EMALAHLENI MUNICIPALITY THE CONSTRUCTION OF DDX SPORTSFIELD SUMMARY OF SECTIONS

SECTION NO.	DESCRIPTION	AMOUNT
1	PRELIMINARY AND GENERAL	R -
2	SPORT FIELDS	R -
3	IRRIGATION SYSTEM	Rate Only
4	FENCING & GATES	R -
5	STRUCTURAL WORKS	R -
6	BUILDING WORKS	R -
7	ELECTRICAL WORKS	R -
8	CIVIL SERVICES	R -
9	ENTRANCE ROAD & PARKING	Rate Only
	SUB TOTAL 1	R -
	CONTINGENCIES 10% OF SUB TOTAL 1	R -
	SUB TOTAL 2	R -
	ADD 15% VAT	R -
	PROJECT TOTAL	R -

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
ı		SECTION 1: PRELIMINARY AND GENERAL				
		As specified in SANS 1200A, Project Specifications and Special Conditions of Contract.				
1,1		FIXED CHARGE ITEMS				
		Establish facilities on Site for Contractor:-				
1.1.1		Contractual Requirements Including insurances.	Sum	1		R
1.1.2		Stores, Workshops, Offices, Toilets, equipment, etc	Sum	1		R
1.1.3		Water and electricity for construction purposes	Sum	1		R
1.1.4		Supply and erect contract name board on iron pipe columns with stays as per drawings	Sum	1		R
1.1.5		Traffic signs, danger tape and hazard lights for safe construction in existing road reserves	Sum	1		R
1.1.6		Removal of site establishment	Sum	1		R
1,2		TIME RELATED ITEMS				
		Operate and Maintain Facilities on Site for contractor:-				
1.2.1		Workshops, Offices, Toilets, equipment etc	Sum	1		R
1.2.2		Water and electricity for construction purposes, including watering of soil heaps and ground stripped from vegetation to prevent dust blowing	Sum	1		R
1.2.3		Setting out of works	Sum	1		R
1.2.4		Supervision of construction	Sum	1		R
1.2.5		Accommodation of traffic and maintenance of traffic signs and hazard lights	Sum	1		R
1.2.6		Compliance with all requirements of the Department of Environmental Affairs & Development Planning	Sum	1		R
.2.7		Protection of trees identified by the environmental consultant for preservation	Sum	1		R
1.2.8		Compliance with Occupational Health and Safety act 1993 for duration of contract	Sum	1		R
1.2.9		Marking and protection of survey pegs	Sum	1		R
1.2.10		Determination and protection of existing services	Sum	1		R
1.2.11		Testing of sewer, water, road layers and premix	Sum	1		R
1.2.12		Provide as build information by an independent professional surveyor in excel format for all manholes, valves and hydrants with pipe gradients, cover and invert levels and compare with design data	Sum	1		R
1.2.13		Provide for laboratory soil tests as requested by the Engineer	Prov Sum	1	5 000,00	
1.2.14		Employment of CLO for duration of contract @ R 4000/month	Prov Sum	1	30 000,00	
.2.15		Mark up on items 1.2.13and1.2.14	%	10%	35 000,00	
OTAL OF SECTION 1 CARRIED FORWARD TO SUMMARY						

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT	
2		SECTION 2 : SPORT FIELDS					
2,1 2.1.1	SANS 1200D 8.3.1.2	EARTHWORKS Removal of topsoil to a nominal depth of 150mm, stockpiling and maintaining on designated site within the premises.	m³	2250		R	-
2.1.2	8.3.2 (a)	Cut to fill in all material in 150mm layers and compact to 90% MOD-AASHTO density in sport field fill	m³	15		R	-
2.1.3	8.3.2 (a)	Cut to fill in all material in 150mm layers and compact to 90% MODAASHTO density in storm water diversion berm	m³	100		R	-
2.1.4		Cut to spoil of unsuitable hard excavation and dispose at designated spoil site located by the contractor.	m³	15		R	-
2.1.5	8.3.2.(b)	Extra-over for Hard rock excavation in item no. 2.1.4.	m³	15		R	-
2.1.6	8.3.4	Import G9 fill material from commercial sources and compact in 150mm layers to 90% MODAASHTO density in sport field earthworks	m³	5366		R	-
2,2		MEGAFLO SUBSOIL DRAINAGE SYSTEM					
	SANS 1200 DB	Earthworks (Pipe Trenches)					
2.2.1	8.3.2	Restricted Excavation in all materials for trenches 150 mm wide by 350mm deep, backfill, compact and dispose of surplus material.	m	1500		R	-
	SANS 1200 LB	Bedding of the Megaflo					
2.2.2	8.2.2.3	Supply only of bedding by Importation of washed coarse river sand obtained from commercial source.	m³	55		R	-
2.2.3		Supply, handle, lay and bed Megaflo 300mm Subsoil Drains complete to falls	m	1500		R	-
2.2.4		Megaflow Outlet Structure complete including all formwork, reinforcement and excavation as per detail	No	4		R	-
2,3	SANS 1200D	TOPSOIL & GRASSING					
2.3.1	8.3.4	Import Washed River Sand material from commercial source, place, grade and level 25mm thick layer in sport field.	m³	360		R	-
2.3.2	8.3.10	Topsoiling: Excavate from stockpile in item 2.2.1, select, haul ,place, grade, level and lightly compact a 100mm thick on sport field and track area.	m³	1430		R	-
2.3.3	8.3.11	Supply and establishment of Kikuyu grass on sport field incl. fertilizer as per specification	m²	10166		R	-
2.3.4	8.3.11	Supply and establishment of Burmuda (Kweek) grass on athletics track incl. fertilizer as per specification	m²	4117		R	-
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMC	DUNT
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2,4	SANS 1200MK	PRECAST KERBS ON STRAIGHT					
		Supply, lay, grout and backfill including softboard expansion joints and sealant at 20m intervals; 1,0m units to straight and radii exceeding 12m:					
2.4.1		Fig. 12 Edging (flush with grass surface)	m	853		R	-
2,5		EROSION PROTECTION					
	SABS 1200 DK	GROUTED STONE PITCHING (LIGHT)					
2.5.1	8.2.5	The supply and installation of grouted stone pitching with min 200mm thickness, min 110mm stone and Class 15 concrete	m²	75		R	-
2,6		GOAL POSTS					
2.6.1		Supply and install complete combination soccer goal / Rugby posts from galvanised steel bedded in concrete	No	2		R	-
TOTAL OF	SECTION 2 C	ARRIED FORWARD TO SUMMARY				R	-

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
3		SECTION 3: IRRIGATION SYSTEM				
3,1	SABS 1200 DB	EXCAVATION				
	8.3.2 (a)	Excavation in all materials for trenches 450 mm wide, backfill, compact and dispose of surplus material.				
3.1.1		0,51 - 1,00 m deep	m	140		Rate only
		E.O item 3.1. for excavations in:				
3.1.2	8.3.2 (b)	Hard Rock	m³	14		Rate only
3.1.3	8.3.2 (c)	Excavate and dispose of unsuitable material from trench bottom	m³	3,5		Rate only
3,2		CONNECTION TO EXISTING SERVICES				
3.2.1		Locate, excavate and expose existing water main to allow for connection of the new supply	No	1		Rate only
3,3	8.3.5	EXISTING SERVICES THAT INTERSECT OR ADJOIN A PIPE TRENCH				
	8.3.5 (a)	Services that intersect a trench at an anglle of >45°.				
3.3.1		Electrical / Telephone Conductors	No	1		Rate only
3.3.2		Water / sewer conductor up to 160mmø	No	1		Rate only
3.3.3		Electrical and/or Telephone post within 1,2m from the centre of service	No	1		Rate only
3,4	8.3.6	FINISHING				
3.4.1		Reinstate gravel road surface complete with all courses including accomodation of traffic	m²	10		Rate only
3,5	SANS 1200 LB	BEDDING (PVCu Pipes) Pipes to be laid on a Class C bedding				
	8.2.1	Provision of bedding from trench excavation within 1km.				
3.5.1		Selected Granular Material	m³	7		Rate only
3.5.2		Select Fill Material	m³	19		Rate only
3,6	SABS 1200 L	MEDIUM PRESSURE PIPELINES				
		PVCu Class 9 Pipes				
	8.2.1	Supply, handle, lay and bed (Class C bedding), Z-lock joints as specified, test and disinfect pipes for :				
3.6.1		63 mm dia	m	140		Rate only
3,7	8.2.2	SPECIALS AND FITTINGS				
		Extra over Item 3.6 for supply, lay, handle, bed (Class C bedding), of specials & fittings, including cutting of pipes to lengths where required, test and disinfect for PVCu Class 9 pipes:				
3.7.1		Bends for PVCu pipes				
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
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		PVCu Manufactured bends to the manufacturers specifications - Class 16 with one end plain and the other with mechanical seal in PVCu pipeline in degrees ranging:				
3.7.1.1		63 mm x 90°	No	3		Rate only
3.7.1.2		63 mm x 90° to 50 mm Female riser	No	1		Rate only
3.7.2		T-pieces for PVCu pipes				
3.7.2.1		63 x 50 mm dia Female riser Tee	No	3		Rate only
3,8		IRRIGATION VALVES				
		Valves: Supply and install Irrigation Hydrant type valves, including excavation and backfilling if required, GMS riser extention denso wrapped, quick coupling connector and all other required specials and fittings required to complete the installation as per detail drawing no Rate to include the supply and stallation of the precast concrete valve box.				
3.8.1		50 mm dia (on PVCu pipe)	No	4		Rate only
3,9		WATER METER				
		Supply and install Elster Kent domestic Water Meter				
3.9.1		50 mm dia - PN10	No	1		Rate only
3,10		RESERVOIRS & INLETS AND OUTLETS				
3.10.1	8.2.11	Supply and install 150kl galvanised zinc reservoir complete to manufacturer's specification and conditions of guarantee. The installation is to be 100% water proof with 1mm corrugated galvanised sheeting and 950g/sqm black pvc lining. Rate to Include 50 NB Inlet, 65 NB Outlet, 100 NB Scour and 100 NB Overflow GMS flanged pipework connections and GMS Cat Ladder	Prov Sum	1	220 000,00	Rate only
3.10.2		Concrete base for reservoir complete as per reservoir supplier specification.	Prov Sum	1	70 000,00	Rate only
3.10.3		Construct new inlet valve chamber complete as per detail drawing no, including excavation and backfilling. The rate to include 50mm ø GMS pipework and fittings from 63mm ø PVCu main to reservoir inlet Flange, including 50mm ø isolation valve, Vosa equilibrium 50 mm ball float valve and all required brackets and fittings to secure pipe work.	Prov Sum	1	30 000,00	Rate only
3.10.4		Construct new outlet valve chamber complete as per detail drawing no, including excavation and backfilling. Including 65mm ø isolation valve, 65 mm ø GMS outlet pipework and all fittings for connection to pump pipework.	Prov Sum	1	30 000,00	Rate only
3.10.5		Construct new scour & overflow valve chamber complete as per detail drawing no, including excavation and backfilling. Including 100mm ø isolation valve, 100 mm ø GMS outlet pipework and all fittings for connection to overflow pipework.	Sum	1	30 000,00	Rate only
3.10.6		Supply and install complete KSB Eta 040-200 pump with 3.0 kW motor including 'no flow' protection, motor control, all pipework, fittings and connections.	Sum	2	35 000,00	Rate only
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT		
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3.10.7		Supply, construct and install complete pump room as per detail drawing: Including excavations, backfilling, concrete works, building works and electrical installions.	Prov Sum	1	75 000,00	Rate only		
3.10.8		Mark - up on items 3.10.1 - 3.10.7	%	R 525 000,00		Rate Only		
3,11		TRAVELING IRRIGATORS Supply and install "Rainmaker" self-propelled traveling sprinkler unit complete as per manufacturers specification. Rate to include 100m x 50mm Ø Lay-flat hose and couplings complete.						
3.11.1		"Greenkeeper 200" Sprinkler unit with a application rate of 16m³/h @ 3 bar pressure.	No	1		Rate Only		
3,12		ANCILLARIES						
3.12.1	8.2.11	Anchor/thrust blocks according to details	m³	1		Rate Only		
TOTAL OF	SECTION 3 C	CARRIED FORWARD TO SUMMARY				Rate Only		

