

	C2.1 Pricing Instructions	
1	The price schedule is provided as a schedule of rates applicable to each site.	
2	Rates provided on the price schedule will apply across multiple work packages for the site.	
3	All quantities provided are strictly provisional and subject to re-measure based on the work packages that are to be executed.	
4	All PC cost amounts provided are strictly provisional and reimbursement will be based on net actual cost for the PC cost item.	
5	All provisional sums provided are strictly provisional and reimbursement will be based on the net actual cost for the provisional sum item.	
6	No commitment is made to expend any or all quantities, PC cost amounts and provisional sum and work done will be strictly determined by each work package specified by the employers agent. The contractor shall have no claim against the employer for any quantities, PC Cost amounts or provisional sums not expended.	
7	All quantities, provisional sums and PC Cost amounts shall be expended as directed by the Client and any balance remaining shall be deducted from the contract sum.	
8	The Contract Data, specifications, drawings and any other documents relevant to this tender must be read in conjunction with the Pricing Schedule. The Contract Data is according to NEC3 ECC: Option B - Priced contract with Bills of Quantities.	
9	This schedule covers the items that will be measurable.	
10	The pricing schedule as completed by the Contractor shall cover, "inter alia" all general risks, liabilities, obligations, profit, expenses, costs, bonuses, all allowances such as shift and standby allowances, sick-leave, other leave, brackets, fixings, incidentals, consumables, trainings, medicals etc. that will be required to successfully complete the works as set forth or as implied in the documents on which this Contract is based.	
11	The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates, plant, temporary works, return of packaging, establishment charges, profit and all other obligations arising out of the scope of works.	
12	The contractor is to take note that payment is made for each item only when it is complete. "Complete" as it is used in this schedule means the complete system or unit as specified in the particular document.	
13	Unless a separate rate for the supply and for the installation of any item is specifically called for, the supply and installation costs of any item shall be fully included in the price.	
14	No alterations to the original text shall be allowed. If any alterations are made, they will be ignored, and the original wording will apply.	
15	It will be assumed that prices tendered are based on incorporating relevant Acts, Ordinances, Regulations, By - Laws, National Standards and International standards as it applies to the scope of works.	
16	Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.	
17	Health and Safety will be audited on a continuous basis. The Contractor shall comply with the Occupational Health and Safety Act, and the relevant Regulations.	
18	Permits and Induction shall be paid at cost and shall be paid on proven cost. The Contractor shall provide proof of personnel that attended the Induction and received a permit.	
19	Before a Permit is issued, a Security Clearance will be done. No permit will be granted to persons who are not in good standing in respect of this clearance. Bidders to note that permit costs for any changes in the staff / resources after approval of each work package is for the cost of the Contractor.	
	BUDGETARY ALLOWANCES	
20	There are elements of the Scope of Works for which the Employer is unable to provide, at the time of tender, sufficient information for the Contractor to consider and subsequently provide Prices within the Bill of Quantities. The Employer includes his estimate of the Actual Cost of carrying out such work by providing items comprising "PC Cost Amounts" and "Provisional Sums" as the Prices. The Contractor will maintain records of Actual Cost of the Work done and submit to the Project Manager. The Final Total of Prices will be adjusted accordingly.	

CHIEF DAWID STUURMAN INTERNATIONAL AIRPORT - CDSIA

				CLUSTER 3		
				CDSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 1				
		BILL NO.1				
		PRELIMINARIES				
		PREAMBLES FOR TRADES				
		The Model Preambles for Trades (2008 edition) 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 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 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 Model Preambles and in any supplementary preambles				
		SUPPLEMENTARY PREAMBLES				
		Fixed Charge Items - In general the sum tendered for each fixed charge item will be paid only after the obligations in respect of that item have, in the opinion of the employer/employers agent have been met. Proof of obligations having been met shall be provided to support payment				
		Time Related Items - The amount shall cover all the contractors time related obligations for the entire site irrespective of number of work packages being executed on the site. Payment shall be made for periods of construction works on site. Periods between work packages where there is no construction works will not attract time related charges unless otherwise approved by the employers agent.				
		Value Related Items - The sum tendered for each value related item will only be paid as a proportion of work completed to date on each certificate. The proportion of the amount paid shall be the same as the proportion of work complete to date which is cumulative cost to date divided by the contact sum Provisional amounts included under value related items shall only be utilised on written instruction of the employers agent and will be paid at net cost plus agreed mark up Specialised PPE is defined as PPE other than 'Standard PPE' Standard PPE is defined as: Overalls/Uniforms, Reflector Jackets, Safety Boots, Gloves, Dust Masks, Goggles, Ear Plugs & Hard Hats all of which must be SABS/SANS compliant				
		FIXED CHARGE ITEMS				
CDS 1.1		General Insurance Requirement (Sureties, guarantees, bonds, workman's compensation etc)	Sum	1,00	R	R
CDS 1.2		Contract works insurance	Sum	1,00	R	R
CDS 1.3		Public liability insurance	Sum	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
CDS	1.4	Other fixed obligations	Sum	1,00	R		R
		TIME RELATED ITEMS					
		<u>Operation and Maintenance of Facilities on Site, for duration of construction, except where otherwise stated</u>					
CDS	1.5	Offices (Accommodates up to 5 staff x 1 off)	month	48,00	R		R
CDS	1.6	Storage sheds (12m x 2.4m x 1 off - Includes Delivery & Removal)	month	48,00	R		R
CDS	1.7	Ablution & Latrine facilities (5 x Male & 3 x Urinal & 3 x Female & 1 x Paraplegic & 2 x Standalone Units)	month	48,00	R		R
CDS	1.8	Electric Power & Lighting	month	48,00	R		R
CDS	1.9	Water supplies, electric power and communications	month	48,00	R		R
		<u>Supervision</u>					
		<u>Supervisor/Foreman</u>					
CDS	1.10	Site Supervision for the duration of the contract (x 1 Resource)	month	48,00	R		R
		<u>Safety Management</u>					
CDS	1.11	Provision of full time Construction Site Safety Officer (x 1 Resource)	month	48,00	R		R
CDS	1.12	Compliance with the Occupational Health and Safety Act (OHSA) and Regulations (including the Construction Regulations, 2014)	month	48,00	R		R
CDS	1.13	Site Security	month	48,00	R		R
CDS	1.14	Signage for the site	month	48,00	R		R
CDS	1.15	Other time related obligations	month	48,00	R		R
		VALUE RELATED ITEMS					
CDS	1.16	Contractual requirements	Sum	1,00	R		R
CDS	1.17	Provision for Specialised PPE Requirements	Prov	1,00	R	215 767,63	R 215 767,63
CDS	1.18	Allow for profit & attendance if required	%		R	215 767,63	R
CDS	1.19	Provision for Location and Protection of Existing Underground Services	Prov	1,00	R	129 460,58	R 129 460,58
CDS	1.20	Allow for profit & attendance if required	%		R	129 460,58	R
CDS	1.21	Provision for Compliance with Environmental requirements	Prov	1,00	R	129 460,58	R 129 460,58
CDS	1.22	Allow for profit & attendance if required	%		R	129 460,58	R
CDS	1.23	Provision for ACSA Training and Airports Permits (ACSA Issue)	Prov	1,00	R	431 535,27	R 431 535,27
CDS	1.24	Allow for profit & attendance if required	%		R	431 535,27	R
		Materials & Plant					
CDS	1.25	Provision for Sundry Materials & Plant	Prov	1,00	R	253 295,00	R 253 295,00
CDS	1.26	Allow for profit & attendance if required	%		R	253 295,00	R
		Provisional Sum					
CDS	1.27	Sundry preliminary requirements	Prov	1,00	R	253 295,00	R 253 295,00
CDS	1.28	Allow for profit & attendance if required	%		R	253 295,00	R

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				CLUSTER 3		
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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 2				
		BILL NO.1				
		LABOUR SCHEDULE				
		GENERAL				
		labour rates will be utilised where 'dayworks' are deemed required as specified by the employers agent.				
		Daywork - The employer's Agent may schedule day works where appropriate for various classes of labour. The unit rates for labour shall cover overhead charges & profit, insurances, wage costs, salary costs, use of equipment & tools and transport & Allowances costs.				
		Operating Times				
		Normal Hours: Regarded as between 06:00am and 18:00pm weekdays				
		After Hours: Regarded as between 06:00pm and 06:00am weekdays				
		After Hours: Regarded as between 06:00am and 23:59pm Saturdays				
		Sundays & Public Holidays: Regarded as Between 0:00am and 23:59pm on Sundays and Public Holidays				
		Additional Supervisor / Foreman (General Building)				
CDS	2.1	Normal Hours	Man Hours	1700,00	R	R
CDS	2.2	After Hours	Man Hours	430,00	R	R
CDS	2.3	Sundays & Public Holidays	Man Hours	170,00	R	R
		Additional Supervisor / Foreman (Civil Works)				
CDS	2.4	Normal Hours	Man Hours	830,00	R	R
CDS	2.5	After Hours	Man Hours	430,00	R	R
CDS	2.6	Sundays & Public Holidays	Man Hours	170,00	R	R
		Handyman				
CDS	2.7	Normal Hours	Man Hours	1850,00	R	R
CDS	2.8	After Hours	Man Hours	430,00	R	R
CDS	2.9	Sundays & Public Holidays	Man Hours	170,00	R	R
		Brick Layer				
CDS	2.10	Normal Hours	Man Hours	860,00	R	R
CDS	2.11	After Hours	Man Hours	430,00	R	R
CDS	2.12	Sundays & Public Holidays	Man Hours	170,00	R	R
		Carpenter				
CDS	2.13	Normal Hours	Man Hours	1290,00	R	R
CDS	2.14	After Hours	Man Hours	430,00	R	R
CDS	2.15	Sundays & Public Holidays	Man Hours	170,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Tiler				
CDS	2.16	Normal Hours	Man Hours	900,00	R	R
CDS	2.17	After Hours	Man Hours	430,00	R	R
CDS	2.18	Sundays & Public Holidays	Man Hours	170,00	R	R
						R -
		Plasterer				
CDS	2.19	Normal Hours	Man Hours	860,00	R	R
CDS	2.20	After Hours	Man Hours	430,00	R	R
CDS	2.21	Sundays & Public Holidays	Man Hours	170,00	R	R
		Painter				
CDS	2.22	Normal Hours	Man Hours	1730,00	R	R
CDS	2.23	After Hours	Man Hours	430,00	R	R
CDS	2.24	Sundays & Public Holidays	Man Hours	170,00	R	R
		Welder				
CDS	2.25	Normal Hours	Man Hours	1730,00	R	R
CDS	2.26	After Hours	Man Hours	430,00	R	R
CDS	2.27	Sundays & Public Holidays	Man Hours	170,00	R	R
		General Assistant				
CDS	2.28	Normal Hours	Man Hours	26000,00	R	R
CDS	2.29	After Hours	Man Hours	500,00	R	R
CDS	2.30	Sundays & Public Holidays	Man Hours	200,00	R	R
		Shutterhand / Formwork Specialist Installer				
CDS	2.31	Normal Hours	Man Hours	860,00	R	R
CDS	2.32	After Hours	Man Hours	430,00	R	R
CDS	2.33	Sundays & Public Holidays	Man Hours	170,00	R	R
		Waterproofing Technician / Specialist Installer				
CDS	2.34	Normal Hours	Man Hours	860,00	R	R
CDS	2.35	After Hours	Man Hours	430,00	R	R
CDS	2.36	Sundays & Public Holidays	Man Hours	170,00	R	R
		Ceiling & Partitions Specialist Installer				
CDS	2.37	Normal Hours	Man Hours	860,00	R	R
CDS	2.38	After Hours	Man Hours	430,00	R	R
CDS	2.39	Sundays & Public Holidays	Man Hours	170,00	R	R

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				CLUSTER 3		
				CDSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.1				
		ALTERATIONS				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		GENERAL				
		In taking down and removing existing work the utmost care shall be observed to prevent any structural or other damage to remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc to ensure the stability of all structures during alterations work.				
		Special care shall be exercised during the progress of the work to ensure that any electrical installations, water supply pipes, telephones and other services which may be encountered are not interfered with and notice shall be given to the Employer's Representative if any disconnection or alterations become necessary.				
		Any water supply and other piping that may be encountered and which is found necessary to disconnect or cut shall, after such disconnection or cutting has been authorised by the Employer's Representative, be effectively stopped off and any new connections that may be necessary made with the proper tees, junctions pieces, etc. to the satisfaction of the Employer's Representative.				
		The Contractor shall afford every facility to workmen not under his control making disconnections and new connections as required to any service.				
		MATERIALS FROM ALTERATIONS, ETC				
		Old materials to be carted away				
		Old materials from alterations, where described as to be "removed" as well as all rubbish, etc. must be regularly carted from the site and not be allowed to accumulate on or around the site.				
		Old materials not to be re-used				
		None of old materials are to be used for new work except where specifically described as being "set aside for re-use". The clients agent will indicate materials that are to be 'set aside for re-use' at the issuing of each work package				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Handing over materials				
	Where certain materials or articles from alterations are described as to be "handed over" to the Employer's Representative, such material or articles shall be properly stored by the Contractor, until handing over thereof. The Contractor must obtain an official receipt listing the materials or articles and dates of handing over. If the Contractor fails to submit the receipt when requested, it shall be deemed that the materials or articles are still in his possession and he will be held liable to the client for the full replacement value thereof, which amount will be deducted from monies due to the Contractor. The clients agent will at issuing of each work package indicate materials that are to be handed over				
	EXISTING BUILDINGS				
	The existing buildings will be in use and occupied during the progress of the contract and the contractor will be required to carry out the works in such a manner as will least interfere with the occupants and with the minimum of disturbance.				
