p>Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)</p> <p>As-built drawings</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>RAINWATER DISPOSAL</p> <p>Rainwater Gutters and Downpipes:</p> <p>Marley Vynadeep® uPVC or equal approved:</p>				
1	150mm Eaves gutters	m	14	R	-
2	100mm Diameter rainwater pipe fixed to wall with brackets, including sealing joints	m	6	R	-
3	Extra over eaves gutter for stopped end	No	4	R	-
4	Extra over eaves gutter for outlet for 100mm diameter rainwater pipe	No	4	R	-
66	Extra over eaves gutter for 90 degrees angles	No	0	R	-
5	Extra over rainwater pipe for shoe	No	2	R	-
6	Extra over rainwater pipe for bend	No	2	R	-
	<p>PLUMBING AND DRAINAGE</p> <p>Provisional Sum for plumbing and drainage reticulation for single storey units - this includes excavations, connections, laying pipes, junctions, traps, sanitaryware and fittings etc and labour</p>				
7		sum	1	R	-
	<p>KWIKOT® or approved integrated solar geyser:</p> <p>200L Geyser installed complete</p>	No	1	R	-
9	Connecting geyser to water points (pair)	Item	1	R	-
	<p>CONNECTIONS:</p> <p>Allow for the connection of new pipes to existing water supply network including all fittings and making good of walls, floors, etc (per location)</p> <p>Allow for 20mm HDPE water connection to municipal network</p>	No m	1 35	R R	- -
	<p>SUNDRIES</p> <p>Full survey of plumbing installation and provision of a plumbing certificate of compliance</p>	Item	1	R	-
Carried to Sectional Summary					R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 14 ELECTRICAL WORK SUPPLEMENTARY PREAMBLES <u>Specifications, drawings, etc:</u> Tenderers are referred to the specification accompanying these bills of quantities for the electrical work, for the full descriptions of the following items which have been priced in conjunction with the said specification Where there is conflict between the Model Preambles and the Specifications, the Specifications will take preference <u>Distribution boards, etc:</u> Distribution boards etc are to include for busbars,jumpers, neutral bars, internal wiring and connections,circuit identification markers, control gear labels, circuit legend cards and working drawings <u>Switches, socket outlets, etc:</u> Switches, socket outlets, etc are to include for screwing to outlet boxes, connecting up and cover plates <u>Light fittings:</u> Light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described <u>General Requirements:</u> The Supplementary Preambles reflected elsewhere in these Bills of Quantities shall apply equally to this Trade. All material, standards and workmanship on this service shall comply in all respects to the departments standards and the General Technical Specification for Electrical Installations for the Provincial Administration for Electrical Installations for the Provincial Administration Eastern Cape. <u>Works in existing buildings:</u> The Contractors is to note that works are generally carried out in existing buildings <u>ELECTRICAL</u> Provisional sum for the supply and installation of electrical components (1st, 2nd and final fix) including wiring, light switches, plugs, labour etc. DISTRIBUTION BOARDS with CBI BREAKERS 1 Distribution Board, 1 x 6 way powder coated white flush mounted 2 Prepaid Metering Device SUNDRIES 17 Full survey of internal electrical installation and provision of an electrical certificate of compliance				
		item	1		R -
		No	1		R -
		No	1		R -
		Item	1		R -
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u> <u>BILL NO. 15</u> <u>GLAZING</u> <u>PREAMBLES</u> For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 <u>SUPPLEMENTARY PREAMBLES</u> <u>Float glass</u> The term "float glass" is used for monolithic annealed glass <u>Laminated glass</u> Laminated glass to have polyvinyl butyral (PVB) interlayer(s) <u>GLAZING TO STEEL WITH PUTTY</u> <u>4mm Clear float glass:</u> 1 Panes not exceeding 0,1 m2 2 Panes exceeding 0,5m2 and not exceeding 2m2 <u>4mm Obscure glass:</u> 3 Panes exceeding 0,1m2 and not exceeding 0,5m2 <u>Shower Doors</u> 4 900 x 900mm Square Showere tray including enclosure and shower trap				
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 16 PAINTWORK PREAMBLES For preambles refer to "Model Preambles for Trades" published and issued by the Association of South African Quantity Surveyors, 2008 SUPPLEMENTARY PREAMBLES PREPARATORY WORK TO EXISTING WORK PAINT SPECIFICATIONS All painting shall be done in accordance with "?" specifications unless otherwise described COLOURS Unless otherwise described all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SANS 1091 All paint shall be SABS Approved paint applied in accordance with manufacturer's instructions: PAINTWORK, ETC TO NEW WORK ON FLOATED PLASTER <u>Prepare surfaces and remove all loose material, apply one coat alkali resistant plaster primer and two coats acrylic emulsion paint:</u> 1 On interior walls 2 On external walls ON PLASTER BOARD <u>Prepare surfaces and remove all loose material, apply one coat primer and two coats alkali resistant paint:</u> 3 On ceilings and cornices ON FIBRE CEMENT, ETC. 4 On fascias and bargeboards ON WOOD <u>Stop, fill, sand down and prepare wood surfaces and apply one undercoat and two coats polyurethane enamel varnish:</u> 5 On interior and exterior doors ON METAL <u>Apply one undercoat and two coats enamel paint(red-oxide):</u> 6 On window frames 7 On door frames				
	Carried to Sectional Summary				R -

ITEM	DESCRIPTION	AMOUNT	
	<u>SECTIONAL SUMMARY</u>		
1	DEMOLITIONS	R	-
2	EARTHWORKS	R	-
3	CONCRETE, FORMWORK & REINFORCING	R	-
4	MASONRY	R	-
5	WATERPROOFING	R	-
6	ROOF COVERINGS	R	-
7	CARPENTRY AND JOINERY	R	-
8	CEILINGS, PARTITIONS AND ACCESS FLOORING	R	-
10	IRONMONGERY	R	-
11	METALWORK	R	-
12	PLASTERING	R	-
13	TILING	R	-
14	PLUMBING AND DRAINAGE	R	-
15	ELECTRICAL	R	-
16	GLAZING	R	-
17	PAINTWORK	R	-
	Carried to Final Summary	R	-

BILL OF QUANTITIES
JEFFREYS BAY
CSI UNIT



ITEM	DESCRIPTION	AMOUNT	
	<u>FINAL SUMMARY</u>		
1	PRELIMINARIES	R	-
2	BUILDERS WORK	R	-
	SUBTOTAL	R	-
	ESTIMATED CONTRACT VALUE	R	-