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT	
4		SECTION 4 : FENCING & GATES					
4,1	SANS 1200C	SITE CLEARANCE					
4.1.1	8.2.5	Take down existing dilapidated Palisade fencing.	m	50		R	-
4.1.2	8.2.7	Dismantle and remove dilapidated sections of the existing vibracrete boundary wall. Rate to include haulage to designated spoil site located by the contractor.	m²	85		R	-
4,2		FENCING					
4.2.1		Replace sections Palisade fencing complete with matching quality as per the existing. Rate to include excavation for posts and concrete work to install the post.	m	50		R	-
4.2.2		Replace sections of dismantled vibracrete wall complete. Rate to include excavation for posts and concrete work to install the post.	m²	85		R	-
4.2.3		Supply and install complete "Clearvu" or simular approved 2.1m high galvanised steel fencing with 85mm width posts at 3.4m intervals as per manufactured specification. The Panel aperture size shall be 76.2mm x 12.7mm. Wire ø will be 3mm. The rate to include excavation for posts and all concrete work required	m	110		R	-
4,3	SABS 1200GA	CONCRETE					
	8.4.3	Supply, mixing, placing, curing and testing of concrete:					
4.3.1		Concrete 25MPa/19mm in foundation	m³	2		R	-
4,4		FACILITY ACCESS GATES					
4.4.1		Supply and install complete 5m vehicle access sliding steel palisade gate see drawings	No	2		R	-
4.4.2		Supply and install complete 1.2m pedestrian access swing steel palisade gate see drawings	No	2		R	-
TOTAL OF	SECTION 4 C	ARRIED FORWARD TO SUMMARY				R -	_

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT	
5		SECTION 5: STRUCTURAL WORKS					
5,1	SABS 1200 C	SITE CLEARANCE					
		CLEAR SITE					
5.1.1	8.2.1	Clear site as directed, incl. spoiling material within 1 km freehaul	m²	675		R	-
5.1.2	8.2.10	Remove topsoil to nominal depth of 150mm and stockplie.	m³	101		R	-
5,2	SABS 1200 D	<u>EARTHWORKS</u>					
	8.3.3	RESTRICTED EXCAVATION					
5.2.1		Reduce levels under floors	m³	60		R	-
5.2.2		Reduce levels under concrete aprons and ramps	m³	39		R	-
5.2.3		Foundation strip footing trenches not exceeding 2m deep.	m³	51		R	-
5.2.4		Bases not exceeding 2m deep	m³	72		R	-
5.2.5		Exta Over for Intermediate	m³	25		R	-
5.2.6		Exta Over for hard Rock	m³	16		R	-
	8.3.4	Importing of material					
5.2.7		Back filling to foundations: imported G5 complying with SANS 1200 ME compacted in multiple layes not exceeding 150mm thck compacted to 93% Mod AASHTO .	m³	122		R	-
5.2.8		Imported G7 including depositing in layers not exceeding 150mm thick and compacted to 95% Mod ASHTO at OMC below solid floors and concrete aprons.	m³	120		R	-
5.2.9		Imported G5 including depositing in layers not exceeding 150mm thick and compacted to 98% Mod ASHTO at OMC below solid floors.	m³	70		R	-
5.2.10		25mm sand layer of approved sand supplied by the contractor spread and leveled under floors, etc	m³	9		R	-
5,3	SABS 1200 G	CONCRETE					
	8,2	<u>Formwork</u>					
	8.2.3	<u>Smooth</u>					
5.3.1		Sides of square columns, max height 3,5m	m²	120		R	-
5.3.2		Side of rectangular columns, max height 3,5m	m²	100		Rate only	
5.3.3		Soffit of slabs, not exceeding 250mm thick	m	365		R	-
	8.2.5	Narrow Widths					
5.3.4		Sides and soffits of beams (up to 700 wide/deep)	m	352		R	-
5.3.5		Forming of 25 x 25 chamfers to concrete edges	m	365		R	-
	8.2.6	Box out holes / Form Voids: in slabs / beams					
5.3.6		Ø 50 in slabs or beams not greater than 300 thick	No	8		R	-
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5.3.7		Ø 110 in slabs or beams not greater than 300 thick	No	4		R	-
5.3.8		Ø 150 in slabs or beams not greater than 300 thick	No	4		R	-
5.3.9		200 x 250 openings in slabs or beams not greater than 300 thick	No	3		R	-
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
	8,3	Reinforcement				
		Mild steel rod reinforcement (R - Bars: fy = 250 MPa)				
5.3.10		10mm Diameter bars	t	2,1		R -
5.3.11		12mm diameter bars.	t	1		R -
		Mild steel rod reinforcement (R - Bars: fy = 450 MPa)				
5.3.12		10mm Diameter bars.	t	5,2		R -
5.3.13		12mm diameter bars.	t	12		R -
5.3.14		16mm Diameter bars.	t	9		R -
5.3.15		20mm diameter bars.	t	4		R -
5.3.16		25mm diameter bars.	t	0,5		R -
		Welded Mesh Reinforcement				
5.3.17		High-tensile welded mesh reinforcement - reference 193.	m²	421		R -
5.3.18		High-tensile welded mesh reinforcement - reference 245	m²	250		R -
5.3.19		High-tensile welded mesh reinforcement - reference 617.	m²	25		Rate only
	8,4	<u>Concrete</u>				
5.3.20	8.4.2	Blinding Concrete 15MPa (19mm Stone)	m³	4,7		R -
	8.4.3	Mass Concrete 15MPa (38mm Stone)				
5.3.21		Filling holes, making up levels, (To be used at the sole discretion / instruction of the engineer)	m³	17		R -
		Mass Concrete 10MPa (13mm Stone) in :				
5.3.22		Filling to cavity of hollow brick wall in foundations	m³	7		R -
		Concrete 25 Mpa (19mm Stone):				
5.3.23		Strip foundations cast against excavated surfaces.	m³	35		R -
5.3.24		Column Bases cast against excavated surfaces.	m³	43		R -
5.3.25		Slabs including beams and upstand beams.	m³	85		R -
5.3.26		Aprons, walkways and ramps	m³	42		R -
5.3.27		Isolated beams.	m³	2		R -
		Concrete 30 Mpa (19mm Stone):				
5.3.28		Column	m³	11		R -
5.3.29		Plinths (provisional)	m³	2		R -
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUN	NT
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5.3.30		Surface Beds, cast in panels, including temporary formwork	m³	39		R	-
5.3.31		Mass concrete for intermediate access stairs including all temporay shuttering and edge chamfers	m³	4		R	-
		Precast Concrete Planks					
5.3.32		150mm deep - 1200mm wide "Shukuma" pre-stressed hollow core planks or similar approved, not exceeding 5m span to be designed floor a live load of 5.0KN/m²	m²	251		R	-
5.3.33		30mm sloping creed to top of seating	m²	251		R	-
5.3.34		15mm plaster (1:3) to vertical face of seating including bullnosing	m²	153		R	-
	8.4.4	Surface Finishes					
5.3.35		Wood float finish	m²	422		R	-
5.3.36		Power float finish, surface bed and slabs	m²	249		R	-
	8,5	<u>Joints</u>					
5.3.37		Floor Isolation Joints (complete as per detail IJ)	m	312		R	-
5.3.38		Floor Construction Joints (completes as per detail CJ)	m	553		R	-
5.3.39		Floor Saw Cut Joint (complete as per detail SCJ)	m	185		R	-
5.3.40		Slip joint not exceeding 300 wide formed with two layers 3 ply malthoid laid on and including a 3:1 cement mortar bedding.	m	105		R	-
5,4		SABS 1200 HA: STRUCTURAL STEEL					
5.4.1		Repaires to existing structural steel work:					
5.4.1.1		Allow the prime cost amount of R 20 000.00 (Seventy Thousand Rand) for repairs on any structural related defects on existing structures including rubbing it down with steel brush and painting with anti-rust 'Red Oxide' paint.	Prov Sum		20 000,00	R	-
5.4.1.2		Marup on Item 5.4.1.1	%		20 000,00		
5.4.2	8,3	Structural Steel: Grade S355JR, all steel hot dipped galvanised to SANS 072.					
5.4.2.1		Parallel chord welded trusses complete, approx. 13m long x 1m deep, manufactured from welded angles. (No.8)	t	2,73	-	R	-
5.4.2.2		Parallel chord welded girder complete , approx. 30m long x 3m deep, manufactured from universal beams for top and bottom chords with angle iron internals. (No.1)	t	4		R	-
5.4.2.3		Columns: H and I Profiles, including base plates, connection cleats ,etc	t	2		R	-
5.4.2.4		Roof Bracing: Angle bolted to Trusses	t	1,1		R	-
5.4.2.5		Purlins andsid rails : Cold rolled Lipped Channels bolted to trusses. Comercial Grade Steel, fy=225Mpa	t	2,35		R	-
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AN	IOUNT
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5.4.3		SABS 1200 HB: CLADDING AND SHEETING					
	8.2.2	Supply and Install Cladding and Sheeting					
		0,54 Thick "Zincalume AZ 200" coated G550 steel to "Kliplok 406" profile or other approved galvanised roof sheeting in singe lenths, with "Colorbond Ultra - African Charcoal" finish to external face and "Mountian Mist" backing coat to internal face including 8 x 3mm bitumen impregnated sealer strip at laps: (25 Year warrenty to be provided)					
5.4.3.1		Roof Sheeting, fixed to purlins spaced at approximately 1500mm centres with KL 65 Clips including stop ends at apex and turn downs at eaves.	m²	329		R	-
5.4.3.2		Vertical Side Sheeting, fixed to purlins spaced at approximately 1500mm centres with KL 65 Clips including stop ends at apex and turn downs at eaves.	m²	85		R	-
5.4.3.3		Polycarbonate roof sheeting, Modek Ampagard Opal 50 1,25mm thick "Kliplok 406 profile" lapped half acorregation, at sides of sheets and fied to steel purlins spaced at approximately 1500mm centres with stainless steel fasteners and stainless steel and PVC washers.	m²	35		R	-
5.4.3.4		Extra over roof sheeting for bull nosing to radius 510mm	m	23		R	-
	8.2.3	Supply and InstallI Ancilaries					
5.4.3.5		Corner flashing, 500mm girth three times bent	m	22		R	-
5.4.3.6		Extra over for radius at bull nose, R510mm	m	1,5		R	-
5.4.3.7		Ridge flashing, 535 girth three times bent	m	24		R	-
5.4.3.8		Serated Broad flute closure stop end	m	24		R	-
5.4.3.9		Broad flute poly closures	m	24		R	-
5.4.3.10		Drip flashing, 231mm girth three times bent	m	42		R	-
TOTAL OF	SECTION 5 C	ARRIED FORWARD TO SUMMARY				R	-