	Contractors are also to note that due to the buildings being occupied the repairs and renovations works will be required to be executed in a specific order as will be determined by the Employer' Representative.				
	SIZE PERTAINING TO EXISTING WORK				
	The Contractor is advised to check all dimensions affecting the existing buildings on the site and he will be held solely responsible for the correctness of sizes of all new work.				
	All sizes given in relation to the existing work are approximate				
	MAKING GOOD DAMAGED WORK				
	The Contractor shall make good in all trades to existing work where damaged or disturbed through the alterations with all necessary new materials to match the existing				
	FORMING NEW OPENINGS OR ALTERING				
	Openings in existing walls				
	Descriptions of forming new openings or altering openings in existing walls shall be deemed to include breaking out for and forming new brick, in situ concrete or prestressed concrete lintels including all reinforcement, formwork, turning pieces, etc, building up jambs or portion of openings as described with brickwork properly toothed and bonded to existing, building cavities of hollow walls solid where necessary and making good finishes all around on both sides and into reveals as described.				
	BUILDING UP OPENINGS				
	Descriptions of building up existing openings where given in number shall be deemed to include preparing existing surfaces all around, brickwork properly toothed and bonded to existing, wedging up and making good on both sides as described.				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		PAINTWORK				
		Where plasterwork on walls, ceilings, etc. are required to be patched or made good, prices are to include for the appropriate priming coat and one coat undercoat to receive paint finishing coats which are measured elsewhere.				
		TEMPORARY BARRIERS, SCREENS, ETC				
		Temporary barriers, screens, etc including removal on completion				
CDS	3.1.1	Temporary hoarding of galvanised diamond mesh covered with shade cloth 2.7m high and removal later	m	220,00	R	R
CDS	3.1.2	Extra over for galvanised mild steel double gate and frame 1 511 x 2032mm high	No	4,00	R	R
CDS	3.1.3	Drywall barricade not exceeding 2.4m high of galvanised steel channel section rails and studs covered on one side with 12,7mm gypsum plasterboard and finished with two coats interior quality PVA emulsion paint, including corners, ends, etc	m	320,00	R	R
CDS	3.1.4	Extra over preceding item for hollow core single door 813 x 2032mm high, including steel frame, two-lever mortice lock, primer and two coats paint	No	4,00	R	R
CDS	3.1.5	Hoarding between concrete floor and ceiling formed of suitable timber framing with 22mm thick shutter board	m2	110,00	R	R
CDS	3.1.6	Metal sheeting hoarding 2m high fixed to steel posts at equal centres including paint to external face of sheets and posts.	m2	110,00	R	R
CDS	3.1.7	Temporary 12mm shutter board protection lining to walls, floors and ceilings including removing after completion and making good to walls, floors and ceilings	m2	220,00	R	R
		REMOVAL OF EXISTING WORK				
		Breaking up and removing mass concrete including reinforcing and carting to approved disposal area within the airport.				
CDS	3.1.8	Stairs with landings, waist, treads, risers, ramps, surface beds, strip footing, reinforced concrete etc	m3	220,00	R	R
		Breaking down and removing existing concrete work including all steel reinforcing, steel corners bolts etc and carting to approved disposal area within the airport.				
CDS	3.1.9	Concrete Columns, beams and slabs not exceeding 3m high	m3	60,00	R	R
CDS	3.1.10	Manholes, bases, strip footings etc not exceeding 1.5m deep	m3	60,00	R	R
CDS	3.1.11	Surface beds not exceeding 100mm thick	m3	60,00	R	R
CDS	3.1.12	Surface beds exceeding 100mm thick and not exceeding 150mm thick	m3	60,00	R	R
		Breaking down and removing brickwork including all steel door frames, window frames etc and carting to approved disposal area within the airport.				
CDS	3.1.13	Half brick wall	m2	320,00	R	R
CDS	3.1.14	One brick wall	m2	320,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taking up and removing vinyl floor coverings, tiles, carpets, etc				
CDS	3.1.15	Ceramic / Porcelain / Marble tiles to floor including preparing floor for new floor covering	m2	1080,00	R	R
CDS	3.1.16	Vinyl / plastic / carpet floor covering including preparing floors for new floor coverings	m2	430,00	R	R
		Hacking up and removing off coverings to walls, columns, partitionwalls etc. including preparing surfaces for new finishes				
CDS	3.1.17	Tiles from walls, columns	m2	220,00	R	R
CDS	3.1.18	Wall paper covering from walls, columns etc.	m2	110,00	R	R
		Taking out / off and removing sundry metalwork				
CDS	3.1.19	Stainless steel / mild steel barrier not exceeding 150mm diameter including vertical supports and making good to concrete to receive new finish	m	320,00	R	R
		Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)				
CDS	3.1.20	Timber single door and steel frame not exceeding 2,5m ²	No	60,00	R	R
CDS	3.1.21	Timber double door and steel frame exceeding 2,5m ² and not exceeding 5m ²	No	40,00	R	R
CDS	3.1.22	Timber double door and steel frame exceeding 5m ² and not exceeding 7.5m ²	No	40,00	R	R
CDS	3.1.23	Glazed aluminium/steel/timber window not exceeding 2,5m ²	No	60,00	R	R
CDS	3.1.24	Glazed aluminium/steel/timber window exceeding 2,5m ² and not exceeding 5m ²	No	40,00	R	R
CDS	3.1.25	Glazed aluminium/steel/timber window exceeding 5m ² and not exceeding 7.5m ²	No	40,00	R	R
		Taking down and removing roofs, floors, panelling, ceilings, partitions, etc				
CDS	3.1.26	Suspended ceilings, including suspension grid, hangers, cornices, etc not exceeding 3.0m high	m2	1080,00	R	R
CDS	3.1.27	Drywall partitions not exceeding 3.0m high, including doors, glazed borrowed lights, etc	m	650,00	R	R
CDS	3.1.28	Toilet partitioning not exceeding 3.0 m high	m2	220,00	R	R
		Taking out and removing sundry joinery work, fittings, etc				
CDS	3.1.29	Skirtings - various widths	m	430,00	R	R
CDS	3.1.30	Timber sills - various widths	m	110,00	R	R
CDS	3.1.31	Timber wall mounted cupboard - Measured by surface area covered on the wall	m2	110,00	R	R
CDS	3.1.32	Timber floor mounted cupboard - Measured by surface area covered on the floor	m2	110,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.1.33	Timber sink cupboard, including sink and disconnecting & terminating waste pipe - Measured by surface area covered on the floor	m2	60,00	R	R
CDS	3.1.34	Timber/stone counters	m2	110,00	R	R
		Taking out/off and removing sundry metalwork				
CDS	3.1.35	Steel pipe handrails from walls, including brackets, and making good plaster finish	m	110,00	R	R
		Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screed, plaster, tile finishes, etc				
CDS	3.1.36	Not exceeding 100mm thick Screed from floors	m2	1080,00	R	R
CDS	3.1.37	Internal plaster from walls and columns not exceeding 3m high	m2	1080,00	R	R
CDS	3.1.38	Internal plaster from ceilings and beams not exceeding 3m high	m2	1080,00	R	R
CDS	3.1.39	External plaster from walls, columns and beams not exceeding 3m high	m2	1080,00	R	R
		POWER WASH ON EXISTING WALLS				
CDS	3.1.40	Power wash on existing walls (Internal and external walls) as per Employer Agent instruction	m2	1080,00	R	R
		Taking down and removing				
CDS	3.1.41	Mesh fence with steel posts and droppers	m2	2160,00	R	R
CDS	3.1.42	Steel palisade fence with steel posts and droppers	m2	2160,00	R	R
CDS	3.1.43	Concrete palisade fence with concrete posts and droppers	m2	2160,00	R	R
CDS	3.1.44	Security fence with 45 degree barbed wire overhang with posts and droppers	m2	2160,00	R	R
CDS	3.1.45	Half brick boundary or yard wall	m2	540,00	R	R
CDS	3.1.46	One brick boundary or yard wall	m2	540,00	R	R
CDS	3.1.47	Clearvu Fence not exceeding 2,0m high with steel posts	m	540,00	R	R
		Lift and removing pre-cast concrete including bedding, etc				
CDS	3.1.48	60mm Interlocking paving	m2	1990,00	R	R
CDS	3.1.49	80mm Interlocking paving	m2	1990,00	R	R
CDS	3.1.50	50mm Cement or brick paving	m2	1990,00	R	R
CDS	3.1.51	Fig.1 Kerbing	m	320,00	R	R
CDS	3.1.52	Fig.2 Kerbing	m	320,00	R	R
CDS	3.1.53	Fig.3 Kerbing	m	320,00	R	R
CDS	3.1.54	Fig.4 Kerbing	m	320,00	R	R
CDS	3.1.55	Fig.5 Kerbing	m	320,00	R	R
CDS	3.1.56	Fig.6 Kerbing	m	320,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS 3.1.57	Fig.6 Kerbing - Mountable	m	320,00	R	R
CDS 3.1.58	Fig.7 Kerbing	m	320,00	R	R
CDS 3.1.59	Fig.8 Kerbing	m	320,00	R	R
CDS 3.1.60	Fig.8b Kerbing - Mountable	m	320,00	R	R
CDS 3.1.61	Fig.8c Kerbing - Mountable	m	320,00	R	R
CDS 3.1.62	Fig.12 Kerbing	m	320,00	R	R
CDS 3.1.63	Fig.14 Kerbing	m	320,00	R	R
CDS 3.1.64	Fig.16 Kerbing	m	320,00	R	R
	PREPARATORY WORK TO EXISTING SURFACES				
CDS 3.1.65	Hacking faces of existing concrete columns, beams, etc to receive plaster	m2	110,00	R	R
CDS 3.1.66	Making good defects in existing screeded floors with "an SABS approved self leveling screed"	m2	110,00	R	R
	MAKING GOOD OF FINISHES ETC				
	Making good face brickwork				
	<u>Brickwork in Stock clay bricks (7 Mpa nominal strength) in class II mortar in stretcher bond</u>				
CDS 3.1.67	Ends of half brick walls	m	110,00	R	R
CDS 3.1.68	Ends of one brick walls	m	110,00	R	R
CDS 3.1.69	Faces of walls where half brick cross walls removed	m	60,00	R	R
CDS 3.1.70	Faces of walls where one brick cross walls removed	m	60,00	R	R
	Making good gypsum plasterboard ceilings and timber branderling				
CDS 3.1.71	Ceilings in patches	m2	60,00	R	R
CDS 3.1.72	Ceilings where half brick walls removed	m	60,00	R	R
CDS 3.1.73	Ceilings where one brick walls removed	m	60,00	R	R
	Making good cement screeds				
CDS 3.1.74	Not exceeding 100mm Thick on floors in patches	m2	110,00	R	R
CDS 3.1.75	Floors where half brick walls removed	m	60,00	R	R
CDS 3.1.76	Floors where one brick walls removed	m	60,00	R	R
	Making good internal cement plaster				
CDS 3.1.77	Walls in patches	m2	60,00	R	R
CDS 3.1.78	Concrete ceilings in patches	m2	60,00	R	R
CDS 3.1.79	Walls where half brick walls removed	m	60,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.2				
		EARTHWORKS				
		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.				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Carting away of excavated material				
		Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
		Filling				
		Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
		SITE CLEARANCE ETC				
		Site clearance				
CDS	3.2.1	Stripping average 300mm thick layer of top soil and stockpile on site	m2	1730,00	R	R
		EXCAVATION, RISK OF COLLAPSE, FILLING, ETC				
		Excavation in earth not exceeding 2m deep including carting to a stockpile				
CDS	3.2.2	To trenches	m3	500,00	R	R
CDS	3.2.3	To holes	m3	50,00	R	R
CDS	3.2.4	Reduced levels under floors	m3	80,00	R	R
		Excavation in earth exceeding 2m deep but ne. 4m including carting to a stockpile				
CDS	3.2.5	To trenches	m3	220,00	R	R
CDS	3.2.6	To holes	m3	40,00	R	R
CDS	3.2.7	Reduced levels under floors	m3	60,00	R	R
		EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
		Extra over trench and hole excavations in earth for excavation in				
CDS	3.2.8	EO: Soft rock	m3	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
CDS	3.2.9	EO: Hard rock	m3	40,00	R		R
		Extra over all excavations for carting away					
CDS	3.2.10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	430,00	R		R
		Risk of collapse to sides of excavation n.e 2m deep					
CDS	3.2.11	To trenches	m2	390,00	R		R
CDS	3.2.12	To holes	m2	90,00	R		R
		Risk of collapse to sides of excavation exceeding 2m but n.e 3.5m deep					
CDS	3.2.13	To trenches	m2	395,00	R		R
CDS	3.2.14	To holes	m2	130,00	R		R
		Keeping excavations free of water					
CDS	3.2.15	Keeping excavations free of water	Item	1,00	R		R
		FILLING ETC					
		Earth filling obtained from excavations and/or prescribed stock on site compacted to 93 % Mod AASHTO density piles					
CDS	3.2.16	Under foundations, floors, steps, pavings, etc	m3	170,00	R		R
		Earth filling supplied (G5) by contractor compacted to 93% Mod AASHTO density					
CDS	3.2.17	Under floors, steps, paving, foundations, manholes etc	m3	300,00	R		R
		Compaction of surfaces					
CDS	3.2.18	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	860,00	R		R
		Prescribed density tests on filling					
CDS	3.2.19	"Modified AASHTO Density" test	No	1,00	R		R
CDS	3.2.20	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	1,00	R		R
		SOIL POISONING					
		Soil insecticide					
CDS	3.2.21	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	430,00	R		R
CDS	3.2.22	To bottoms and sides of trenches etc	m2	430,00	R		R
		Materials & Plant					
CDS	3.2.23	Provision for Sundry Materials & Plant	Prov	1,00	R	27 100,00	R 27 100,00
CDS	3.2.24	Allow for profit & attendance if required	%		R	27 100,00	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.3				
		CONCRETE, FORMWORK AND REINFORCEMENT				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		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 employers agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. PRICES FOR CONCRETE ARE TO INCLUDE FOR ALL TESTS AND CERTIFICATES				
		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 reuse 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" In order to accommodate the custom in some regions to give formwork to sides of beams, isolated beams, etc separately from formwork to the soffits thereof, the items in respect of formwork to beams, isolated beams, etc are given under the headings of "formwork to sides", "formwork to soffits" and "formwork to sides and soffits"				
		UNREINFORCED CONCRETE				
		15 Mpa / 20mm mass concrete				
CDS	3.3.1	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	80,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		20 Mpa/20mm vibrated reinforced concrete				
CDS	3.3.2	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	80,00	R	R
CDS	3.3.3	To columns	m3	40,00	R	R
CDS	3.3.4	To slabs	m3	40,00	R	R
CDS	3.3.5	To beams	m3	40,00	R	R
CDS	3.3.6	Walls	m3	40,00	R	R
		25 Mpa/20mm vibrated reinforced concrete				
CDS	3.3.7	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	80,00	R	R
CDS	3.3.8	To columns	m3	40,00	R	R
CDS	3.3.9	To slabs	m3	40,00	R	R
CDS	3.3.10	To beams	m3	40,00	R	R
CDS	3.3.11	Walls	m3	40,00	R	R
		30MPa/20mm vibrated reinforced concrete				
CDS	3.3.12	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	80,00	R	R
CDS	3.3.13	To columns	m3	40,00	R	R
CDS	3.3.14	To slabs	m3	40,00	R	R
CDS	3.3.15	To beams	m3	40,00	R	R
CDS	3.3.16	Walls	m3	40,00	R	R
		35 Mpa/20mm vibrated reinforced concrete				
CDS	3.3.17	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
CDS	3.3.18	To columns	m3	10,00	R	R
CDS	3.3.19	To slabs	m3	10,00	R	R
CDS	3.3.20	To beams	m3	10,00	R	R
CDS	3.3.21	Walls	m3	10,00	R	R
		40 Mpa/20mm vibrated reinforced concrete				
CDS	3.3.22	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
CDS	3.3.23	To columns	m3	10,00	R	R
CDS	3.3.24	To slabs	m3	10,00	R	R
CDS	3.3.25	To beams	m3	10,00	R	R
CDS	3.3.26	Walls	m3	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TEST CUBES				
CDS	3.3.27	Making and testing 150 x 150 x 150mm concrete strength test cube, testing and providing test results	No	30,00	R	R
		CONCRETE SUNDRIES				
		Finishing top surfaces of concrete smooth with a wood float				
CDS	3.3.28	Surface beds, slabs,beams, walls, paving etc	m2	430,00	R	R
		Finishing top surfaces of concrete smooth with a steel trowel				
CDS	3.3.29	Surface beds, slabs,beams, walls, paving etc	m2	430,00	R	R
		Finishing top surfaces of concrete smooth with a power float				
CDS	3.3.30	Surface beds, slabs,beams, walls, paving etc	m2	430,00	R	R
		Scabble existing concrete surfaces, wire brush corroded rebar and apply "Prostruct 616" or similar approved wet to dry concrete adhesive				
CDS	3.3.31	Side of existing concrete	m2	220,00	R	R
		Finishing top surfaces of concrete with and including a nonslip brushed concrete finish including wave-like lines parallel				
CDS	3.3.32	To falls	m2	220,00	R	R
		35MPa non-shrink grout				
CDS	3.3.33	Bedding approximately 30mm thick under 300 x 300mm base plate, including chamfered edges all round	m3	3,00	R	R
		Core through 250mm thick Reinforced concrete walls, slab, etc. with a diamond saw or other mechanical means to form including grouting with "Epidermix 395" liquid grouting compound				
CDS	3.3.34	40mm Diameter opening	No	10,00	R	R
CDS	3.3.35	50mm Diameter opening	No	10,00	R	R
CDS	3.3.36	110mm Diameter opening	No	10,00	R	R
CDS	3.3.37	200mm Diameter opening	No	10,00	R	R
CDS	3.3.38	250mm Diameter opening	No	10,00	R	R
CDS	3.3.39	350mm Diameter opening	No	5,00	R	R
CDS	3.3.40	450mm Diameter opening	No	3,00	R	R
		Rough formwork to sides				
CDS	3.3.41	Edges , risers, ends and reveals not exceeding 300 mm high	m	430,00	R	R
CDS	3.3.42	To ground beams	m2	220,00	R	R
		Smooth formwork to sides including supports etc.				
CDS	3.3.43	To beams	m2	200,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.3.44	To columns	m2	200,00	R	R
CDS	3.3.45	To pits	m2	200,00	R	R
CDS	3.3.46	To ramps	m2	200,00	R	R
CDS	3.3.47	To walls	m2	200,00	R	R
		Smooth formwork to soffits				
CDS	3.3.48	Beams propped up exceeding 3,5m and not exceeding 5m high	m2	220,00	R	R
CDS	3.3.49	Slab propped up exceeding 3,5m and not exceeding 5m high	m2	445,00	R	R
		Formwork to sloping top surfaces (pitch exceeding 35 degrees)				
CDS	3.3.50	Concrete humps/bunding, etc not exceeding 300mm wide	m	89,00	R	R
		ISOLATION JOINTS ETC				
		Joint sealants				
		Expansion joints with softboard between vertical concrete surfaces				
CDS	3.3.51	Silicone sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	130,00	R	R
CDS	3.3.52	Polysulphide sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	130,00	R	R
		Saw cut joints				
CDS	3.3.53	50 x 3mm Saw cut joints in top of concrete reamed out to 8mm including 10mm diameter backing cord and 8mm wide x 13mm deep "Dow Corning 813C" silicone sealant or equal approved	m	130,00	R	R
		REINFORCEMENT (PROVISIONAL)				
		Mild tensile steel reinforcement to structural concrete work				
CDS	3.3.54	25mm Diameter bars	ton	1,00	R	R
CDS	3.3.55	20mm Diameter bars	ton	2,00	R	R
CDS	3.3.56	16mm Diameter bars	ton	2,00	R	R
CDS	3.3.57	12mm Diameter bars	ton	2,00	R	R
CDS	3.3.58	10mm Diameter bars	ton	2,00	R	R
CDS	3.3.59	8mm Diameter bars	ton	2,00	R	R
		High tensile steel reinforcement to structural concrete work				
CDS	3.3.60	25mm Diameter bars	ton	1,00	R	R
CDS	3.3.61	20mm Diameter bars	ton	1,00	R	R
CDS	3.3.62	16mm Diameter bars	ton	2,00	R	R
CDS	3.3.63	12mm Diameter bars	ton	2,00	R	R
CDS	3.3.64	10mm Diameter bars	ton	2,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.4				
		MASONRY				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		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				
		Hollow walls				
		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				
		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				
		<u>Brickwork of NFX clay bricks (14 MPa nominal compressive strength) in class II mortar in stretcher bond</u>				
CDS	3.4.1	Piers	m3	10,00	R	R
CDS	3.4.2	Half brick walls	m2	400,00	R	R
CDS	3.4.3	One brick walls	m2	450,00	R	R
CDS	3.4.4	Cavity walls - Made up of Two half brick skins	m2	220,00	R	R
CDS	3.4.5	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	220,00	R	R
CDS	3.4.6	280mm Hollow walls of two half brick skins circular on plan with cavities filled in with and including 25MPa/20mm concrete (elsewhere)	m2	170,00	R	R
CDS	3.4.7	Cutting toothings and bonding new brickwork to existing	m	90,00	R	R
		<u>Brickwork in Stock clay bricks (7 Mpa nominal strength) in class II mortar in stretcher bond</u>				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS 3.4.8	Piers	m3	10,00	R	R
CDS 3.4.9	Half brick walls	m2	1000,00	R	R
CDS 3.4.10	One brick walls	m2	1270,00	R	R
CDS 3.4.11	Cavity walls - Made up of two half brick skins	m2	600,00	R	R
CDS 3.4.12	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	600,00	R	R
CDS 3.4.13	280mm Hollow walls of two half brick skins circular on plan with cavities filled in with and including 25MPa/20mm concrete	m2	600,00	R	R
CDS 3.4.14	Cutting toothings and bonding new brickwork to existing	m	430,00	R	R
	FACE BRICKWORK				
	<u>Provide the prime cost of R 9 600.00 per thousand face bricks delivered to site pointed with flush horizontal and vertical joints</u>				
CDS 3.4.15	Extra over brickwork for face brickwork in foundation walls, ramp, etc	m2	170,00	R	R
CDS 3.4.16	Extra over brickwork for face brickwork	m2	300,00	R	R
CDS 3.4.17	Half brick face brick walls in class II mortar pointed on both sides	m2	260,00	R	R
CDS 3.4.18	Fair cutting and fitting around pipe not exceeding 100mm external diameter	No	40,00	R	R
CDS 3.4.19	Fair cutting and fitting around pipe exceeding 100mm and not exceeding 200mm external diameter	No	40,00	R	R
	Steel bar reinforcement				
CDS 3.4.20	8mm Diameter mild steel bars built in horizontally	ton	1,00	R	R
	Prestressed precast lintels				
CDS 3.4.21	110 x 75mm Lintels in lengths not exceeding 3m	m	220,00	R	R
CDS 3.4.22	110 x 75mm Lintels exceeding 3,0m but not exceeding 4,5m	m	130,00	R	R
	Fabric Reinforcement				
CDS 3.4.23	75mm Galvanised brickforce suitable for half brick walls	m	1290,00	R	R
CDS 3.4.24	150mm Galvanised brickforce suitable for one brick walls	m	1290,00	R	R
	Galvanised hoop iron cramps, ties, etc				
CDS 3.4.25	30 x 1,6mm Roof tie 1500mm long with one end fixed to timber and other end built into brickwork	No	90,00	R	R
	Bagging of 1:3 cement and sand mixture				
CDS 3.4.26	On brick walls	m2	260,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.5				
		WATERPROOFING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Waterproofing				
		Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
		DAMPPROOFING OF WALLS AND FLOORS				
		One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course				
CDS	3.5.1	In walls	m2	430,00	R	R
		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
CDS	3.5.2	Under surface beds, etc	m2	1290,00	R	R
		Three coats paint sealer "plascon wallseal" or equal approved without membrane				
CDS	3.5.3	On parapet walls	m2	430,00	R	R
		Two coats "Brixéal" or equal approved bitumen emulsion waterproof coating				
CDS	3.5.4	On walls	m2	430,00	R	R
		JOINT SEALANTS ETC				
		<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
CDS	3.5.5	In joints between window or door frames and concrete or brickwork	m	90,00	R	R
		WATERPROOFING TO ROOFS ETC				
		TORCH-ON WATERPROOFING				
		<u>4mm Thick "Derbigum SP4" or similar approved waterproofing membrane including laps, turn-ups, turndowns, etc and preparing and priming concrete or screeded surfaces laid in accordance with the manufacturers instruction</u>				
CDS	3.5.6	On flat roofs / floors.	m2	865,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS 3.5.7	On turn-ups and turn-downs exceeding 300mm girth	m2	40,00	R	R
CDS 3.5.8	On sloping roofs	m2	860,00	R	R
CDS 3.5.9	On tops and sides of inverted beams	m2	170,00	R	R
CDS 3.5.10	On bottoms and sides of floor ducts, channels, etc	m2	170,00	R	R
CDS 3.5.11	On bottoms and sides of box gutters	m2	170,00	R	R
CDS 3.5.12	On bottoms and sides of plant boxes	m2	90,00	R	R
CDS 3.5.13	Sealing edges to brickwork or concrete	m	90,00	R	R
CDS 3.5.14	Sealing edges to brickwork or concrete including trowelled mastic bead	m	90,00	R	R
CDS 3.5.15	Additional membrane 300mm girth at internal and external angles	m	90,00	R	R
CDS 3.5.16	Dressing and sealing around pipe not exceeding 200mm external diameter, including additional membrane, gussets, collars, etc	No	40,00	R	R
CDS 3.5.17	On internal surfaces of 300 x 300 x 300mm deep sump, catchpit, etc	No	20,00	R	R
CDS 3.5.18	On concrete flat roofs including all turn-ups and turndowns and sealing edges where required.	m2	430,00	R	R
	PROTECTIVE STONE DRESSING				
	<u>19mm Crushed stone dressing evenly spread with larger stones around outlets</u>				
CDS 3.5.19	25mm Thick on waterproofing to flat roofs	m2	430,00	R	R
	PROTECTIVE ROOFING PAINT				
	<u>Two coats "Silvakote" or similar approved bituminous aluminium paint</u>				
CDS 3.5.20	On waterproofing to roofs	m2	430,00	R	R
CDS 3.5.21	On inside of existing box gutters	m2	430,00	R	R
	PROTECTIVE ROOFING SHEETING				
	<u>Type 40 bituminous fibreglass felt laid loose</u>				
CDS 3.5.22	On waterproofing to roofs	m2	130,00	R	R
	WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC				
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
CDS 3.5.23	6 x 10mm In saw cut joints in floors	m	90,00	R	R
CDS 3.5.24	6 x 10mm In expansion joints in tiled walls etc	m	90,00	R	R
CDS 3.5.25	10 x 15mm In expansion joints in tiled floors etc	m	90,00	R	R
CDS 3.5.26	10 x 15mm In expansion joints in floors including raking out expansion joint filler as necessary	m	90,00	R	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.6				
	CARPENTRY & JOINERY				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	<u>Description</u>				
	The term "planted on" shall mean the countersunk screwing of one timber member to another with the heads of screws sunk and pelleted.				