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
6		SECTION 6: BUILDING WORKS				
		PREAMBLES				
		For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.				
		SUPPLEMENTARY PREAMBLES				
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
		ALTERATIONS, ETC.				
		TEMPORARY BARRIERS, SCREENS, EXISTING SERVICES, ETC.				
		Before starting work, the Contractor shall carry out a thorough survey and examination of buildings or structures to be demolished and satisfy themselves as to the nature and requirements of the contract. The contractor is to locate and mark the positions of existing services affected by demolished work. No extras will be allowed due to the Contractor's failure to carry out the above.				
		Provide suitable and substantial timber for and execute all needlings, shoring or strutting, screens, scaffolding etc. Necessary to ensure the stability of the structure and all the works during the breaking down, alterations or building up of the works.				
		Provide all boarding and coverings to protect the existing structure where necessary including protecting all floors, finishes, windows, doors, roofs, etc.				
		Special care to be exercised not to interfere unnecessarily with any piping or electric light and telephone wires, etc that may be met with.				
		The contractor must at his own expense make good in all trades to existing work (other than that required to be altered) which is damaged or disturbed during the alterations with all necessary new materials to match and generally as specified for new work and leave complete and perfect in every respect, including cleaning down existing flooring etc.				
		Before starting work the contractor shall locate and mark the positions of existing services affected by the demolition work.				
		"Making good" is to include any labour and material required to match existing work and is to include junction of all new materials with existing work and shall include arisses or slightly rounded arisses etc to plaster.				
		Unless otherwise stated the contractor shall not remove or interfere with any furnishings, fittings or similar articles belonging to the employer, tenants and or their staff.				

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		Burning of site materials arising from the demolitions will not be permitted.				
		Note: Old materials from alterations, except where described to be re-used or handed over to the Client, are to become the property of the Contractor.				
		LOSS BY THEFT, FIRE OR OTHERWISE				
		The risk of loss by theft, fire, storm, riot or otherwise of the buildings to be demolished and the materials therein, shall rest entirely with the contractor immediately upon the handing over of the site. He shall take such steps as may deem fit. for his own protection against such loss.				
		WATER AND OTHER PIPING				
		Any water supply or other piping that may be met with and found necessary to disconnect or cut are to be effectively stopped off and removed to the water metre (excluding the water metre box).				
		ELECTRICAL AND OTHER SERVICES				
		The removal of electrical installations shall be executed by the electrical sub-contractor. The contractor shall be responsible for the co-ordination of such further work with his own.				
		DEMOLITION, REMOVAL AND WORKS ON SITE				
		The contractor shall demolish all existing structures or buildings with a minimum amount of damage to adjoining buildings, materials, etc. Any damage caused shall be made good as his own expense with materials to match existing to the entire satisfaction of the Principal Agent.				
		All materials from the demolitions etc., except where described as being set aside for re-use or to be handed over to the employer, will become the property of the contractor and, excepting as provided below, all such old material are to be removed from the site by the contractor, and rates for all works involving demolition are to include for the removal of any resultant rubble and superfluous material				
		Prices for the removal of doors and frames shall include for the removal of fan lights, ironmongery, architraves and other associated trimmings.				
		The methods, equipment, etc., to be used will be left to the Contractors discretion, providing the Contractor complies with the requirements of the contract, all acts, regulations, by-laws, etc. Should the contractor elect to use explosives or any other demolition technique or method which would necessitate insurance cover in addition to that already provided for herein, then the Contractor shall be responsible for arranging that additional cover and produce proof thereof prior to comencement. The Contractor will also be responsible for any additional excesses required in terms of that additional cover.				