	The term "plugged" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screws sunk and pelleted				
	Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing				
	Descriptions of floors, ceilings, joinery, etc shall be deemed to include for all square cutting				
	Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.				
	Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc				
	DOORS, ETC				
	<u>Semi-solid flush panel doors with commercial veneer both sides suitable for painting and hung to steel, aluminium, timber frames</u>				
CDS 3.6.1	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	100,00	R	R
CDS 3.6.2	Provide the prime cost of R 3 500.00 per Double door in two equal leaves with rebated meeting stiles including hinges.	No	100,00	R	R
	<u>40mm Thick semi-solid flush panel doors with sapele hardwood veneer both sides suitable for varnish</u>				
CDS 3.6.3	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	90,00	R	R
CDS 3.6.4	Provide the prime cost of R 3 500.00 per Double door in two equal leaves with rebated meeting stiles including hinges.	No	91,00	R	R
	<u>44mm Thick solid door suitable for varnish or painting and hung to steel, aluminium or timber frames</u>				
CDS 3.6.5	Provide the prime cost of R 3000.00 per door leaf & hinges for single door openings	No	120,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.6.6	Provide the prime cost of R 6 500.00 per Double door in two equal leaves with rebated meeting stiles including hinges.	No	120,00	R	R
		"Bitcon Industries" or similar approved Class A 1 hour fire rating hinged fire doors from 1,6mm thick pressed steel frames				
CDS	3.6.7	Provide the prime cost of R 5000.00 for Class A fire door for single door opening including single rebated pressed steel frame for 115mm brick wall, hinges and preparing frame for door closer and lock	No	40,00	R	R
CDS	3.6.8	Provide the prime cost of R 8 500.00 for Class A fire double door for double door opening including double rebated pressed steel frame for 230mm brick wall, hinges and preparing frame for door closer and lock	No	40,00	R	R
		"Bitcon Industries" or similar approved Class B 2 hour fire rating hinged fire doors from 1,6mm thick pressed steel frames				
CDS	3.6.9	Provide the prime cost of R 6 500.00 for Class B fire door for single door opening including single rebated pressed steel frame for 115mm brick wall, hinges and preparing frame for door closer and lock	No	40,00	R	R
CDS	3.6.10	Provide the prime cost of R 12 500.00 for Class B fire double door for double door opening including double rebated pressed steel frame for 230mm brick wall, hinges and preparing frame for door closer and lock	No	40,00	R	R
		<u>Materials & Plant</u>				
CDS	3.6.11	Provision for Sundry Materials & Plant	Prov	1,00	R 108 425,00	R 108 425,00
CDS	3.6.12	Allow for profit & attendance if required	%		R 108 425,00	R
		Provisional Sum				
CDS	3.6.13	Sundry Carpentry & Joinery Works	Sum	1,00	R 108 425,00	R 108 425,00
CDS	3.6.14	Allow for profit & attendance if required	%		R 108 425,00	R
		CARRIED TO SECTION SUMMARY				R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.7				
		CEILINGS, PARTITIONS & ACCESS FLOORING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		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.				
		Ceilings				
		Unless otherwise described ceilings shall be deemed to be horizontal				
		Bulkheads				
		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. The 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				
		Steel components				
		All steel components for ceilings, partitions, etc are to be galvanized in accordance with SANS 121				
		SUSPENDED CEILINGS				
		9mm "Rhino" gypsum plasterboard with taped and skimmed joints				
CDS	3.7.1	Ceilings installed using propriety framing system all according to manufacturers specifications	m2	488,00	R	R
CDS	3.7.2	Vertical ceilings installed using propriety framing system all according to manufacturers specifications	m2	430,00	R	R
CDS	3.7.3	Horizontal bulkheads installed using propriety framing system all according to manufacturers specifications	m2	430,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		600 x 1200mm panels on pre painted (pre-coated) suspension system including main and cross tees necessary hangers, grids, etc				
		<u>Provide the prime cost of R 400.00/m2 for suspended ceiling system</u>				
CDS	3.7.4	Ceilings suspended below soffits	m2	520,00	R	R
CDS	3.7.5	Horizontal bulkheads suspended below concrete soffits	m2	430,00	R	R
CDS	3.7.6	Sloping bulkheads suspended below concrete soffits	m2	430,00	R	R
CDS	3.7.7	Extra over ceiling for opening for sprinkler head	No	90,00	R	R
CDS	3.7.8	Extra over ceiling for opening for down lighter	No	90,00	R	R
CDS	3.7.9	Extra over ceiling for 600 x 1 200mm light fitting	No	90,00	R	R
		600mm x 600mm panels on pre painted (pre-coated) exposed tee suspension system				
		<u>Provide the prime cost of R 400.00/m2 for suspended ceiling system</u>				
CDS	3.7.10	Ceilings suspended below soffits	m2	520,00	R	R
CDS	3.7.11	Horizontal bulkheads suspended below concrete soffits	m2	430,00	R	R
CDS	3.7.12	Sloping bulkheads suspended below concrete soffits	m2	430,00	R	R
CDS	3.7.13	Extra over ceiling for opening for sprinkler head	No	90,00	R	R
CDS	3.7.14	Extra over ceiling for opening for down lighter	No	90,00	R	R
CDS	3.7.15	Extra over ceiling for 600 x 600mm light fitting	No	90,00	R	R
		Cornices to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for cornices</u>				
CDS	3.7.16	Pre-painted / coated cornices plugged	m	260,00	R	R
		Shadowline to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for shadowline trim</u>				
CDS	3.7.17	Pre-painted / coated shadowline trim fixed	m	260,00	R	R
		Insulation				
CDS	3.7.18	Isotherm 100mm thick polyester thermal ceiling insulation laid on ceilings (measured nett)	m2	860,00	R	R
		PARTITIONS				
		<u>"76mm wide Rhino-Drywall System " steel stud partitioning with "12mm thick Rhino Wall board" on both sides including skirtings and top track all as per manufacturers specifications</u>				
CDS	3.7.19	Partitioning up to 2 600mm high with bottom and top tracks plugged	m2	600,00	R	R
CDS	3.7.20	Partitioning up to 2 900mm high with bottom and top tracks plugged	m2	520,00	R	R
CDS	3.7.21	Partitioning up to 3 500mm high with bottom and top tracks plugged	m2	430,00	R	R
		DOORS				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		SECTION 3					
		BUILDING WORKS					
		BILL NO.8					
		FLOOR COVERINGS, WALL LININGS, ETC					
		PREAMBLES					
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)					
		SUPPLEMENTARY PREAMBLES					
		Fixing					
		Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc					
		Surface preparation, priming, curing, cleaning etc					
		Descriptions of the items below are deemed to include all necessary preparation, priming, mixing, curing, cleaning etc as prescribed by the manufacturers of the various products					
		FLOOR COVERINGS					
		<u>Provide the prime cost amount of R500.00 per m2 for supply and delivery of vinyl floor finishes laid with approved adhesive on screeds in accordance with manufacturers instructions</u>					
CDS	3.8.1	On floors	m2	820,00	R		R
CDS	3.8.2	On treads and risers of stairs	m2	260,00	R		R
		<u>High traffic epoxy floor paint 2.5 to 3mm thick as per specialists specifications</u>					
CDS	3.8.3	On floors	m2	858,00	R		R
		<u>Provide the prime cost amount of R500.00 per m2 for supply and delivery of carpet tiles laid with approved adhesive in accordance with manufacturers instructions</u>					
CDS	3.8.4	On floors	m2	820,00	R		R
CDS	3.8.5	On treads and risers of stairs	m2	260,00	R		R
		Materials & Plant					
CDS	3.8.6	Provision for Sundry Materials & Plant	Prov	1,00	R	54 200,00	R 54 200,00
CDS	3.8.7	Allow for profit & attendance if required	%		R	54 200,00	R
		Provisional Sum					
CDS	3.8.8	Sundry Floor Coverings Wall Linings etc Works	Sum	1,00	R	54 200,00	R 54 200,00
CDS	3.8.9	Allow for profit & attendance if required	%		R	54 200,00	R
		CARRIED TO SECTION SUMMARY					R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.9				
	IRONMONGERY				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	General				
	Corrosion proof ironmongery shall be provided as far as possible and shall be fitted by professional carpenter				
	Proprietary items				
	Where applicable the manufacturers' names or product catalogue titles are given in sub-heading preceding the items				
	Prices are to be based on the specific products/articles specified. If tenders 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 employer's representative 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				
	LOCKS, ETC				
	<u>Provide the prime cost amount of R750.00 each for cylinder locksets installed complete</u>				
CDS 3.9.1	On single doors	No	350,00	R	R
CDS 3.9.2	On double doors	No	170,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	HINGES, BOLTS, ETC				
	<u>Hinges</u>				
CDS 3.9.3	Provide the prime cost amount of R350.00 for 100 x 75mm butt hinges (per pair) installed complete	No	650,00	R	R
	PUSH PLATES AND KICKING PLATES				
	<u>Push plates, kick plates etc</u>				
CDS 3.9.4	Provide the prime cost amount of R750.00 each for Push Plates & Kick Plates installed complete	No	169,00	R	R
	DOOR CLOSERS				
	<u>Door Closers</u>				
CDS 3.9.5	Provide the prime cost amount of R3000.00 each for door closers installed complete	No	349,00	R	R
	<u>Panic Bolts etc</u>				
CDS 3.9.6	Provide the prime cost amount of R2500.00 each for panic bolts for single doors installed complete	No	90,00	R	R
CDS 3.9.7	Provide the prime cost amount of R5500.00 each for panic bolts for double doors installed complete	No	40,00	R	R
	HANDLES				
	<u>Handles etc</u>				
CDS 3.9.8	Provide the prime cost amount of R1000.00 each for door handles installed complete	No	300,00	R	R
	CATCHES, CABIN HOOKS, ETC				
	<u>Cabin Hooks etc</u>				
CDS 3.9.9	Provide the prime cost amount of R300.00 each for cabin & coat hooks installed complete	No	40,00	R	R
	BATHROOM FITTINGS				
	<u>Toilet Roll Holder</u>				
CDS 3.9.10	Provide the prime cost amount of R1000.00 each for toilet roll holder plugged to brickwork.	No	90,00	R	R
	<u>Soap Dispenser</u>				
CDS 3.9.11	Provide the prime cost amount of R1000.00 each for soap dispenser plugged to brickwork.	No	90,00	R	R
	<u>Stainless Steel Grab Rail</u>				
CDS 3.9.12	Provide the prime cost amount of R1000.00 each for stainless steel grab rails plugged to brickwork.	No	30,00	R	R
	SUNDRIES				
	"Solid"				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		SECTION 3					
		BUILDING WORKS					
		BILL NO.10					
		METALWORK					
		PREAMBLES					
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)					
		SUPPLEMENTARY PREAMBLES					
		Descriptions of bolts, anchors, etc					
		Descriptions of bolts shall be deemed to include nuts and washers					
		Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete					
		Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described					
		Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres					
		DOOR FRAMES, DOORS, ETC					
		Galvinised pressed steel door frames					
		<u>1,6mm Thick single rebated heavy duty frame for half brick wall complete with butt hinges and including setting up, building in, filling back of frame with cement mortar, etc</u>					
CDS	3.10.1	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	430,00	R		R
CDS	3.10.2	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	260,00	R		R
		<u>1,6mm Thick single rebated heavy duty frame for one brick wall complete with butt hinges and including setting up, building in, filling back of frame with cement mortar, etc</u>					
CDS	3.10.3	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	430,00	R		R
CDS	3.10.4	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	260,00	R		R
		<u>Materials & Plant</u>					
CDS	3.10.5	Provision for Sundry Materials & Plant	Prov	1,00	R	658 289,00	R 658 289,00
CDS	3.10.6	Allow for profit & attendance if required	%		R	658 289,00	R
		<u>Provisional Sum</u>					
CDS	3.10.7	Sundry Metalworks	Sum	1,00	R	658 289,00	R 658 289,00
CDS	3.10.8	Mark up provision on sundry Metalworks	%		R	658 289,00	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.11				
	PLASTERING				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	Granolithic				
	Method				
	The method to be used shall be either the monolithic method or the bonded method				
	Preparation				
	For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic				
	Mix				
	Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic				
	Panels				
	Granolithic shall be laid in panels not exceeding 14m ² for monolithic finishes, not exceeding 9,5m ² for bonded finishes and not exceeding 6m ² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width				
	Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints				
	Laying				
	Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
		After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated				
		Curing, seasoning and protection				
		Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying				
		Colour				
		Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour				
		CEMENT SCREED				
		Preparation				
		Screed to be steel trowelled, no dry mix allowed. Screeds to be level and even with high points ground down. Test samples to be provided of screeds. Moisture content to be checked with hydrometer (moisture not to exceed 75%) or tramex meter (moisture not to exceed 60%). Reading to be taken on average of every 30m. Test samples of screed to be provided. Where applicable, screed to falls to floor drain.				
		Mix				
		1:3 Cement/sand screed mix (SABS 471 and 1083 approved) level 1 standard, 25mpa.				
		SCREED				
		Screed to falls				
		<u>Screeds wood floated, on concrete</u>				
CDS	3.11.1	25mm Thick on floors and landings	m2	1290,00	R	R
CDS	3.11.2	30mm Thick on floors and landings	m2	430,00	R	R
CDS	3.11.3	30mm Thick on floors on waterproofing membrane	m2	350,00	R	R
CDS	3.11.4	Average 30mm thick on floors with upper surface to falls	m2	130,00	R	R
CDS	3.11.5	Average 30mm thick on floors with upper surface to falls and currents	m2	130,00	R	R
CDS	3.11.6	Average 40mm thick on roofs with upper surface to falls	m2	130,00	R	R
CDS	3.11.7	Average 40mm thick on roofs with upper surface to falls and currents	m2	130,00	R	R
CDS	3.11.8	25mm Thick on treads and risers of stairs including reedings	m2	130,00	R	R
CDS	3.11.9	30mm Thick on treads and risers of stairs	m2	130,00	R	R
CDS	3.11.10	30mm Thick on narrow widths not exceeding 300mm wide	m2	130,00	R	R
CDS	3.11.11	Reedings in finish on ramps	m2	130,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.11.12	50 x 50mm Triangular fillets against walls, kerbs, etc	m	130,00	R	R
		<u>Screeds steel trowelled, on concrete</u>				
CDS	3.11.13	25mm Thick on floors and landings	m2	1290,00	R	R
CDS	3.11.14	30mm Thick on floors and landings	m2	430,00	R	R
CDS	3.11.15	30mm Thick on floors on waterproofing membrane	m2	350,00	R	R
CDS	3.11.16	Average 30mm thick on floors with upper surface to falls	m2	130,00	R	R
CDS	3.11.17	Average 30mm thick on floors with upper surface to falls and currents	m2	130,00	R	R
CDS	3.11.18	Average 40mm thick on roofs with upper surface to falls	m2	130,00	R	R
CDS	3.11.19	Average 40mm thick on roofs with upper surface to falls and currents	m2	130,00	R	R
CDS	3.11.20	25mm Thick on treads and risers of stairs including reedings	m2	130,00	R	R
CDS	3.11.21	30mm Thick on treads and risers of stairs	m2	130,00	R	R
CDS	3.11.22	30mm Thick on narrow widths not exceeding 300mm wide	m2	130,00	R	R
CDS	3.11.23	Reedings in finish on ramps	m2	130,00	R	R
CDS	3.11.24	50 x 50mm Triangular fillets against walls, kerbs, etc	m2	130,00	R	R
		GRANOLITHIC				
		<u>Untinted granolithic on concrete</u>				
CDS	3.11.25	25mm Thick on floors and landings	m2	860,00	R	R
CDS	3.11.26	30mm Thick on floors and landings	m2	430,00	R	R
CDS	3.11.27	50mm Thick on floors and landings	m2	350,00	R	R
CDS	3.11.28	Average 30mm thick on floors with upper surface to falls	m2	130,00	R	R
CDS	3.11.29	Average 30mm thick on floors with upper surface to falls and currents	m2	130,00	R	R
CDS	3.11.30	Average 40mm thick on roofs with upper surface to falls	m2	130,00	R	R
CDS	3.11.31	Average 40mm thick on roofs with upper surface to falls and currents	m2	130,00	R	R
CDS	3.11.32	25mm Thick on treads and risers of stairs including reedings	m2	130,00	R	R
CDS	3.11.33	30mm Thick on treads and risers of stairs	m2	130,00	R	R
CDS	3.11.34	30mm Thick on narrow widths not exceeding 300mm wide	m2	130,00	R	R
CDS	3.11.35	Reedings in finish on ramps	m2	130,00	R	R
CDS	3.11.36	Skirtings 100mm high	m	130,00	R	R
CDS	3.11.37	Skirtings 100mm high stepped over treads and risers	m	130,00	R	R
		EXTERNAL PLASTER				
		Class I cement plaster on brickwork				
CDS	3.11.38	On walls	m2	2000,00	R	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.12				
	TILING				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	Fixing				
	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 adhesives and grouts from the "tal Goldstar" range or equal approved.				
	WALL TILING				
	<u>Provide the prime cost amount of R 500.00 per m2 for ceramic wall tiles fixed with adhesive to:</u>				
CDS 3.12.1	On walls	m2	860,00	R	R
CDS 3.12.2	On narrow widths	m2	260,00	R	R
	<u>Provide the prime cost amount of R 500.00 per m2 for porcelain wall tiles fixed with adhesive to:</u>				
CDS 3.12.3	On walls	m2	860,00	R	R
CDS 3.12.4	On narrow widths	m2	260,00	R	R
	FLOOR TILING				
	<u>Provide the prime cost amount of R 500.00 per m2 for ceramic floor tiles fixed with adhesive to:</u>				
CDS 3.12.5	On floors	m2	1300,00	R	R
CDS 3.12.6	On narrow widths	m2	258,00	R	R
CDS 3.12.7	On floors landings in patterns	m2	429,00	R	R
	<u>Provide the prime cost amount of R 500.00 per m2 for porcelain floor tiles fixed with adhesive to:</u>				
CDS 3.12.8	On floors	m2	1300,00	R	R
CDS 3.12.9	On narrow widths	m2	260,00	R	R
CDS 3.12.10	On floors landings in patterns	m2	430,00	R	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.13				
	PLUMBING & DRAINAGE				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	Wire gratings				
	Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings				
	Stormwater channels				
	Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site				
	Stainless steel basins, sinks, wash troughs, urinals, etc				
	Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0)				
	Stainless steel for basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8)				
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable				
	Sealing of edges				
	Outer edges of sinks, basins,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				
	High density polyethylene (HDPE) pipes and fittings				
	Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Copper pipes				
	Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and antisiphon 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				
	Reducing fittings				
	Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained				
	Fixing of pipes				
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level				
	Paper wrapping to pipes				
	Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings				
	Disinfection of water pipework				
	Water pipework is to be disinfected at completion in accordance with SABS 1200L				
	"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 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				
	Laying, backfilling, bedding, etc of pipes				
	Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
	Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
	Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
	Unless otherwise described bedding of rigid pipes shall be Class B bedding				
	General				
	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)				
	Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends				
	Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction and disposal of surplus material on site				
	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)				
	Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes				
	As-built drawings				
	Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract/package the contractor shall hand these drawings to the employer's representative for reproducing onto the originals for handing over to the employer				
	SANITARY FITTINGS				
	NOTE:				
	All fittings butting up against wall or floor finishes or fitting into preformed openings in timber tops are to be sealed with an approved all purpose silicone sealant				
	Prices for sinks described as drop in are to include for preparing the worktop to receive the fitting and securely fixing sinks to worktops using clips provided. The contractor is to provide worktop manufacturers with details of cut outs to ensure that the cut openings are sufficiently accurate to provide proper engagement for these clips				
	Note: Stainless steel for urinals, basins, sinks, etc, shall be type 304 (18/8)				
	304 Stainless Steel				
	<u>Provide the prime cost amount of R 1800.00 each for wash troughs:</u>				
CDS 3.13.1	Single bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
CDS	3.13.2	Double bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	30,00	R	R
		Sinks				
		<u>Provide the prime cost amount of R 1800.00 each for sinks:</u>				
CDS	3.13.3	Stainless steel single end bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	40,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
CDS	3.13.4	Stainless steel double bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	30,00	R	R
		<u>Wash hand basin</u>				
CDS	3.13.5	Provide the prime cost amount of R 2200.00 each for wall mounted basin	No	30,00	R	R
		<u>Wash hand basin "Paraplegic"</u>				
CDS	3.13.6	Provide the prime cost amount of R 2200.00 each for wall mounted paraplegic basin	No	20,00	R	R
		<u>Urinals</u>				
CDS	3.13.7	Provide the prime cost amount of R 5000.00 each for wall mounted urinals	No	30,00	R	R
		Toilets etc				
CDS	3.13.8	Provide the prime cost amount of R 4000.00 each for toilets installed complete	No	60,00	R	R
CDS	3.13.9	Provide the prime cost amount of R 5000.00 each for paraplegic toilets installed complete		30,00	R	R
		WASTE UNIONS ETC				
		<u>"Cobra Watertech" or equal approved</u>				
CDS	3.13.10	40mm Wash trough waste	No	130,00	R	R
		TRAPS ETC				
		PVC				
CDS	3.13.11	Rubber waste reseal "P" 32x40mm (basin)	No	130,00	R	R
		TAPS, VALVES, ETC				
		Taps, showers etc				
CDS	3.13.12	Provide the prime cost amount of R 2000.00 each for taps and sink mixers	No	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.13.13	Provide the prime cost amount of R 1500.00 each for shower heads	No	30,00	R	R
CDS	3.13.14	Provide the prime cost amount of R 2000.00 each for shower mixers	No	30,00	R	R
CDS	3.13.15	22mm Brass Non-return valve	No	40,00	R	R
		SANITARY PLUMBING				
		uPVC soil and vent pipes				
CDS	3.13.16	40mm Diameter Pipes	m	190,00	R	R
CDS	3.13.17	50mm Diameter Pipes	m	190,00	R	R
CDS	3.13.18	75mm Diameter Pipes	m	190,00	R	R
CDS	3.13.19	110mm Diameter Pipes	m	190,00	R	R
		Extra over uPVC soil and vent pipes for fittings				
CDS	3.13.20	40mm Bend	No	60,00	R	R
CDS	3.13.21	40mm Inspection bend	No	60,00	R	R
CDS	3.13.22	40mm Junction	No	60,00	R	R
CDS	3.13.23	50mm BSP adaptor	No	60,00	R	R
CDS	3.13.24	50mm Bend	No	60,00	R	R
CDS	3.13.25	50mm Inspection bend	No	60,00	R	R
CDS	3.13.26	50mm Junction	No	60,00	R	R
CDS	3.13.27	50mm Access bend	No	60,00	R	R
CDS	3.13.28	50mm vent valve	No	60,00	R	R
CDS	3.13.29	50mm Two way vent valve	No	60,00	R	R
CDS	3.13.30	50mm Inspection junction	No	60,00	R	R
CDS	3.13.31	75mm Bend	No	60,00	R	R
CDS	3.13.32	75mm Inspection bend	No	60,00	R	R
CDS	3.13.33	75mm Junction	No	60,00	R	R
CDS	3.13.34	75mm Inspection junction	No	60,00	R	R
CDS	3.13.35	75mm Reducing junction	No	60,00	R	R
CDS	3.13.36	75mm Inspection reducing junction	No	60,00	R	R
CDS	3.13.37	75mm Reducer	No	60,00	R	R
CDS	3.13.38	110mm Bend	No	60,00	R	R
CDS	3.13.39	110mm Inspection bend	No	60,00	R	R
CDS	3.13.40	110mm Junction	No	60,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.13.41	110mm Inspection junction	No	60,00	R	R
CDS	3.13.42	110mm Reducing junction	No	60,00	R	R
CDS	3.13.43	110mm Inspection reducing junction	No	60,00	R	R
CDS	3.13.44	110mm Reducer	No	60,00	R	R
CDS	3.13.45	110mm Pan connector	No	60,00	R	R
CDS	3.13.46	110mm Two way vent valve	No	60,00	R	R
		Testing				
CDS	3.13.47	Testing waste pipe system	Item	1,00	R	R
		WATER SUPPLIES				
		Class 0 copper pipes with brass compression couplings				
CDS	3.13.48	15mm Pipes	m	190,00	R	R
CDS	3.13.49	15mm Pipes chased into brickwork or concrete	m	190,00	R	R
CDS	3.13.50	22mm Pipes	m	190,00	R	R
CDS	3.13.51	22mm Pipes chased into brickwork or concrete	m	190,00	R	R
CDS	3.13.52	28mm Pipes	m	190,00	R	R
CDS	3.13.53	28mm Pipes chased into brickwork or concrete	m	190,00	R	R
CDS	3.13.54	35mm Pipes	m	190,00	R	R
CDS	3.13.55	35mm Pipes chased into brickwork or concrete	m	190,00	R	R
CDS	3.13.56	42mm Pipes	m	190,00	R	R
CDS	3.13.57	54mm Pipes	m	190,00	R	R
CDS	3.13.58	67mm Pipes	m	190,00	R	R
CDS	3.13.59	76mm Pipes	m	190,00	R	R
CDS	3.13.60	108mm Pipes	m	190,00	R	R
		Extra over Class 0 copper pipes for capillary fittings				
CDS	3.13.61	15mm Fittings	No	60,00	R	R
CDS	3.13.62	22mm Fittings	No	60,00	R	R
CDS	3.13.63	28mm Fittings	No	60,00	R	R
CDS	3.13.64	35mm Fittings	No	60,00	R	R
CDS	3.13.65	42mm Fittings	No	60,00	R	R
CDS	3.13.66	54mm Fittings	No	60,00	R	R
CDS	3.13.67	67mm Fittings	No	60,00	R	R
CDS	3.13.68	76mm Fittings	No	60,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.13.69	108mm Fittings	No	60,00	R	R
		Extra over Class 0 copper pipes for brass compression fittings				
CDS	3.13.70	15mm Fittings	No	60,00	R	R
CDS	3.13.71	22mm Fittings	No	60,00	R	R
CDS	3.13.72	28mm Fittings	No	60,00	R	R
CDS	3.13.73	35mm Fittings	No	60,00	R	R
CDS	3.13.74	42mm Fittings	No	60,00	R	R
CDS	3.13.75	54mm Fittings	No	60,00	R	R
CDS	3.13.76	67mm Fittings	No	60,00	R	R
CDS	3.13.77	76mm Fittings	No	60,00	R	R
CDS	3.13.78	108mm Fittings	No	60,00	R	R
		Class 12.5 "HDPE" Pipes				
CDS	3.13.79	20mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	190,00	R	R
CDS	3.13.80	32mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	190,00	R	R
CDS	3.13.81	40mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	190,00	R	R
CDS	3.13.82	50mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	190,00	R	R
CDS	3.13.83	75mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	190,00	R	R