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		REMOVAL FROM SITE					
		Where "removal from", "spoil" or "remove" occurs in terms, it shall include for all loading and carting away from the site to a suitable dumping site found by the Contractor and the Contractor shall pay all fees. etc in this regard.					
		DISPOSAL OF EXISTING ASBESTOS MATERIALS					
		The Contractor must refer to the "POLICY ON HANDLING AND DISPOSAL OF ASBESTOS AND ASBESTOS CONTAINING WASTE IN TERMS OF SECTION 20 OF THE ENVIRONMENT CONSERVATION ACT, 1989 (ACT 73 OF 1989), for the manner in which to handle and dispose of all asbestos materials on the site and the Contractor shall be responsible for and pay all fees, etc., in this regard					
6.1		REMOVAL OF EXISTING WORK (PROVISIONAL)					
		Breaking up and removing mass concrete:					
6.1.1		150mm Thick surface bed.	m²	15		R	-
		Breaking up and removing reinforced concrete including cutting off and removing reinforcement:					
6.1.2		100-200mm Thick slabs.	m²	10		R	-
		Taking out and removing doors, windows, etc from walls to be demolished:					
6.1.3		Glazed steel window 1500 x 1200mm high from wall.	No	4		R	-
6.1.4		Taking down and removing roofs, floors, panelling, ceilings, partitions, etc:	m²	50		R	-
6.2		MASONRY					
		PREAMBLES					
		For Trade Preambles refer to Department of Public Works 'PW 371' for Specifications and methods to be used and for the full descriptions of material and work to be done in this bill.					
		SUPPLEMENTARY PREAMBLES					
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.					
		Brickwork					
		Sizes in descriptions:					
		Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.					
		Cement Mortar					
		Unless otherwise described, all brickwork shall be built in class II cement mortar					
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		Walls etc:					
		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 'Brixeal' bitumen emulsion waterproofing coating.					
		Face bricks:					
		Bricks shall be ordered timeously to obtain uniformity in size and colour					
		Pointing:					
		Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.					
		BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
		Brickwork of NFP bricks in class II motar:					
6.2.1		One brick walls.	m²	85		R	-
6.2.2		Half brick walls.	m²	12		R	-
		BRICKWORK IN SUPERSTRUCTURE					
		Brickwork of FBX bricks in class II cement mortar:					
6.2.3		One brick walls.	m²	601		R	-
6.2.4		Half brick walls.	m²	221		R	-
		BRICKWORK SUNDRIES					
		Brickwork reinforcement:					
6.2.5		75mm wide reinforcement built horizontall, in foundation	m	66		R	-
6.2.6		75mm wide reinforcement built horizontal	m	680		R	-
6.2.7		150mm Wide reinforcement built in horizontally, in foundation	m	324		R	-
6.2.8		150mm wide reinforcement built in horizontally	m	1450		R	-
		prestressed fabricated lintels:					
6.2.9		110 x 75mm Lintels in lengths not exceeding 3m.	m	88		R	-
		FACE BRICKWORK					
		External Facebrick:					
		Allow the prime cost amount of R 6000.00 (Six Thousand Rand Excluding VAT) nett per thousand for external face bricks, supplied and delivered to site and add for taking delivery, storage, waste, profit, building in and pointing with square recessed horizontal and vertical ioints:					
6.2.10		Extra over brick for face brickwork.	m²	820		R	-
6.2.11		Extra over brickwork for face brickwork in foundations (Provisional).	m²	24		R	-
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		Air bricks etc:					
6.2.12		229 x 152mm Clay vermin proof air brick. (Provisional)	No	16		R	-
		NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
		Fibre cement window sills in single length not exceeding 3.6m, bedded in class I mortar including fixing lugs screwed to underside with self tapping screws:					
6.2.13		15 x 175mm Wide internal sills set flat and slightly projecting	m	27		R	-
6.3		WATERPROOFING					
		PREAMBLES					
		For Trade Preambles refer to Department of Public Works 'PW 371' for Specifications and methods to be used and for the full descriptions of material and work to be done in this bill					
		SUPPLEMENTARY PREAMBLES					
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.					
		DAMPPROOFING OF WALLS AND FLOORS					
		One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
6.3.1		In walls.	m²	232		R	-
		One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
6.3.2		Under surface beds.	m²	225		R	-
6.3.3		Under aprons and ramps	m²	334		R	-
		JOINT SEALANTS, ETC					
		Approved silicon or equally approved sealing compound, etc.					
6.3.4		In pointing joints around aluminium window frames and walls externally	m	61		R	-
6.3.5		In pointing joints around aluminium door frames and walls externally	m	40		R	-
6.3.6		In pointing joints between sanitary fittings and walls.	m	14		R	-
6.3.7		In pointing joints around external timber door frames and walls.	m	28		R	-
		Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc					
6.3.8		3 x 30 mm In saw cut joints in floors	m	185		R	-
6.3.9		10 x 12mm In expansion joints on floors including raking out expansion joint filler as necessary.	m	553		R	-
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6.4		CARPENTRY AND JOINERY					
		PREAMBLES					
		For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
		SUPPLEMENTARY PREAMBLES					
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
		Joinery:					
		Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.					
		Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.					
		Fixing:					
		Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.					
		General:					
		All glazing to doors or frames is elsewhere measured.					
		All factory doors are to be pre-treated with a linseed oil based transit stabilizing sealer.					
		SKIRTINGS					
		Wrought meranti:					
6.4.1		22 x 75mm Skirting nailed.	m	30		R	-
		FRAMED DOORS ETC					
		Purpose made wrought meranti doors:					
6.4.2		900 x 2100mm high solid timber door.	No	10		R	-
6.4.3		900 x 2100mm high semi solid timber door.	No	13		R	-
6.4.4		1800 x 2100mm high solid double timber door.	No	1		R	-
		FRAMED FRAMES ETC					
		Wrought meranti:					
6.4.5		44x 108mm Rebated frames for door size 900 x 2100mm high.	No	23		R	-
6.4.6		44x 108mm Rebated frames for door size 1800 x 2100mm high.	No	1		R	-
		BEADS, ARCHITRAVES, ETC					
		Wrought meranti:					
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6.4.7		44 x 44mm Rebated, splayed and grooved weather boards, fixed to external timber doors, including grooves in doors.	m	4		R -
		NOTICE BOARDS, PINNING BOARDS, WRITING BOARDS, KEYBOARDS, DUCKBOARDS, ETC.				
		Van Dyck' Pinning Board colour Misty, PFX Stain Shield Fibre, needlepunch 2,50m wide broadloom carpet, with SABS Class 3 fire rating, fibre weight 335g/m² and total weight 2435g/m². Glued to plastered walls. Manufactured accordance with SANS 1415:2005, all installed by approved installer in accordance with SANS 10186:2000, the code of practice for textile floor coverings.				
6.4.8		Pinning board size 3000 x 1500 x 9mm thick to walls. (Provisional).	No	4		Rate Only
		Parrot' White Boards BD1284, Non-Magnetic, with aluminium frames, aluminium pentray, mounting brackets, etc., fixed to walls, all installed in accordance with manufacturers instructions.				
6.4.9		White non-magnetic writing board, size 3000 x 1200mm high, plugged to walls. (Provisional).	No	4		Rate Only
		BENCHES				
		Wooden slatted bench units as Greenfield or other similar approved, complete with 2 x 150mm meranti slats and 38 x 38 x 1,2mm square tubing bearers with powder coated finish and bolted to walls and floors				
6.4.10		Wooden slatted wall mounting benches 5500mm long as code WMS001 or similar and approved mounted to walls	No	2		Rate Only
6.4.11		Wooden slatted wall mounting benches 1900mm long as code WMS001 or similar and approved mounted to walls	No	2		Rate Only
		CEILINGS, PARTITIONS AND ACCESS FLOORING				
		PREAMBLES				
		For Trade Preambles refer to Department of Public Works 'PW 371' for Specifications and methods to be used and for the full descriptions of material and work to be done in this bill				
		SUPPLEMENTARY PREAMBLES				
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.				
		Descriptions:				
		Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or 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 600mm centres, and where described as bolted the bolts have been given.				
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		Everite The following suspended ceiling systems are to be manufactured and supplied by Everite Building Products (Pty) Ltd. Unless otherwise described, electric light fittings, diffusers, etc. are lay-in units of the same dimensions as the suspension grid and allowance must be made accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof). Items described as plugged shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete. Items described as plugged and screwed shall be deemed to include screwing to fibre, plastic or metal plugs at centres not exceeding 600mm, and where described as bolted the bolts have been given. Bulkheads and vertical ceilings are to be supported on galvanised steel stud, 'Burgess' channel, galvanised mild steel angle, etc. framework which is to be made rigid with appropriate bracing and the design thereof must be submitted to the Architect for approval before erection. Factory coated white embossed vinyl 'Nutec' square edged ceiling tiles size 1195 x 595 x 4mm thick laid on white exposed tee suspension system comprising T38 main tees at 600mm centres with T38 cross tees between each tile, hold-down clips, etc., all suspended supported on white epoxy powder coated main T-pieces and cross members fixed at centres not exceeding 1200mm in both directions. Timber frame to underside of rc slab					
6.4.12		Ceilings suspended not exceeding 1m below rc slab Powder coated shodow line cornices to suspended ceilings:	m²	36		R	-
6.4.13		47 x 35mm Recessed shadowline cornice plugged (code 685-004). FLOOR COVERINGS, WALL LININGS, ETC. PREAMBLES For Trade Preambles refer to Department of Public Works 'PW 371' for Specifications and methods to be used and for the full descriptions of material and work to be done in this bill SUPPLEMENTARY PREAMBLES Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar	m	20		R	-

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AM	OUNT
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		CARPET SHEETING AND TILES					
6.4.14		FloorworX Flotex colour Ranaissance Naples, Medium Commercial (SABS use class U4), size 2.0m x 4.3mm nylon 6,6 wear needlepunch carpet, including FloorworX No.60 plus adhesive on exposed substrate. Colour to Architect later specification.	m²	36		R	-
		VINYL FLOOR COVERINGS, WALL LININGS, ETC.					
		FloorworX Autograph Interlocking vinyl floor planks in colur Aramon, Plank Size 5mm thick x 228.6mm wide x 1219.2mm PVC layered with PU coating, including stripping, sealing and polishing in accordance with the manufacturers instructions:					
6.4.15		On floors.	m²	140		R	-
		POLISH, SEALERS, ETC					
		Polish, sealers, etc:					
6.4.16		Two coats water based floor dressing on vinyl flooring.	m²	140		R	-
6.5		IRONMONGERY					
		PREAMBLES					
		For Trade Preambles refer to Department of Public Works 'PW 371' for Specifications and methods to be used and for the full descriptions of material and work to be done in this bill.					
		SUPPLEMENTARY PREAMBLES					
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.					
		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: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PI Polished and lacquered: PT Epoxy coated					
6.5.1		100mm Steel washered brass butt hinges.	No	46		R	-
6.5.2		SC Gower furniture Union CZ-682-24-95SC	No	23		R	-
6.5.3		Union CZ682-24CH/2277-76SC three lever mortice lockset.	No	23		R	-
6.5.4		6 x 100mm Mild steel dowels with mortices in hardwood and concrete.	No	80		R	-
		LETTERS, NAMEPLATES, ETC.					
		Union:					
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6.5.5		152 x 152 x 3mm Thick solid stainless steel plate with engraved and painted tea cup pictogram (code SS5066-06SSE02).	No	2		Rate Only
6.5.6		152 x 152 x 3mm Thick solid stainless steel plate with engraved and painted male pictogram (code SS5066-06SSE10).	No	2		Rate Only
6.5.7		152 x 152 x 3mm Thick solid stainless steel plate with engraved and painted female pictogram (code SS5066-06SSE11).	No	2		Rate Only
6.5.8		152 x 152 x 3mm Thick solid stainless steel plate with engraved and painted paraplegic toilet pictogram (code SS5066-06SSE14).	No	2		Rate Only
		BATHROOM FITTINGS				
		Kimberely Clarke' white toilet tissue dispenser:				
6.5.9		130 x 135 x 256mm high 'Professional SQ2' toilet tissue dispenser (code SA405606).	No	4		R -
		Kimberley-Clark:				
6.5.10		Kimberly-Clark® Professional Foam soap dispenser colour stainless steel (code: SA427736), overall size 135 x 120 x 250mm high, installed by a Kimberly Clark® installation team.	No	4		R -
		Franke:				
6.5.11		Type CNTX 900 Grade 304 32mm diameter 18/10 stainless steel grab rails with Franke fine grip 900 x 95mm deep, plugged and screwed to the wall with stainless steel screws.	No	2		R -
6.5.12		Type CNTX 900 Grade 304 32mm diameter 18/10 stainless steel grab rails around cistern with Franke fine grip 900 x 95mm deep, plugged and screwed to the wall with stainless steel screws.	No	2		R -
		SUNDRIES				
		Union:				
6.5.13		Stainless steel door stop (code 87001SS).	No	23		R -
6.5.14		27mm Diameter SS wall door stop plugged (code 99011SS).	No	4		R -
6.6		METALWORK				
		PREAMBLES				
		For Trade Preambles refer to Department of Public Works 'PW 371' for Specifications and methods to be used and for the full descriptions of material and work to be done in this bill				
		SUPPLEMENTARY PREAMBLES				
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.				
		Descriptions:				
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		Descriptions of bolts shall be deemed to include nuts and washers.					
		Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.					
		Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.					
		SECURITY GATES					
		Steel security gates:					
6.6.1		Gate for door size 900mm x 2100mm high, as per door schedule.	No	10		R	-
6.6.2		Gate for door size 1800mm x 2100mm high, as per door schedule.	No	2		R	-
		STEEL LOCKERS					
		"Greenfield Ref GB002" double door steel lockers size 300 x 450 x 1800mm high with standard baked enamel finish or similar approved					
6.6.3		Double door lockers in single row, bolted together to walls	No	22		R	-
		ALUMINIUM WINDOWS, DOORS, ETC.					
0.6.4		Wispeco (Code: 30.5-1806TT-6) or equally approved aluminium windows. Frames are to be of 60-80 micron matt black powder coated aluminium sections, constructed and installed according to the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAASA). Glazing is to be carried out in strict accordance with the SABS 0137/2000 Code of Practice: "The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SABS 1263. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are to be verified on site prior to manufacture. All shopfronts and windows must be weatherproofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape. All ironmongery to be according. Wispeco' or similar approved 38mm casement top hung aluminium windows black powder coated 25 micron and glazed with 6.38mm Solar Shield S10 grey float glass and plugged to brickwork or concrete:	No	45			
6.6.4		Window size 600 x 600mm high in one top hung sash including 2 No. 20 x 10mm rectangular tube burglar bars over each opening pane with PVC end caps all powder coated to match window frames all as per the window schedule. clazed with 4mm pacific obscure class.	No	15		R	-
6.6.5		Window size 1500 x 600mm high in 3 equal panes with 2 top hung opening sash including 2 No. 20 x 10mm rectangular tube burglar bars over each opening pane with PVC end caps all powder coated to match window frames all as per the window schedule, glazed with 4mm pacific obscure class	No	4		R	-
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		ALUMINIUM DOORS.					
		Wispeco' NDDA glass door opening in aluminium black 25 mircron powder coated frame with door and nylon insert butt hinges and including standard ironmongery, plugged to brickwork or concrete.					
6.6.6		Double entrance door size 2100 x 2100mm high overall, door consisting of two 6.38mm laminated clear glass panes, all as per detail.	No	2		R	-
6.7		PLASTERING					
		PREAMBLES					
		For Trade Preambles refer to Department of Public Works 'PW 371' for Specifications and methods to be used and for the full descriptions of material and work to be done in this bill					
		SUPPLEMENTARY PREAMBLES					
		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.					
		SCREEDS					
		Screeds on concrete:					
6.7.1		25mm Thick on floors and landings.	m²	285		R	-
		GRANOLITHIC					
		Untinted granolithic on concrete:					
		INTERNAL PLASTER					
		10-15mm Cement plaster on brickwork:.					
6.7.2		On walls.	m²	30		Rate Only	
6.7.3		On narrow widths	m²	10		Rate Only	
		EXTERNAL PLASTER					
		10-15mm Cement plaster on brickwork:					
6.7.4		On walls.	m²	50		Rate Only	
		CORNER PROTECTORS, DIVIDING STRIPS, ETC					
		Corner protectors, dividing strips, etc					
6.7.5		30 x 40mm Flat section aluminium dividing strips cut to lengths and bedded on edge in door openings, including forming groove on top of concrete or screeds, at threshold	m	10		R	-
6.8		TILING					
		PREAMBLES					
		For Trade Preambles refer to 'Model Preambles for Trades: (2008 Edition) for the full descriptions of material and work to be done in this bill.					
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		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar auality may be used with prior approval from the Architect. Descriptions: 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. The area to be tiled is to be wood floated. If tiling onto critical surfaces prime with approved new generation flexible one part adhesive which enables application directly onto critical surfaces. Surfaces must be firm and free of dust, mould, oil, grease, wax polish and organic growth. Organic growth must be removed and the spores killed with an effective fungicide such as a household bleaching solution. Painted and gypsum plastered surfaces must be chipped to remove 80% of the paint or gypsum. Enamel painted surfaces must be completely stripped by scraping and then chipped to expose 80% of the substrate. Existing bitumen coated surfaces or areas where parquet floors were removed must be completely stripped by scraping and then chipped to expose 80% of the substrate. Smooth, off form/shutter or power floated cement surfaces must be acid washed to remove laitance and rinsed with water. MOSAIC FLOOR TILING White 450 x 450 x 10mm porcelain mosaic tiles laid to				
6.8.1		strictaccording with manufacturer detailed instructions laid on bedding fixed with TAL Mosaicfix tile adhesive to screeded floors and flush pointed with tile grout. On Floors	m²	100		R -
6.9		PLUMBING AND DRAINAGE (PROVISIONAL)	ш	100		
		PREAMBLES For Trade Preambles refer to 'Model Preambles for Trades: (2008 Edition) for the full descriptions of material and work to be done in this bill. SUPPLEMENTARY PREAMBLES Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.				
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
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	REFERS		UNIT		RATE	
		type or equally approved. Capillary solder fittings shall comply with ISO 2016 and SANS specifications. Only				
		compression fittings shall be used in walls or in ground.				