CDS	3.13.84	90mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	190,00	R	R
CDS	3.13.85	110mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	190,00	R	R
		Extra over "HDPE" for fittings				
CDS	3.13.86	20mm Diameter Straight Coupling	No	60,00	R	R
CDS	3.13.87	20mm Diameter Reducing Coupling	No	60,00	R	R
CDS	3.13.88	20mm Diameter Equal Tee	No	60,00	R	R
CDS	3.13.89	20mm Diameter Male Adaptor	No	60,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	3.13.90	20mm Diameter 90 Degree Elbow	No	60,00	R	R
CDS	3.13.91	40mm Diameter Straight Coupling	No	60,00	R	R
CDS	3.13.92	40mm Diameter Reducing Coupling	No	60,00	R	R
CDS	3.13.93	40mm Diameter Equal Tee	No	60,00	R	R
CDS	3.13.94	40mm Diameter Male Adaptor	No	60,00	R	R
CDS	3.13.95	40mm Diameter 90 Degree Elbow	No	60,00	R	R
CDS	3.13.96	50mm Diameter Straight Coupling	No	60,00	R	R
CDS	3.13.97	50mm Diameter Reducing Coupling	No	60,00	R	R
CDS	3.13.98	50mm Diameter Equal Tee	No	60,00	R	R
CDS	3.13.99	50mm Diameter Male Adaptor	No	60,00	R	R
CDS	3.13.100	50mm Diameter 90 Degree Elbow	No	60,00	R	R
CDS	3.13.101	75mm Diameter Straight Coupling	No	60,00	R	R
CDS	3.13.102	75mm Diameter Reducing Coupling	No	60,00	R	R
CDS	3.13.103	75mm Diameter Equal Tee	No	60,00	R	R
CDS	3.13.104	75mm Diameter Male Adaptor	No	60,00	R	R
CDS	3.13.105	75mm Diameter 90 Degree Elbow	No	60,00	R	R
CDS	3.13.106	90mm Diameter Straight Coupling	No	60,00	R	R
CDS	3.13.107	90mm Diameter Reducing Coupling	No	60,00	R	R
CDS	3.13.108	90mm Diameter Equal Tee	No	60,00	R	R
CDS	3.13.109	90mm Diameter Male Adaptor	No	60,00	R	R
CDS	3.13.110	90mm Diameter 90 Degree Elbow	No	60,00	R	R
CDS	3.13.111	110mm Diameter Straight Coupling	No	60,00	R	R
CDS	3.13.112	110mm Diameter Reducing Coupling	No	60,00	R	R
CDS	3.13.113	110mm Diameter Equal Tee	No	60,00	R	R
CDS	3.13.114	110mm Diameter Male Adaptor	No	60,00	R	R
CDS	3.13.115	110mm Diameter 90 Degree Elbow	No	60,00	R	R
		ELECTRIC WATER HEATERS				
		<u>"Kwikot" or similar approved including all fittings, adaptors, couplings, etc, for connection to the relevant piping.</u>				
CDS	3.13.116	Provide the prime cost amount of R 3000.00 each for undercounter geysers	No	31,00	R	R
CDS	3.13.117	Provide the prime cost amount of R 7000.00 each for 100 litre geysers	No	30,00	R	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.14				
	PAINTWORK				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	PREPARATORY WORK TO EXISTING WORK				
	Previously painted plastered surfaces				
	Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
	Previously painted wood surfaces				
	Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
	Paintwork to steel surfaces				
	Steel surfaces to be cleaned of all rust, scale and dirt, removed by scraping or with steel wire brush. All oil and grease shall also be removed to obtain a perfectly clean surface. After removing rust from steel, steel is to be painted with a suitable rust converter and primer. Finish with a quality, extremely durable, washable and pure acrylic emulsion enamel paint. For steel door frames, clean down with galvkleen to manufacturers specification before applying primer for galvanised iron. All door frames to be finished with a Water-Based premium quality satin finish non-drip enamel paint.				
	Paintwork to timber surfaces				
	Exposed timber trusses etc. are to be sanded down to smooth finish working in direction of grain. Apply first coat paint thinned 10 parts paint and one part water for penetration. Apply 1 to 2 further coats unthinned (depending on coverage). All to manufacturer specifications. Colour as per architects spec. Timber door surfaces must be dry, clean and free of contaminants. Sand to a smooth surface, free of loose fibres. Remove all dust prior to the application of the basecoat.				
	PAINT SPECIFICATIONS				
	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.				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		NOTE: All paint products utilised must be SABS/SANS approved. All paint products utilised must be suitable for use in commercial/industrial applications. Acceptable products include professional or trade ranges from paint manufacturers. All products utilised must be suited to the application in which it will be used. Paint utilised must perform in accordance with applicable and relevant SANS codes/standards				
		The client reserves the right to reject paint coatings / paint systems that perform poorly / fail due to inferior quality/ that are not SABS approved.				
		PAINTWORK TO NEW WORK				
		"Plascon professional range" or equal approved				
		<u>One coat "Professional Gypsum & Plaster Primer" with an overcoating time of 16 hours and finish with three coats finishing coat (Professional Superior Low Sheen acrylic emulsion paint)</u>				
CDS	3.14.1	On internal walls	m2	2000,00	R	R
CDS	3.14.2	On external walls	m2	2000,00	R	R
CDS	3.14.3	On ceilings and beams	m2	2000,00	R	R
		<u>One coat "Professional Gypsum & Plaster Primer" with an overcoating time of 16 hours and finish with three coats finishing coat (Professional Superior Matt Paint acrylic emulsion paint)</u>				
CDS	3.14.4	On partitions	m2	1290,00	R	R
CDS	3.14.5	On ceilings and cornices	m2	1290,00	R	R
CDS	3.14.6	On fascias and barge boards	m2	430,00	R	R
		<u>Apply one coat Professional Alkali resistant plaster primer and three coats Paint (Professional Superior Matt Paint)</u>				
CDS	3.14.7	On Rhinolite walls	m2	1290,00	R	R
		ON METAL				
		<u>Prime bare metal surfaces with "Superior Quality" zinc chromate and apply one undercoat and two coats paint on steel (Professional high gloss enamel paint)</u>				
CDS	3.14.8	On doors	m2	430,00	R	R
CDS	3.14.9	On door frames	m2	430,00	R	R
CDS	3.14.10	On windows	m2	430,00	R	R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>				
CDS	3.14.11	On palisade fencing	m2	860,00	R	R
CDS	3.14.12	On steel barriers	m2	430,00	R	R
CDS	3.14.13	On balustrades	m2	430,00	R	R
CDS	3.14.14	On gates, grilles, burglar screens etc.	m2	430,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ON WOOD				
		<u>One coat wood primer, one undercoat & two coats alkyd enamel paint (Professional gloss enamel paint)</u>				
CDS	3.14.15	On boarded panelling	m2	430,00	R	R
CDS	3.14.16	On boarded ceilings	m2	430,00	R	R
CDS	3.14.17	On doors	m2	430,00	R	R
CDS	3.14.18	On door frames	m2	430,00	R	R
CDS	3.14.19	On skirtings	m	430,00	R	R
		<u>Prime bare areas with "Wood Primer" and apply two coats "Timber Varnish" (High gloss wood varnish)</u>				
CDS	3.14.20	On boarded panelling	m2	430,00	R	R
CDS	3.14.21	On boarded ceilings	m2	430,00	R	R
CDS	3.14.22	On doors	m2	430,00	R	R
CDS	3.14.23	On door frames	m2	430,00	R	R
CDS	3.14.24	On skirtings	m	430,00	R	R
		STEEL ROOFS				
		<u>Prepare surface, prime bare areas with primer and apply two coats roof paint (Plascon Nuroof paint or equal approved)</u>				
CDS	3.14.25	On metal roof sheets	m2	2300,00	R	R
CDS	3.14.26	To cladding sheets	m2	860,00	R	R
		PREVIOUSLY PAINTED SURFACES				
		"Plascon professional range" or equal approved				
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
CDS	3.14.27	On internal walls	m2	2000,00	R	R
CDS	3.14.28	On external walls	m2	2000,00	R	R
CDS	3.14.29	On ceilings and beams	m2	2000,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Matt Paint)</u>				
CDS	3.14.30	On partitions	m2	1290,00	R	R
CDS	3.14.31	On ceilings and cornices	m2	1290,00	R	R
CDS	3.14.32	On fascias and barge boards	m2	430,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
CDS	3.14.33	On Rhinolite walls	m2	860,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		METAL SURFACES WITH					
		<u>Prime bare metal surfaces with "Superior Quality" zinc chromate and apply one undercoat and two coats paint on steel (Professional high gloss enamel paint)</u>					
CDS	3.14.34	Windows and door frames	m2	430,00	R		R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>					
CDS	3.14.35	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat ares)	m2	430,00	R		R
		PAINT ON WOOD					
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
CDS	3.14.36	On general surfaces	m2	430,00	R		R
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
CDS	3.14.37	On boarded panelling	m2	430,00	R		R
CDS	3.14.38	On boarded ceilings	m2	430,00	R		R
CDS	3.14.39	On doors	m2	430,00	R		R
CDS	3.14.40	On door frames	m2	430,00	R		R
CDS	3.14.41	On skirtings	m	430,00	R		R
		<u>Prepare and apply two coats "Timber Varnish" (High gloss wood varnish)</u>					
CDS	3.14.42	On boarded panelling	m2	430,00	R		R
CDS	3.14.43	On boarded ceilings	m2	430,00	R		R
CDS	3.14.44	On doors	m2	430,00	R		R
CDS	3.14.45	On door frames	m2	430,00	R		R
CDS	3.14.46	On skirtings	m	430,00	R		R
		STEEL ROOFS					
		<u>Prepare surface, prime bare areas with primer and apply two coats roof paint (Plascon Nuroof paint or equal approved)</u>					
CDS	3.14.47	On metal roof sheets	m2	2300,00	R		R
CDS	3.14.48	To cladding sheets	m2	437,00	R		R
		Materials & Plant					
CDS	3.14.49	Provision for Sundry Materials & Plant	Prov	1,00	R	135 550,00	R 135 550,00
CDS	3.14.50	Allow for profit & attendance if required	%		R	135 550,00	R
		Provisional Sum					
CDS	3.14.51	Sundry Paint Works	Sum	1,00	R	135 550,00	R 135 550,00
CDS	3.14.52	Allow for profit & attendance if required	%		R	135 550,00	R

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				CLUSTER 3		
				CDSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.1				
		ROADWORKS				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Testing of material and filling				
		Descriptions of earth filling, compaction, etc shall be deemed to include for all necessary testing required in accordance with the SABS 1200 series				
		Site preparation				
CDS	4.1.1	Trim and level terraced area and compact to set levels.	m2	1290,00	R	R
		Digging up topsoil				
CDS	4.1.2	Digging up topsoil to an average depth of 150mm and preserving for use as filling	m3	260,00	R	R
		BULK EXCAVATION, FILLING ETC				
CDS	4.1.3	Open face excavation in earth over sloping site	m3	170,00	R	R
		Excavation				
CDS	4.1.4	Excavate in earth not exceeding 1000mm deep	m3	90,00	R	R
		Keeping excavations free of water				
CDS	4.1.5	Keeping excavations free of water	Item	1,00	R	R
		Extra over all excavations for carting away				
CDS	4.1.6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	220,00	R	R
		LAYER WORK				
		<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
CDS	4.1.7	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	60,00	R	R
		<u>Filling supplied by the contractor under parking areas, roadways, etc</u>				
CDS	4.1.8	25mm thick clean, dry river sand layer treated with an approved weed killer at a rate of 50 grams per square metre, spread and levelled to receive paving blocks (elsewhere)	m2	430,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CDS	4.1.9	G8 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.10	G7 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.11	G7 Gravel-soil material in 150mm layers compacted to 95% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.12	Extra over for G7 stabilised with Portland cement compacted to 95% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.13	Subbase course of G6 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.14	G5 Natural gravel material compacted in 150mm layers to 93% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.15	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.16	Base course of G4 natural gravel material in 150mm layers compacted to 98% Mod AASHTO density	m3	40,00	R	R
CDS	4.1.17	G2 base compacted to 100% Mod AASHTO density	m3	40,00	R	R
		Compaction of surfaces				
CDS	4.1.18	Compaction of ground surfaces under roadworks etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density (Roadbed)	m2	1290,00	R	R
		SOIL POISONING				
		<u>Weedkiller (active ingredients metolachlor 102,8 g/l, terbitilasien 248,6 g/l and atrasien 248,6 g/l) or similar approved mixed in the proportion of 100 ml weedkiller to 100l water and applied at a rate of 10 l/m2</u>				
CDS	4.1.19	Under roads, paving etc.	m2	1290,00	R	R
		TESTS				
CDS	4.1.20	<u>Prescribed tests to determine degree of compaction or similar approved properties of ground or filling</u>				
CDS	4.1.21	"Modified AASHTO Density" test	No	1,00	R	R
CDS	4.1.22	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	1,00	R	R
CDS	4.1.23	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	1,00	R	R
CDS	4.1.24	Atterberg limits test in accordance with methods A2 to A4 of TMH1	No	1,00	R	R
CDS	4.1.25	UCS test in accordance with method A14 of TMH 1	No	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		PAVING				
		<u>Provide the prime cost of R 500.00 per square metre for paving bricks delivered to site in accordance with SANS 1058, laid to falls on and including 20mm thick sand layer with joints filled in with sand, compacted with a vibration compactor</u>				
CDS	4.1.26	Paving to roadwork and parking to falls	m2	1340,00	R	R
CDS	4.1.27	Extra over for curved edges	m	433,00	R	R
		Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing				
		KERBS ETC				
CDS	4.1.28	Fig.1 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.29	Fig.2 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.30	Fig.3 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.31	Fig.4 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.32	Fig.5 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.33	Fig.6 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.34	Fig.6 Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.35	Fig.7 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.36	Fig.8 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.37	Fig.8b Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.38	Fig.8c Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.39	Fig.12 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.40	Fig.14 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CDS	4.1.41	Fig.16 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
		TRAFFIC SIGNS AND ROAD MARKINGS				
		<u>Prepare and apply one coat reflective road marking paint on bituminous road surfacing, precast concrete paving blocks, etc</u>				
CDS	4.1.42	100mm Wide line	m	90,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.2				
		DRAINAGE				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Laying, backfilling, bedding, etc of pipes				
		Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
		Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
		Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
		Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
		Unless otherwise described bedding of rigid pipes shall be Class B bedding				
		STORM WATER PIPE				
		Heavy duty uPVC storm water pipes				
CDS	4.2.1	110mm Diameter pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	296,00	R	R
		Extra over for uPVC fittings				
CDS	4.2.2	110mm Bend	No	50,00	R	R
CDS	4.2.3	110mm Junction	No	50,00	R	R
CDS	4.2.4	110mm Access junction	No	50,00	R	R
CDS	4.2.5	110mm Rodding Eye	No	50,00	R	R
		uPVC pipe Class 34 HD				
CDS	4.2.6	160mm Pipes laid in and including trenches(trench to be opened and banked at 1;3 grade allowing pipe to be exposed)	m	300,00	R	R
		Extra over for uPVC fittings				
CDS	4.2.7	160mm Bend	No	50,00	R	R
CDS	4.2.8	160mm Junction	No	50,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.3				
		SEWER RETICULATION				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Laying, backfilling, bedding, etc of pipes				
		Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
		Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
		Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
		Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
		Unless otherwise described bedding of rigid pipes shall be Class B bedding				
		Sewer manhole/ inspection chambers				
		<u>Construct 1420mm x 1420mm brick manholes with medium duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>				
CDS	4.3.1	Over 0m and up to 1.0m	No	10,00	R	R
CDS	4.3.2	Over 1.0m and up to 2.0m	No	10,00	R	R
CDS	4.3.3	Over 2m and up to 3m	No	10,00	R	R
CDS	4.3.4	Over 3m and up to 4m	No	10,00	R	R
		<u>Construct 1420mm x 1420mm brick manholes with heavy duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>				
CDS	4.3.5	Over 0m and up to 1.0m	No	3,00	R	R
CDS	4.3.6	Over 1.0m and up to 2.0m	No	3,00	R	R
CDS	4.3.7	Over 2m and up to 3m	No	3,00	R	R
CDS	4.3.8	Over 3m and up to 4m	No	3,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		CONNECTION OF MAIN SEWER LINE TO BUILDINGS				
		<u>Heavy duty (Class 34) uPVC sewer and drain pipes</u>				
CDS	4.3.9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	190,00	R	R
CDS	4.3.10	110mm Pipes laid in and including trenches not exceeding 1m deep	m	90,00	R	R
		<u>Extra over heavy duty (Class 34) uPVC sewer and drain pipes for fittings</u>				
CDS	4.3.11	110mm Bend	No	20,00	R	R
CDS	4.3.12	110mm Junction	No	20,00	R	R
CDS	4.3.13	110mm Access bend	No	20,00	R	R
CDS	4.3.14	110mm Access junction	No	20,00	R	R
CDS	4.3.15	110mm Rodding eye	No	20,00	R	R
		Class 34 uPVC pipes				
CDS	4.3.16	160mm Pipes laid in and including trenches(trench to be opened and banked at 1;3 grade allowing pipe to be exposed)	m	280,00	R	R
		Extra over items for uPVC fittings				
CDS	4.3.17	160 x 110 mm Diameter Y junction	No	20,00	R	R
CDS	4.3.18	160 x 160 mm Diameter Y junction	No	20,00	R	R
		Channel bends				
CDS	4.3.19	160mm Diameter 45 degree bend	No	20,00	R	R
CDS	4.3.20	160mm Diameter 90 degree bend	No	20,00	R	R
		Sockets				
CDS	4.3.21	160mm Diameter	No	20,00	R	R
		End caps				
CDS	4.3.22	160mm Diameter	No	20,00	R	R
		SUNDRIES				
CDS	4.3.23	Excavation in earth for pipe trenches, chambers, etc	m3	40,00	R	R
CDS	4.3.24	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the contractor	m3	40,00	R	R
CDS	4.3.25	Risk of collapse to sides of trenches	m2	130,00	R	R
CDS	4.3.26	Extra over backfilling to drain trenches, chambers, etc for Class B bedding cradle of compacted selected granular material	m3	20,00	R	R
CDS	4.3.27	25Mpa unreinforced concrete encasing to horizontal pipes laid in trenches N.E 1m deep	m3	28,00	R	R
		WATER				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ROLLER SHUTTERS & HANGAR DOORS				
CDS	5.9	Provide the sum of R942,000.00 for Roller Shutters & Hangar Doors by an approved sub-contractor	Sum	1,00	R 942 000,00	R 942 000,00
CDS	5.10	Allow for profit & attendance if required	%		R 942 000,00	R
		GENERAL GLAZING				
CDS	5.11	Provide the sum of R471,000.00 for General Glazing by an approved sub-contractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.12	Allow for profit & attendance if required	%		R 471 000,00	R
		ALUMINIUM FACADE CLADDING, SHOPFRONTS, WINDOWS AND DOORS				
CDS	5.13	Provide the sum of R942,000.00 for aluminium façade cladding, shopfronts, window and door installation by an approved sub-contractor	Sum	1,00	R 942 000,00	R 942 000,00
CDS	5.14	Allow for profit & attendance if required	%		R 942 000,00	R
		SIGNAGE				
CDS	5.15	Provide the sum of R471,000.00 for corporate and directional signage by an approved subcontractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.16	Allow for profit & attendance if required	%		R 471 000,00	R
		BLINDS, FURNITURE & FITTINGS				
CDS	5.17	Provide the sum of R706,000.00 for blinds, furniture and fittings by an approved subcontractor	Sum	1,00	R 706 000,00	R 706 000,00
CDS	5.18	Allow for profit & attendance if required	%		R 706 000,00	R
		TENANT TEMPORARY RELOCATION & REINSTATEMENT				
CDS	5.19	Provide the sum of R 471,000.00 for tenant temporary relocation and reinstatement works by an approved subcontractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.20	Allow for profit & attendance if required	%		R 471 000,00	R
		ASBESTOS REMOVAL				
CDS	5.21	Provide the sum of R471,000.00 for the Removal & Safe Disposal of Asbestos by an approved subcontractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.22	Allow for profit & attendance if required	%		R 471 000,00	R
		GUTTERS & RAINWATER DISPOSAL SYSTEMS				
CDS	5.23	Provide the sum of R942,000.00 for Gutters & Rainwater Disposal Systems by an approved subcontractor	Sum	1,00	R 942 000,00	R 942 000,00
CDS	5.24	Allow for profit & attendance if required	%		R 942 000,00	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS				
		GENERAL ELECTRICAL INSTALLATIONS				
CDS	5.25	Provide the sum of R2 828,000.0 for General Electical Installations by an approved subcontractor	Prov	1,00	R 2 828 000,00	R 2 828 000,00
CDS	5.26	Allow for profit & attendance if required	%		R 2 828 000,00	R
		SUB - STATION INSTALLATIONS				
CDS	5.27	Provide the sum of R471,000.00 for Sub Station Installations by an approved subcontractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.28	Allow for profit & attendance if required	%		R 471 000,00	R
		UPS INSTALLATIONS				
CDS	5.29	Provide the sum of R471,000.00 for UPS Installations by an approved subcontractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.30	Allow for profit & attendance if required	%		R 471 000,00	R
		GENERATOR INSTALLATION				
CDS	5.31	Provide the sum of R471,000.00 for the Generator Installation by an approved sub-contractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.32	Allow for profit & attendance if required	%		R 471 000,00	R
		FIRE DETECTION & FIRE STOPPING INSTALLATION				
CDS	5.33	Provide the sum of R706,000.00 for the Fire Detection & Fire Stopping Installation by an approved sub-contractor	Sum	1,00	R 706 000,00	R 706 000,00
CDS	5.34	Allow for profit & attendance if required	%		R 706 000,00	R
		ACCESS CONTROL				
CDS	5.35	Provide the sum of R235,000.00 for the Access Control System installation by an approved sub-contractor	Sum	1,00	R 235 000,00	R 235 000,00
CDS	5.36	Allow for profit & attendance if required	%		R 235 000,00	R
		CCTV INSTALLATION				
CDS	5.37	Provide the sum of R235,000.00 for CCTV installation by an approved sub-contractor	Sum	1,00	R 235 000,00	R 235 000,00
CDS	5.38	Allow for profit & attendance if required	%		R 235 000,00	R
		INTERNET AND TELECOMMUNICATION INSTALLATION				
CDS	5.39	Provide the sum of R471,000.00 for the internet and telecommunication installation by an approved subcontractor	Sum	1,00	R 471 000,00	R 471 000,00
CDS	5.40	Allow for profit & attendance if required	%		R 471 000,00	R

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				CLUSTER 3		
				CDSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 6				
		WASTE DISPOSAL , REPURPOSING & RECYCLING				
		BILL NO.1				
		WASTE DISPOSAL , REPURPOSING & RECYCLING				
		GENERAL				
		All waste shall be disposed / recycled / repurposed by permitted disposal / recycling / repurposing facilities and safe disposal /recycling /repurposing certificates shall be provided for all waste removed from site				
		The contractor shall maintain and provide records and manifests of waste removed from the site and corresponding waybills and disposal, repurposing and recycling certificates issued by permitted waste facilities				
		The contractor shall provide copies of permits of disposal / recycling / repurposing facilities for client approval prior to transferring of any waste				
		Hazardous Waste				
		Provision is made for performing the required waste classifications and subsequent disposal of any hazardous waste streams encountered during construction works				
		Recycling / Repurposing Return				
		Provision is made for a monetary return to the client for items that are recycled or repurposed. The return is reflected in these bills of quantities as a negative amount. The negative amount accounts for the monetary return to the client. These bills of quantities have provided a baseline estimate of quantities of materials to be recycled/repurposed and actual quantities will vary based on prevailing site conditions and requirements				
		GENERAL WASTE				
CDS	6.1	General building / building rubble waste to landfill	ton	260,00	R	R
		RECYCLING / REPURPOSING RETURN				
CDS	6.2	Glass	Kg	860,00	(-R	(-R)
CDS	6.3	Plastics	Kg	860,00	(-R	(-R)
CDS	6.4	Steel	Kg	860,00	(-R	(-R)
CDS	6.5	Stainless Steel	Kg	860,00	(-R	(-R)
CDS	6.6	Copper	Kg	860,00	(-R	(-R)
CDS	6.7	Aluminium	Kg	860,00	(-R	(-R)
CDS	6.8	Brass	Kg	860,00	(-R	(-R)
CDS	6.9	Iron	Kg	860,00	(-R	(-R)

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KING PHALO AIRPORT - KPA

				CLUSTER 3		
				KPA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 1				
		BILL NO.1				
		PRELIMINARIES				
		PREAMBLES FOR TRADES				
		The Model Preambles for Trades (2008 edition) 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 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 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 Model Preambles and in any supplementary preambles				
		SUPPLEMENTARY PREAMBLES				
		Fixed Charge Items - In general the sum tendered for each fixed charge item will be paid only after the obligations in respect of that item have, in the opinion of the employer/employers agent have been met. Proof of obligations having been met shall be provided to support payment				
		Time Related Items - The amount shall cover all the contractors time related obligations for the entire site irrespective of number of work packages being executed on the site. Payment shall be made for periods of construction works on site. Periods between work packages where there is no construction works will not attract time related charges unless otherwise approved by the employers agent.				