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
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		Chasing:				
		Chasing pipes into new walls shall be regarded as "building in" and is not measured seperately. The cost of chasing and making good shall be included in the rates for the pipes.				
		Fixing of pipes:				
		Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level				
		Reducing Fittings:				
		Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.				
		Wire gratings:				
		Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.				
		Exposed concrete surfaces:				
		Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.				
		Excavations:				
		No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
		Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
		Laying, backfilling, bedding, etc of pipes:				
		Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.				
		Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB				
		Concrete pipes:				
		Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.				
		Flush pans:				
		Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.				
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Stainless steel basins, sinks, wash troughs, urinals, etc: Units shall have standard aprons on all excool odges and stifles (exes against walls where applicable.) Waste unions: Descriptions of waste unions shall be deemed to include ribber or unionize pluss and chains fixed to fittings. Silicone Sealisht: Prices for sanitary fittings are to include for the application of white and-fi-lungal silicone sealant retiveren the fittings and abutting wall and floor finishes, vanity tops, bathroom fittings, once. SOIL DRAINAGE Normal dury uPVC sewer and drain pipes 1.10mm Pipes laid in and including trenches not acceeding m 41	ITEM NO	PAY REFERS		DESCRIPTION	UNIT	TOTAL QTY	RATE	A	MOUNT
Units shall have standard aprons on all exposed edges and thino keys against walls where applicable. Waste unions: Descriptions of waste unions shall be deemed to include nubber or vulcanine plugs and chains fixed to fittings. Silicone Sealant: Prices for sanitary fittings are to include for the application of white anti-fungal silicone sealant between the fittings and abuting well and floor finishes, vanity tops, bathroom fittinos, etc. SOIL DRAINAGE Normal dury uPVC sewer and drain pipes 110mm Pipes laid in and including trenches not exceeding m 41 R R - 110mm Pipes laid in and including trenches not exceeding m 41 R R - 110mm Access bend 110mm Bend 110mm Access bend No 18 R - 110mm Access bend 110mm Access incition No 19 R - 110mm Access incition No 19 R - 110mm Access incition 110mm cast iron Rodding eye cast into concrete surround No 4 R - 110mm Access incition 110mm access incition in the price of the pric	BROUGHT		FROM	I PREVIOUS PAGE				R	-
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Descriptions of waste unions shall be deemed to include rubber or vulcanile plups and chains fixed to fittings. Sillcone Sealant: Prices for sanitary fittings are to include for the application of write ant-fungal silicone sealant between the fittings and abouting wall and floor finishes, vanity tops, bathroom fittinosi, etc. SOIL DRAINAGE Normal duty uPVC sewer and drain pipes 110mm Pipos laid in and including trenches not exceeding m 41 R R - 110mm Pipos laid in and including trenches not exceeding m 41 R R - 110mm Pipos laid in and including trenches not exceeding m 82 R R - 110mm Access junction 110mm Access junction No 18 R R - 110mm Access junction No 18 R R - 110mm Access junction No 19 R R - 110mm									
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Normal duty uPVC sewer and drain pipes 110mm Pipes laid in and including trenches not exceeding Im deep Extra over normal duty u PVC sewer and drain pipes for fittings 3.9.2			of ab	white anti-fungal silicone sealant between the fittings and butting wall and floor finishes, vanity tops, bathroom					
110mm Pipes laid in and including trenches not exceeding Im deep Extra over normal duty u PVC sewer and drain pipes for fittings 110mm Bend No 18 R R - 110mm Access bend No 18 R R - 13.9.4 110mm Access bend No 19 R R - 13.9.5 110mm cast iron Rodding eye cast into concrete surround No 4 R R - 14 Precast concrete Gulley not exceeding 1m deep. Including cast iron Grating and waste trap. RAINWATER DISPOSAL Colamet pre-painted aluminium gutter in single lengths fixed to gutter brackets at 900 centres with tie-backs straps at every second bracket minimum: 125 x 100mm eaves gutters. M 20 R R - 145 x 100mm eaves gutters. M 20 R R - 15.9.9 125 x 100mm diameter rainwater downpipes. M 4 R R - Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R R - Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).			s	OIL DRAINAGE					
Tim deep Extra over normal duty u PVC sewer and drain pipes for fittings			N	ormal duty uPVC sewer and drain pipes					
fittings	6.9.1				m	41		R	-
110mm Access bend				· · ·					
110mm Access junction 110mm cast iron Rodding eye cast into concrete surround No 19 R - 110mm cast iron Rodding eye cast into concrete surround No 4 R - R - 3.9.6 Precast concrete Gulley not exceeding 1m deep. Including cast iron Grating and waste trap. RAINWATER DISPOSAL Colamet' pre-painted aluminium gutter in single lengths fixed to gutter brackets at 900 centres with tie-backs straps at every second bracket minimum: 125 x 100mm eaves gutters. 125 x 100mm diameter rainwater downpipes. 120 R - 125 x 100mm diameter stoped ends. Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R - 3.9.10 100mm diameter Outlet. No 2 R - R - R - S.9.11 100mm diameter shoe. R - R - S.9.12 Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.2		11	10mm Bend	No	18		R	-
110mm cast iron Rodding eye cast into concrete surround No 4 R Precast concrete Gulley not exceeding 1m deep. Including cast iron Grating and waste trap. RAINWATER DISPOSAL Colamet' pre-painted aluminium gutter in single lengths fixed to gutter brackets at 900 centres with tie-backs straps at every second bracket minimum: 125 x 100mm eaves gutters. m 20 R 100 x 75mm diameter rainwater downpipes. m 20 R 125 x 100mm diameter stoped ends. m 4 R Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.3		11	10mm Access bend	No	18		R	-
Precast concrete Gulley not exceeding 1m deep. Including cast iron Grating and waste trap. RAINWATER DISPOSAL Colamet' pre-painted aluminium gutter in single lengths fixed to gutter brackets at 900 centres with tie-backs straps at every second bracket minimum: 125 x 100mm eaves gutters. 100 x 75mm diameter rainwater downpipes. 125 x 100mm diameter stoped ends. Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R - Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall nout thracket, (Code 426213).	6.9.4		11	10mm Access junction	No	19		R	-
cast iron Grating and waste trap. RAINWATER DISPOSAL Colamet' pre-painted aluminium gutter in single lengths fixed to gutter brackets at 900 centres with tie-backs straps at every second bracket minimum: 125 x 100mm eaves gutters. m 20 R - 100 x 75mm diameter rainwater downpipes. m 20 R - 125 x 100mm diameter stoped ends. m 4 R - Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R - Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.5		11	10mm cast iron Rodding eye cast into concrete surround	No	4		R	-
Colamet' pre-painted aluminium gutter in single lengths fixed to gutter brackets at 900 centres with tie-backs straps at every second bracket minimum: 125 x 100mm eaves gutters. 100 x 75mm diameter rainwater downpipes. 125 x 100mm diameter stoped ends. Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R - R - 100mm diameter bouldet. No 2 R - Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.6				No	6		R	-
fixed to gutter brackets at 900 centres with tie-backs straps at every second bracket minimum: 125 x 100mm eaves gutters. 100 x 75mm diameter rainwater downpipes. 125 x 100mm diameter stoped ends. Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R - R - 100mm diameter Shoe. R - R - Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).			R	AINWATER DISPOSAL					
100 x 75mm diameter rainwater downpipes. 125 x 100mm diameter stoped ends. Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R - 100mm diameter shoe. No 2 R - Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).			fix	ked to gutter brackets at 900 centres with tie-backs straps					
Extra over rainwater goods for fittings: 1.9.9.10	6.9.7		12	25 x 100mm eaves gutters.	m	20		R	-
Extra over rainwater goods for fittings: 100mm diameter Outlet. No 2 R - 100mm diameter shoe. No 2 R - Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.8		10	00 x 75mm diameter rainwater downpipes.	m	20		R	-
100mm diameter Outlet. 100mm diameter Outlet. No 2 R - 100mm diameter shoe. Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.9		12	25 x 100mm diameter stoped ends.	m	4		R	-
5.9.11 100mm diameter shoe. Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).			E	xtra over rainwater goods for fittings:					
Rainwater harvesting: Supply and install complete 5000L PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.10		10	00mm diameter Outlet.	No	2		R	-
PVC water tanks connected to the gutter system down pipes. SANITARY FITTINGS Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall mount bracket, (Code 426213).	6.9.11		10	00mm diameter shoe.	No	2		R	-
Disposer Bins: Kimberly Clark white wall mounted disposer bins with wall nounted disposer bins with a continue bin nounted disposer bins with a continue bin nounted disposer bins with a continue bin nounted disposer bins	6.9.12		P۱	VC water tanks connected to the gutter system down	No	2		R	-
Kimberly Clark white wall mounted disposer bins with wall No 4 R - mount bracket, (Code 426213).			S	ANITARY FITTINGS					
mount bracket, (Code 426213).			Di	isposer Bins:					
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
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		Sanitary Bins:				
6.9.14		Servest Hygiene Ocean Femmé Sanitary Bin (Code: DIS-BINNS-005), overall size 180 x 520 x 345mm deep, plugged and screwed to wall with stainless steel screws.	No	4		R -
		Vaal Bantam Sanitaryware' vitreous china wash hand basins and pedestals:				
6.9.15		455 x 290mm white colour vitreous china basin with two taphole including integrated overflow and chainstay hole bolted to wall with 10mm bolts and including plugs, waste and all olumbina connections	No	17		R -
		Vaal Sanitaryware' vitreous china WC suites:				
6.9.16		Hibiscus' white vitreous china suite outlet fixed on and including floor/hanging bracket comprising 90° outlet open rim with back inlet pan (code: 772656) with matching 9 litre cistern complete including plastic lid, fitments or top dual flush suite.	No	12		R -
6.9.17		Pearl Paraplegic' white vitreous china wall hung washdown suite fixed on and including floor/hanging bracket comprising 90° outlet semi-closed rim with back inlet pan (code: 439016) with matching 9 litre cistern complete including plastic lid, fitments, and purpose made C.P sideflush lever(left or right). Supplied with purpose made thermoset seat and cover plate	No	2		R -
		Vaal Sanitaryware' vitreous china urinals:				
6.9.18		415 x 315 x 275mm white Vaal flatback vitreous china wall hung bowl urinal (code: 705326) including 38mm chromium plated domical grating and chromium plated top inlet spreader and exposed flush valve and pipe (e/m) fixed on and including two hanger brackets and urinal division fixed with and including fixing screws and hanger bracket.To be installed to manufacture details using top inlet flushvalve.	No	7		R -
		Franke' Trendline stainless steel drop-on sinks, etc:				
6.9.19		Franke Trendline stainless steel drop-on sink size 1500 x 535mm complete with 38mm waste fittings, plugs, waste, trap and all plumbing connection to suite.	No	1		Rate Only
		Shower curtains and rails, etc.:				
6.9.20		Supply and install complete Heavy Duty shower curtain and stainless steel rail for 915mm access opening	No	4		R -
		Shower trays, etc.:				
6.9.21		Sphinx Elba white square acrylic shower tray, overall size 900 x 900mm with 52mm waste outlet supported on 38 x 38mm timber battens fixed to adjacent walls and set on 1:5 cement mortar bedding with void between the shower tray and enclosing wall filled with 1:10 uncompacted cement and point all around with mildew resistant silicone between shower tray and tiles, all in accordance with manufacturer's recommendation inclusive of soap dishes and star taps.	No	4		R -
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUN	IT
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		WASTE UNIONS ETC					
		Franke' combination sink wastes:					
6.9.22		Franke Spazio 1' Plumbing kit comprising 40mm 'P' trap with offset connection and one 40mm PVC sink waste with plug and connection to one appliance.	No	1		Rate Only	
		TRAPS ETC					
		Approved rubber traps:					
6.9.23		32 x 40mm Reseal 'P' trap.	No	10		R	-
		Cobra Watertech' or equally approved traps etc:					
6.9.24		50mm Rough brass medium seal shower 'P' trap with FI outlet and cleaning eye (code VA2.342).	No	4		R	-
6.9.25		32 mm Chrome plated deep seal bottle trap with outlet for 50mm PVC (code 345/50).	No	17		R	-
		TAPS, VALVES, ETC					
		Cobra Watertech':					
6.9.26		FJ6000 urinal flush valve and FJT5.5 flush pipe.	No	7		R	-
		Cobra Watertech' 'Star' pillar taps:					
6.9.27		15mm Chrome plated AQ-15 'Aquila' pillar tap with flow straightener.	No	23		R	-
		Cobra Watertech' shower roses and accessories:					
6.9.28		150mm diameter Chrome plated shower rose (code 074-15) withwith round single function).	No	4		R	-
		Cobra Watertech' 'Melia' pillar taps:					
6.9.29		12mm Chrome plated one hole prep bowl pillar tap with swanneck swivel outlet (Code: ME-215/044), manufactured in accordance with SANS 1480:2005 (BS 5412).	No	1		Rate Only	
		SANITARY PLUMBING, ETC.					
		uPVC pipes:					
6.9.30		40mm Pipes chased into brickwork	m	25		R	-
6.9.31		50mm Pipes chased into concrete floor	m	20		R	-
6.9.32		110mm Pipes vertically or ramped to cleaning eyes etc (no excavation).	m	20		R	-
		Extra over uPVC pipes for fittings:					
6.9.33		40mm Bend.	No	10		R	-
6.9.34		40mm Junction.	No	11		R	-
		Sundries:					
6.9.35		Testing waste pipe system.	Item	1		R	-
		WATER SUPPLIES					
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMO	UNT
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		Class 2 Copper pipes with capillary joints					
6.9.36		15mm Pipes	m	60		R	-
6.9.37		15mm Pipes chased into brickwork	m	80		R	-
6.9.38		22mm Pipes	m	50		R	-
6.9.39		22mm Pipes chased into brickwork	m	20		R	-
		Extra over class 2 copper pipes for capillary fittings					
6.9.40		15mm Bend	No	55		R	-
6.9.41		15mm Tee	No	30		R	-
6.9.42		15mm Male Coupler	No	38		R	-
6.9.43		22mm Bend	No	30		R	-
6.9.44		22mm Tee	No	10		R	-
6.9.45		22mm Male Coupler	No	18		R	-
		ELECTRIC WATER HEATERS					
		Electric water gysers and Heaters (SANS 151:2002) :					
6.9.46		150 Litre Dual electric water heater (code ESG-100-I), complying with SABS 151-2002, overall size 990 x 480mm high, complete and fitted with isolator switch, operating at 600kPa with temperature and pressure control valve, including 20mm female draincock with inlet compression and a 22mm 600kPa Mono pressure control valve (elsewhere measured). Geyser to be mounted horizontally in ceiling space including geyser platform on roof trusses.	No	1		R	-
		TESTING					
		Testing:					
6.9.47		Testing water pipe system. FIRE APPLIANCES ETC. Fire Extinguishers:	Item	1		R	-
6.9.48		5kg CO2 type fire extinguisher including bracket and meranti backboard plugged and screwed to wall.	No	5		R	-
		Fire Hose Reels:					
6.9.49		Everyway' fire hose reel complete with 30m rubber hose, chromium plated stopcock/ball valve, fire hose reel combined nozzle stop cock shut-off nozzle and wall bracket mounted to wall as per manufacturers instructions.	No	2		R	-
6.9.50		Extra for 66mm diameter 0-2500 KPA Glycerine filled pressure gauge c/w stop cock and pig tail to end of line fire hose reels, complete.	No	2		R	-
6.10		<u>GLAZING</u>					
		PREAMBLES					
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
BROUGHT		ROM PREVIOUS PAGE				R -
BROUGHI	FORWARD F	For Trade Preambles refer to 'Model Preambles for Trades: (2008 Edition) for the full descriptions of material and work to be done in this bill. SUPPLEMENTARY PREAMBLES Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect. Glazing to comply with SANS 1263 Part 1, 2 or 3 with the name of the manufacturer permanently marked on each sheet visible after glazing and glazing in accordance with NBR N schedule 1 and SABS 0137. TOPS, SHELVES, DOORS, MIRRORS, ETC. 4mm Silvered float glass copper backed mirrors with				R -
6.10.1		polished edges fixed with double sided adhesive tape: Mirror 450 x 650mm high.	No	8		R -
6.11		PAINTWORK				
		PREAMBLES				
		For Trade Preambles refer to 'Model Preambles for Trades: (2008 Edition) for the full descriptions of material and work to be done in this bill. SUPPLEMENTARY PREAMBLES Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect. All work to be executed in strict accordance with the Manufacturers specifications and instructions. Primers and first coats may be thinned in accordance with the paint specifications to aid the absorption of the paint.				
		All surfaces must be sound, clean and have a moisture content of less than 8% for walls generally and 3% for slabs/screeds etc. Where surfaces of plaster etc are sandy / friable, the first coat must be replaced with 'Merit' plaster primer thinned 10% with turpentine.				
		ON FLOATED PLASTER				
		Prepare surfaces and remove all loose material, apply one coat 'Plascon Merit Plaster Primer' (UC56), one coat universal undercoat and two coats 'Plascon Wall and All' paint:				
6.11.1		On interior walls. Prepare surfaces and remove all loose material, apply one coat 'Plascon Merit Plaster Primer' (UC56), one coat universal undercoat and two coats 'Plascon Wall and All' paint:	m²	40		Rate only
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
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6.11.2		On exterior walls.	m²	50		Rate only
6.11.3		On internal and external floated plaster walls (sides, soffits and reveals of windows, doors etc)	m²	5		Rate only
		ON SMOOTH CONCRETE				
		One coat "abecote 386" epoxy sealer and undercoat and two coats "abecote 320" epoxy enamel paint				
6.11.4		On power floated floors	m²	60		Rate only
		Prepare surfaces and remove all loose material, apply one coat 'Plascon Merit Plaster Primer' (UC56) and two coats 'Plascon Velvaglo Polyurethane Enamel' paint:				
6.11.5		On ceilings and cornices.	m²	290		Rate Only
		On Timber				
		Stop, fill, sand down and prepare wood surfaces and apply one coat 'Dulux Primer for Wood', one coat 'Dulux Universal Undercoat' and two coats 'Dulux Pearlglo Non-Drip Gloss Enamel' paint				
6.11.6		On door frames.	m²	12		R -
		Stop, sand down and prepare wood surfaces and apply three coats 'Plascon Woodcare Woodcoat Polyurethane' X33 gloss clear varnish:				
6.11.7		On internal doors .	m²	92		R -
6.11.8		On exteriorl doors .	m²	24		R -
TOTAL OF	SECTION 6 (CARRIED FORWARD TO SUMMARY				R -

7 7,1 7.1.1 7.1.1.1 7.1.1.1	REFERS	SECTION 7 : ELECTRICAL WORKS L.T. NETWORKS (PROVISIONAL) 600/1000 VOLT PVC SWA CABLES: The supply and installation of 600/1000V PVC SWA cables in trenches and sleeves , as shown on the drawing.				
7.1.1		600/1000 VOLT PVC SWA CABLES: The supply and installation of 600/1000V PVC SWA cables				
7.1.1.1		The supply and installation of 600/1000V PVC SWA cables				
		25mm² x 4 Core				
7.1.1.2		Supply	m	50	R	-
		Install	m	50	R	-
		6mm² x 4 Core				
7.1.1.3		Supply	m	50	R	-
7.1.1.4		Install	m	50	R	-
		6mm² x 3 Core				
7.1.1.5		Supply	m	50	R	-
7.1.1.6		Install	m	50	R	-
7.1.2		CABLE ENDS:				
		Making off ends of 600/1000V PVC SWA cables onto switchgear and busbars, including all necessary cable end material, glands and cable clamps, through joints etc., as needed.				
		25mm² x 4 Core				
7.1.2.1		Supply	Each	4	R	-
7.1.2.2		Install	Each	4	R	-
		2.5mm² x 3 Core				
7.1.2.3		Supply	Each	4	R	-
7.1.2.4		Install	Each	4	R	-
7.1.3		EARTH CONDUCTOR:				
		The supply and installation of bare copper earth in trenches, sleeves and cable racks, as shown on the drawing, complete with all connections.				
		16mm²				
7.1.3.1		Supply	m	25	R	-
7.1.3.2		Install	m	25	R	-
7.1.4		EXCAVATIONS:				
		Excavation of trenches, 700mm deep by 450mm wide, backfilling (450mm only) and compacting as specified, complete.				
7.1.4.1		In soft soil	m	50	R	-
7.1.4.2		Extra for hard rock	m³	5	R	-
		Bedding material				
7.1.4.3		Supply	m³	10	R	-
CARRIED F	ORWARD TO	NEXT PAGE		l	R	-
BROUGHT I	FORWARD FF	ROM PREVIOUS PAGE			R	-
7.1.4.4		Install as per drawing	m³	10	R	
7.1.4.4 7.1.5		PVC DANGER TAPE:	111"	10	IN .	-

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
		Supply and installation of cable tape as specified, 300mm wide.				
7.1.5.1		Supply	m	50		R -
7.1.5.2		Install	m	50		R -
7.1.6		CABLE MARKERS:				
		The supply and installation of cable markers as specified.				
7.1.6.1		Supply	Each	3		R -
7.1.6.2		Install	Each	3		R -
7.1.7		PVC SLEEVES:				
		110mm ø				
7.1.7.1		Supply, complete with 2mm draw-wire	m	10		R -
7.1.7.2		Install, complete with sealing	m	10		R -
		50mm ø				
7.1.7.3		Supply, complete with 2mm draw-wire	m	5		R -
7.1.7.4		Install, complete with sealing	m	5		R -
7.1.8		TESTING:				
7.1.8.1		Testing and commissioning of L.T. Reticulation networks as per specification and drawings, complete.	Sum	1		R -
7.1.9		Allow a budgetary amount for the sports ground bulk connection.	Prov Sum	1	150 000,00	
7.1.10		Attendance and Markup on item 7.1.9	%		150 000,00	R -
7,2		ELECTRICAL INSTALLATION: (PROVISIONAL)				
7.2.1		Provide the amount of R 500 000.00 (Five Hundred Thousand Rands) for Electrical Installations, including distribution cables, power and lighting, fittings, external lighting, etc., executed complete.	Prov Sum	1	500 000,00	
7.2.2		Attendance and Mark-up on item above	%		500 000,00	R -
TOTAL OF	SECTION 7 CA	ARRIED FORWARD TO SUMMARY				R -

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT	
8		SECTION 8 : CIVIL SERVICES					
8,1	SANS 1200C	SITE CLEARANCE					
8.1.1	8.2.8	Demolish and remove existing septic. Rate to include desludging, backfilling and compaction with selected material from site and haulage to designated spoil site located by the contractor.	m³	6		R	-
8,2	SANS 1200 DB	SEWER INFRASTRUCTURE					
8.2.1	8.3.2	EXCAVATIONS : HAND					
		Excavate in all materials for trenches 600mm wide, backfill, compact and dispose of surplus material for sewer pipes in open areas and street reserve with depths of:					
8.2.1.1		0,5 - 0,9m	m	1		Rate only	
8.2.2	8.3.2 (a)	EXCAVATIONS : MACHINE					
		Excavate in all materials for trenches 600mm wide, backfill, compact and dispose of surplus material for sewer pipes in open areas and street reserves with depths of:					
8.2.2.1		0 m- 1,0 m	m	63		R	-
		E.O. items 8.2.2.1 for excavations in:					
8.2.2.2	8.3.2 (b)	Hard rock	m³	6		R	-
8.2.3	SANS 1200 LB	BEDDING Pipes to be laid on a Class C bedding					
	8.2.1	Provision of bedding from trench excavation within 1km.					
8.2.3.1		Selected Granular Material	m³	5		R	-
8.2.3.2		Select Fill Material	m³	14		R	-
	8.2.2.2	Provision from Borrow pits					
8.2.3.3		Select Granular Material	m³	5		Rate only	
8.2.3.4		Select Fill Material	m³	14		Rate only	
8.2.4	SANS 1200	SEWER PIPELINES (GRAVITATION)					
	LD 8.2.1	Supply, lay, join, bed (Class C) and test of Class 34 (Solid wall) uPVC pipes (SABS 791)					
8.2.4.1		160mmø	m	63		R	-
8.2.5		FITTINGS					
		Supply, handle and install UPVC specials with Z-LOK integral sockets on class C bedding					
8.2.5.1		160 x 160mm dia Y-junctions with double sockets complete	No.	1		R	-
8.2.5.2		160mm dia x 45deg bends with single sockets	No.	1		R	-
CARRIED F	ORWARD TO	NEXT PAGE			1	R	

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMC	UNT
BROUGHT		ROM PREVIOUS PAGE				R	-
8.2.6		MANHOLES					
		Excavate in earth for and build inspection chamber with 100mm thick 15MPa mass concrete bottom with one brick wall sides and 125mm thick precast concrete cover slab with 755 x 755mm opening for manhole cover and frame set (manhole cover elsewhere measured) in cement mortar and sealed in tallow and with fine mass concrete benching in bottom floated smooth with falls to and including 160mm uPVC channels and finished on all exposed surfaces with 25mm thick plaster with angles rounded including all					
8.2.6.1		Inspection chamber 600 x 600mm and not exceeding 750mm deep internally	No	1		R	-
8.2.6.2		Inspection chamber 600 x 600mm exceeding 750mm and not exceeding 1000mm deep internally	No	1		R	-
		Polymer concrete covers etc					
8.2.6.3		Type 9B medium duty cast iron double seal manhole cover and frame size 600 x 600 x 38kg	No	2		R	-
8.2.7	8.2.3	CONSERVANCY TANK					
8.2.7.1	SABS 1200DA	EARTHWORKS					
	8.3.2	Excavation in all material, backfill, compact to 93% Mod AASHTO density and dispose of all surplus material.					
8.2.7.1.1	(a)	Tank Excavation	m³	50		R	-
8.2.7.1.2	(b)	E.O. Item 8.2.6.1.1 for Hard Excavation	m³	30		R	-
8.2.7.2	SABS 1200G	CONCRETE (Structural)					
	8.4.3	Supply, mixing, placing, curing and testing of concrete:					
8.2.7.2.1		Reinforced concrete 25MPa/19mm in floor slab	m³	5,5		R	-
8.2.7.2.2		Reinforced concrete 25MPa/19mm in roof slab	m³	4,5		R	-
8.2.7.3		SHUTTERING					
		Supply, assembly and stripping of shuttering:					
8.2.7.3.1	8.2.2	Vertical: side of slabs	m²	10		R	-
8.2.7.3.2	8.2.1	Horizontal: roof slabs	m²	18		R	-
8.2.7.3.3	8.2.6 (a) & (d)	Forming of recesses and openings as per drawing	No.	4		R	-
8.2.7.4		REINFORCING STEEL					
	8.3.1	Supply, cut, bend, install and fixing of steel reinforcing					
		High-tensile steel reinforcing:					
8.2.7.4.1		Y12	t	0,35		R	-
		Medium tensile steel reinforcing :					
CARRIED I	FORWARD TO	NEXT PAGE				R	-

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUN	Т
BROUGHT		ROM PREVIOUS PAGE				R	-
8.2.7.4.2		R 8	t	0,1		R	-
8.2.7.5		SURFACE FINISHING					
	8.4.4 (b)	Supply all material and labour for steel trowel finishing:					
8.2.7.5.1		Top of floor slab (horizontal)	m²	18		R	-
8.2.7.5.2		Top of roof slab (horizontal)	m²	25		R	-
8.2.7.5.3		Benching (sloped surface)	m²	18		R	-
8.2.7.6		MANHOLE COVER					
8.2.7.6.1		Supply all material and labour for installation of Type 9B Polymer concrete manhole cover and frame.	No.	2		R	-
8.2.7.7		BRICKWORK					
8.2.7.7.1		345mm brick walls in conservancy tank including plaster both sides	m²	35		R	-
8.2.7.7.2		230mm brick walls in conservancy tank including plaster both sides	m²	10		Rate only	
8,3		WATER SUPPLY INFRASTRUCTURE					
8.3.1	SABS 1200 DB	EXCAVATION					
	8.3.2 (a)	Excavation in all materials for trenches 450 mm wide, backfill, compact and dispose of surplus material.					
8.3.1.1		0,51 - 1,00 m deep	m	160		R	-
		E.O item 3.1. for excavations in:					
8.3.1.2	8.3.2 (b)	Hard Rock	m³	11		R	-
8.3.1.3	8.3.2 (c)	Excavate and dispose of unsuitable material from trench bottom	m³	3,5		R	-
8.3.2		CLEAN WATER CONNECTION					
		ERF CONNECTIONS					
	8.2.1	Excavate in all materials for trenches, supply, lay and bed erf connections complete as per detail drawings, complete with all couplings, fittings, and other specials required, inclusive of labour, materails, testing, disinfection and marking:					
8.3.2.1		40 mm Single connection on 50mm DIA WATER MAIN (15m length)	No	1		R	-
		CONNECTION TO EXISTING SERVICES					
		Locate, excavate and expose existing water main to allow for connection of the new erf connection, inclusive of labour, cutting of pipes, couplings, other required fittings and specials necessary as well as the disposal of all surolus materials					
8.3.2.2		New 40 mm dia connection to existing Pipe (diameter to be confirmed)	No	1		R	-
	8.3.5	EXISTING SERVICES THAT INTERSECT OR ADJOIN A PIPE TRENCH					
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMO	UNT
BROUGHT	FORWARD FF	ROM PREVIOUS PAGE				R	-
	8.3.5 (a)	Services that intersect a trench at an anglle of >45°.					
8.3.2.3		Electrical / Telephone Conductors	No.	1		R	-
8.3.2.4		Water / sewer conductor up to 160mmø	No.	1		R	-
8.3.4	8.3.6	FINISHING					
8.3.4.1		Reinstate gravel road surface complete with all courses including accomodation of traffic	m²	15		R	-
8.3.5		WATER METER					
		Supply and install Elster Kent domestic Water Meter (Incl. factory supplied meter box) and other required specials and fittings, complete to Municipal standard					
8.3.5.1		40 mm dia	No	1		R	-
8,4	SANS 1200	BEDDING (PVCu Pipes)					
	LB	Pipes to be laid on a Class C bedding					
	8.2.1	Provision of bedding from trench excavation within 1km.					
8.4.1		Selected Granular Material	m³	7		R	-
8.4.2		Select Fill Material	m³	21		R	-
8,5	SABS 1200 L	MEDIUM PRESSURE PIPELINES					
		PVCu Class 9 Pipes					
	8.2.1	Supply, handle, lay and bed (Class C bedding), Z-lock joints as specified, test and disinfect pipes for :					
8.5.1		63 mm dia	m	160		R	-
8,6	8.2.2	SPECIALS AND FITTINGS					
		Extra over for supply, lay, handle, bed (Class C bedding), of specials & fittings, including cutting of pipes to lengths where required, test and disinfect for PVCu Class 9 pipes:					
		Bends for PVCu pipes					
		PVCu Manufactured bends to the manufacturers specifications - Class 16 with one end plain and the other with mechanical seal in PVCu pipeline in degrees ranging:					
8.6.1		63 mm x 90°	No	4		R	-
8.6.2		63 mm x 45°	No	1		R	-
		T-pieces for PVCu pipes					
8.6.3		63 x 50 mm dia- PN16	No	3		R	-
		Flange Adaptors for PVC-U pipes					
8.6.4		63mm Ø - PN16	No	3		R	-
	ORWARD TO	NEVI BAGE				R	

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUN	Γ
BROUGHT	FORWARD F	ROM PREVIOUS PAGE				R	-
8,7		VALVES					
		 Supply and install complete with precast concrete valve box cover and lid, including concrete support joints, cut pipes, bolts, nuts and packing. Gate valves for installation into pipelines and fittings. Valves to be denzo tape wrapped for below ground installations. 					
		Inline Valves - resilient seat - with handwheels					
8.7.1		50mm diameter PN 10 - Flanged	No	4		R	-
8.7.2		50mm diameter PN 10 - Socketed	No	2		R	-
		FLOAT CONTROL VALVE					
8.7.3		Supply and install complete Vosa equilibrium float valve 50mm diameter PN10	No	1		R	-
		ELEVATED TANK					
		Supply and install complete: Hot dip galvanised Pressed Steel water Tank on Hot dip galvanised steel footing structure. Rate to include all galvanised steel pipework for the inlet, scour and outlets arrangements as per detail drawing no. 33955/CIV/4. Valves measured elsewhere					
8.7.4		3.66m x 3.66m x 2.44m high with 10m high footing structure	No	1		Rate Only	
8.7.5		Concrete base for the elevated tank, complete as per reservoir supplier specification.	Prov Sum	1	120 000,00	Rate Only	
8.7.5.1		Mark up on Item 8.7.5	%		120 000,00	Rate Only	
		ANCILLARIES					
8.7.6	8.2.11	Anchor/thrust blocks according to details	m³	1		R	-
TOTAL OF	SECTION 8 C	ARRIED FORWARD TO SUMMARY	l			R	_

ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
9		SECTION 9 : ENTRANCE ROAD & PARKING				
9,1	SANS 1200C	SITE CLEARANCE				
9.1.1	8.2.5	Removal of concrete pavers on pallets from parking area to a suitable storage area located within the site.	Sum	1		Rate Only
9,2	SABS 1200DA	<u>EARTHWORKS</u>				
9.2.1		Site Preparation				
	8.3.1 & PSDA	Rip and removal of existing asphalt layer				
9.2.1.1		a) 30mm asphalt layer	m^2	1790		Rate Only
9.2.2		Bulk Excavation				
	8.3.1 & PSDA 8.3.1 B)	Remove topsoil to nominal depth of 100mm, stockpile and maintain.				
9.2.2.1		a) Parking Area	m³	20		Rate Only
	8.3.1 & PSDA 8.3.1 B)	Bulk excavation by ripping material 200mm thick, loading and carting away, dispose of at a spoil site located by the contractor.				
9.2.2.2		a) Parking Area	m³	70		Rate Only
		Extra-over items 9.2.2.1 to 9.2.2.2 for excavating and breaking down material in resticted areas by hand or small plant				
9.2.2.3		a) intermdiate material	m³	10		Rate Only
9.2.3		Existing Services				
	8.3.5	Location.				
9.2.3.1		Excavate by hand to expose existing service as directed by the Engineer	m³	10		Rate Only
	8.3.5	Dealing with services that are at risk because of construction works				
9.2.3.2		Permanent protection of Electrical, Electronic and all wet services through the site.	sum	1		Rate Only
9,3	SABS 1200G	<u>CONCRETE</u>				
		Formwork				
9.3.1	8.2.4	Formwork rough off shutter in 300mm width's	m^2	21		Rate Only
	8.3.1	Reinforcement				
	8.3.2	High tensile welded steel mesh off mass:				
9.3.2		ii) 3.95 kg/m²	m^2	20		Rate Only
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOUNT
BROUGHT		ROM PREVIOUS PAGE	•			R -
	PSG, PSG 5.5.8	1) Concrete 300mm thick to be 15MPa to receive Long Micro Fibre at a rate of 600g – 1200g/m3 Saw-butt joints shall be done as soon as concrete is firm enough not to damage the edges, between 6 to 16 hours but not later than 48 hours. Joints to be repeated in finished surfaces spacing of joints to be at 2,5m c/c. Joints measures seperately. Degree of accuracy level 2. Curing as per PSG 5.5.8 aplied as per manufacturers specification and application rates all included				
9.3.3		1) Hardstands	m³	3		Rate Only
	8.4.4 PSG 5.5.10.2	Surface Finishes degree of accuracy level 2				
9.3.4		d) Manual trowel float finish	m ²	21		Rate Only
	8.5 PSG 5.5.7	<u>Joints</u>				
9.3.5		1) butt Joints	m	3		Rate Only
9,4	SABS 1200 MK	KERBING AND CHANNELLING				
	8.2.1	Pre Cast Concrete kerbing 35/13 Mpa on 25Mpa Haunching				
		(a) Fig 3 barrier kerb				
9.4.1		(1) Straight kerbing	m	315		Rate Only
		(2) Curved kerbing of radius				
9.4.2		(i) Over 1 m up to 4 m	m	40		Rate Only
9,5	SABS 1200 DM	ROADS SUB GRADE				
	8.3.3	Road bed Preparation				
9.5.1		b) Rip 150mm thick and compact to 93% Mod Aashto Density	m ²	2112		Rate Only
9.5.2	8.3.4	Importation of G5 material from commercial source, blend 50/50 with material obtained from milling item 3.2.2 stabilise with 3% Cement, water, spread and compact to 98% Mod AASHTO density and finish off, in layers of 150mm thick.	m³	320		Rate Only
	8.3.13	Top soiling / Grassing				
9.5.3		a) Top soiling 150mm thick from topsoils obtained item 3.1	m ²	550		Rate Only
9.5.4		b) Grassing with Kikuyo Runners	m ²	550		Rate Only
9,6	SABS 1200 MJ	SEGMENTED PAVING				
	8.2.1	Provision of edge restraints				
9.6.1		Edge restraint fig 2A kerb to SABS 927 - 1969 along interface with existing surfaced road way complete with haunching to 25/13 Mpa installed complete	m	10		Rate Only
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ITEM NO	PAY REFERS	DESCRIPTION	UNIT	TOTAL QTY	RATE	AMOU	NT	
BROUGHT	BROUGHT FORWARD FROM PREVIOUS PAGE							
9.6.2	8.2.2	Construction of paving complete Pavers type S-A 80mm in thickness in herringbone pattern complete. Colour Grey, obtained from stockpiled material selected and harvested from item 3.1.2, including bedding and filler sand	m²	2112		R	ate Only	
9.6.3	8.2.3	Cutting Units to fit edge restraint	m	30		R	ate Only	
9.6.4	8.2.5	Trial section	m ²	25		R	ate Only	
TOTAL OF	TOTAL OF SECTION 9 CARRIED FORWARD TO SUMMARY							