		Value Related Items - The sum tendered for each value related item will only be paid as a proportion of work completed to date on each certificate. The proportion of the amount paid shall be the same as the proportion of work complete to date which is cumulative cost to date divided by the contact sum Provisional amounts included under value related items shall only be utilised on written instruction of the employers agent and will be paid at net cost plus agreed mark up Specialised PPE is defined as PPE other than 'Standard PPE' Standard PPE is defined as: Overalls/Uniforms, Reflector Jackets, Safety Boots, Gloves, Dust Masks, Goggles, Ear Plugs & Hard Hats all of which must be SABS/SANS compliant				
		FIXED CHARGE ITEMS				
KPA	1.1	General Insurance Requirement (Sureties, guarantees, bonds, workman's compensation etc)	Sum	1,00	R	R
KPA	1.2	Contract works insurance	Sum	1,00	R	R
KPA	1.3	Public liability insurance	Sum	1,00	R	R
KPA	1.4	Other fixed obligations	Sum	1,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TIME RELATED ITEMS				
	<u>Operation and Maintenance of Facilities on Site, for duration of construction, except where otherwise stated</u>				
KPA 1.5	Offices (Accommodates up to 5 staff x 1 off)	month	24,00	R	R
KPA 1.6	Storage sheds (12m x 2.4m x 1 off - Includes Delivery & Removal)	month	24,00	R	R
KPA 1.7	Ablution & Latrine facilities (5 x Male & 3 x Urinal & 3 x Female & 1 x Paraplegic & 2 x Standalone Units)	month	24,00	R	R
KPA 1.8	Electric Power & Lighting	month	24,00	R	R
KPA 1.9	Water supplies, electric power and communications	month	24,00	R	R
	<u>Supervision</u>				
	<u>Supervisor/Foreman</u>				
KPA 1.10	Site Supervision for the duration of the contract (x 1 Resource)	month	24,00	R	R
	<u>Safety Management</u>				
KPA 1.11	Provision of full time Construction Site Safety Officer (x 1 Resource)	month	24,00	R	R
KPA 1.12	Compliance with the Occupational Health and Safety Act (OHSA) and Regulations (including the Construction Regulations, 2014)	month	24,00	R	R
KPA 1.13	Site Security	month	24,00	R	R
KPA 1.14	Signage for the site	month	24,00	R	R
KPA 1.15	Other time related obligations	month	24,00	R	R
	VALUE RELATED ITEMS				
KPA 1.16	Contractual requirements	Sum	1,00	R	R
KPA 1.17	Provision for Specialised PPE Requirements	Prov	1,00	R 62 586,45	R 62 586,45
KPA 1.18	Allow for profit & attendance if required	%		R 62 586,45	R
KPA 1.19	Provision for Location and Protection of Existing Underground Services	Prov	1,00	R 37 551,87	R 37 551,87
KPA 1.20	Allow for profit & attendance if required	%		R 37 551,87	R
KPA 1.21	Provision for Compliance with Environmental requirements	Prov	1,00	R 37 551,87	R 37 551,87
KPA 1.22	Allow for profit & attendance if required	%		R 37 551,87	R
KPA 1.23	Provision for ACSA Training and Airports Permits (ACSA Issue)	Prov	1,00	R 125 172,89	R 125 172,89
KPA 1.24	Allow for profit & attendance if required	%		R 125 172,89	R
	<u>Materials & Plant</u>				
KPA 1.25	Provision for Sundry Materials & Plant	Prov	1,00	R 78 750,00	R 78 750,00
KPA 1.26	Allow for profit & attendance if required	%		R 78 750,00	R
	<u>Provisional Sum</u>				
KPA 1.27	Sundry preliminary requirements	Prov	1,00	R 78 750,00	R 78 750,00
KPA 1.28	Allow for profit & attendance if required	%		R 78 750,00	R

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				CLUSTER 3		
				KPA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 2				
		BILL NO.1				
		LABOUR SCHEDULE				
		GENERAL				
		labour rates will be utilised where 'dayworks' are deemed required as specified by the employers agent.				
		Daywork - The employer's Agent may schedule day works where appropriate for various classes of labour. The unit rates for labour shall cover overhead charges & profit, insurances, wage costs, salary costs, use of equipment & tools and transport & Allowances costs.				
		Operating Times				
		Normal Hours: Regarded as between 06:00am and 18:00pm weekdays				
		After Hours: Regarded as between 06:00pm and 06:00am weekdays				
		After Hours: Regarded as between 06:00am and 23:59pm Saturdays				
		Sundays & Public Holidays: Regarded as Between 0:00am and 23:59pm on Sundays and Public Holidays				
		Additional Supervisor / Foreman (General Building)				
KPA	2.1	Normal Hours	Man Hours	350,00	R	R
KPA	2.2	After Hours	Man Hours	100,00	R	R
KPA	2.3	Sundays & Public Holidays	Man Hours	50,00	R	R
		Additional Supervisor / Foreman (Civil Works)				
KPA	2.4	Normal Hours	Man Hours	200,00	R	R
KPA	2.5	After Hours	Man Hours	100,00	R	R
KPA	2.6	Sundays & Public Holidays	Man Hours	50,00	R	R
		Handyman				
KPA	2.7	Normal Hours	Man Hours	300,00	R	R
KPA	2.8	After Hours	Man Hours	100,00	R	R
KPA	2.9	Sundays & Public Holidays	Man Hours	50,00	R	R
		Brick Layer				
KPA	2.10	Normal Hours	Man Hours	200,00	R	R
KPA	2.11	After Hours	Man Hours	100,00	R	R
KPA	2.12	Sundays & Public Holidays	Man Hours	50,00	R	R
		Carpenter				
KPA	2.13	Normal Hours	Man Hours	300,00	R	R
KPA	2.14	After Hours	Man Hours	100,00	R	R
KPA	2.15	Sundays & Public Holidays	Man Hours	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Tiler				
KPA	2.16	Normal Hours	Man Hours	200,00	R	R
KPA	2.17	After Hours	Man Hours	100,00	R	R
KPA	2.18	Sundays & Public Holidays	Man Hours	50,00	R	R
						R -
		Plasterer				
KPA	2.19	Normal Hours	Man Hours	200,00	R	R
KPA	2.20	After Hours	Man Hours	100,00	R	R
KPA	2.21	Sundays & Public Holidays	Man Hours	50,00	R	R
		Painter				
KPA	2.22	Normal Hours	Man Hours	300,00	R	R
KPA	2.23	After Hours	Man Hours	100,00	R	R
KPA	2.24	Sundays & Public Holidays	Man Hours	50,00	R	R
		Welder				
KPA	2.25	Normal Hours	Man Hours	300,00	R	R
KPA	2.26	After Hours	Man Hours	100,00	R	R
KPA	2.27	Sundays & Public Holidays	Man Hours	50,00	R	R
		General Assistant				
KPA	2.28	Normal Hours	Man Hours	1350,00	R	R
KPA	2.29	After Hours	Man Hours	100,00	R	R
KPA	2.30	Sundays & Public Holidays	Man Hours	50,00	R	R
		Shutterhand / Formwork Specialist Installer				
KPA	2.31	Normal Hours	Man Hours	200,00	R	R
KPA	2.32	After Hours	Man Hours	100,00	R	R
KPA	2.33	Sundays & Public Holidays	Man Hours	50,00	R	R
		Waterproofing Technician / Specialist Installer				
KPA	2.34	Normal Hours	Man Hours	200,00	R	R
KPA	2.35	After Hours	Man Hours	100,00	R	R
KPA	2.36	Sundays & Public Holidays	Man Hours	50,00	R	R
		Ceiling & Partitions Specialist Installer				
KPA	2.37	Normal Hours	Man Hours	200,00	R	R
KPA	2.38	After Hours	Man Hours	100,00	R	R
KPA	2.39	Sundays & Public Holidays	Man Hours	50,00	R	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Handing over materials				
	Where certain materials or articles from alterations are described as to be "handed over" to the Employer's Representative, such material or articles shall be properly stored by the Contractor, until handing over thereof. The Contractor must obtain an official receipt listing the materials or articles and dates of handing over. If the Contractor fails to submit the receipt when requested, it shall be deemed that the materials or articles are still in his possession and he will be held liable to the client for the full replacement value thereof, which amount will be deducted from monies due to the Contractor. The clients agent will at issuing of each work package indicate materials that are to be handed over				
	EXISTING BUILDINGS				
	The existing buildings will be in use and occupied during the progress of the contract and the contractor will be required to carry out the works in such a manner as will least interfere with the occupants and with the minimum of disturbance.				
	Contractors are also to note that due to the buildings being occupied the repairs and renovations works will be required to be executed in a specific order as will be determined by the Employer' Representative.				
	SIZE PERTAINING TO EXISTING WORK				
	The Contractor is advised to check all dimensions affecting the existing buildings on the site and he will be held solely responsible for the correctness of sizes of all new work.				
	All sizes given in relation to the existing work are approximate				
	MAKING GOOD DAMAGED WORK				
	The Contractor shall make good in all trades to existing work where damaged or disturbed through the alterations with all necessary new materials to match the existing				
	FORMING NEW OPENINGS OR ALTERING				
	Openings in existing walls				
	Descriptions of forming new openings or altering openings in existing walls shall be deemed to include breaking out for and forming new brick, in situ concrete or prestressed concrete lintels including all reinforcement, formwork, turning pieces, etc, building up jambs or portion of openings as described with brickwork properly toothed and bonded to existing, building cavities of hollow walls solid where necessary and making good finishes all around on both sides and into reveals as described.				
	BUILDING UP OPENINGS				
	Descriptions of building up existing openings where given in number shall be deemed to include preparing existing surfaces all around, brickwork properly toothed and bonded to existing, wedging up and making good on both sides as described.				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		PAINTWORK				
		Where plasterwork on walls, ceilings, etc. are required to be patched or made good, prices are to include for the appropriate priming coat and one coat undercoat to receive paint finishing coats which are measured elsewhere.				
		TEMPORARY BARRIERS, SCREENS, ETC				
		Temporary barriers, screens, etc including removal on completion				
KPA	3.1.1	Temporary hoarding of galvanised diamond mesh covered with shade cloth 2.7m high and removal later	m	90,00	R	R
KPA	3.1.2	Extra over for galvanised mild steel double gate and frame 1511 x 2032mm high	No	2,00	R	R
KPA	3.1.3	Drywall barricade not exceeding 2.4m high of galvanised steel channel section rails and studs covered on one side with 12,7mm gypsum plasterboard and finished with two coats interior quality PVA emulsion paint, including corners, ends, etc	m	90,00	R	R
KPA	3.1.4	Extra over preceding item for hollow core single door 813 x 2032mm high, including steel frame, two-lever mortice lock, primer and two coats paint	No	2,00	R	R
KPA	3.1.5	Hoarding between concrete floor and ceiling formed of suitable timber framing with 22mm thick shutter board	m2	30,00	R	R
KPA	3.1.6	Metal sheeting hoarding 2m high fixed to steel posts at equal centres including paint to external face of sheets and posts.	m2	30,00	R	R
KPA	3.1.7	Temporary 12mm shutter board protection lining to walls, floors and ceilings including removing after completion and making good to walls, floors and ceilings	m2	60,00	R	R
		REMOVAL OF EXISTING WORK				
		Breaking up and removing mass concrete including reinforcing and carting to approved disposal area within the airport.				
KPA	3.1.8	Stairs with landings, waist, treads, risers, ramps, surface beds, strip footing, reinforced concrete etc	m3	60,00	R	R
		Breaking down and removing existing concrete work including all steel reinforcing, steel corners bolts etc and carting to approved disposal area within the airport.				
KPA	3.1.9	Concrete Columns, beams and slabs not exceeding 3m high	m3	20,00	R	R
KPA	3.1.10	Manholes, bases, strip footings etc not exceeding 1.5m deep	m3	20,00	R	R
KPA	3.1.11	Surface beds not exceeding 100mm thick	m3	20,00	R	R
KPA	3.1.12	Surface beds exceeding 100mm thick and not exceeding 150mm thick	m3	20,00	R	R
		Breaking down and removing brickwork including all steel door frames, window frames etc and carting to approved disposal area within the airport.				
KPA	3.1.13	Half brick wall	m2	90,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.1.14	One brick wall	m2	90,00	R	R
		Taking up and removing vinyl floor coverings, tiles, carpets, etc				
KPA	3.1.15	Ceramic / Porcelain / Marble tiles to floor including preparing floor for new floor covering	m2	310,00	R	R
KPA	3.1.16	Vinyl / plastic / carpet floor covering including preparing floors for new floor coverings	m2	130,00	R	R
		Hacking up and removing off coverings to walls, columns, partitionwalls etc. including preparing surfaces for new finishes				
KPA	3.1.17	Tiles from walls, columns	m2	60,00	R	R
KPA	3.1.18	Wall paper covering from walls, columns etc.	m2	30,00	R	R
		Taking out / off and removing sundry metalwork				
KPA	3.1.19	Stainless steel / mild steel barrier not exceeding 150mm diameter including vertical supports and making good to concrete to receive new finish	m	90,00	R	R
		Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)				
KPA	3.1.20	Timber single door and steel frame not exceeding 2,5m ²	No	20,00	R	R
KPA	3.1.21	Timber double door and steel frame exceeding 2,5m ² and not exceeding 5m ²	No	10,00	R	R
KPA	3.1.22	Timber double door and steel frame exceeding 5m ² and not exceeding 7.5m ²	No	10,00	R	R
KPA	3.1.23	Glazed aluminium/steel/timber window not exceeding 2,5m ²	No	20,00	R	R
KPA	3.1.24	Glazed aluminium/steel/timber window exceeding 2,5m ² and not exceeding 5m ²	No	10,00	R	R
KPA	3.1.25	Glazed aluminium/steel/timber window exceeding 5m ² and not exceeding 7.5m ²	No	10,00	R	R
		Taking down and removing roofs, floors, panelling, ceilings, partitions, etc				
KPA	3.1.26	Suspended ceilings, including suspension grid, hangers, cornices, etc not exceeding 3.0m high	m2	310,00	R	R
KPA	3.1.27	Drywall partitions not exceeding 3.0m high, including doors, glazed borrowed lights, etc	m	190,00	R	R
KPA	3.1.28	Toilet partitioning not exceeding 3.0 m high	m2	60,00	R	R
		Taking out and removing sundry joinery work, fittings, etc				
KPA	3.1.29	Skirtings - various widths	m	130,00	R	R
KPA	3.1.30	Timber sills - various widths	m	30,00	R	R
KPA	3.1.31	Timber wall mounted cupboard - Measured by surface area covered on the wall	m2	30,00	R	R
KPA	3.1.32	Timber floor mounted cupboard - Measured by surface area covered on the floor	m2	30,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.1.33	Timber sink cupboard, including sink and disconnecting & terminating waste pipe - Measured by surface area covered on the floor	m2	20,00	R	R
KPA	3.1.34	Timber/stone counters	m2	30,00	R	R
		Taking out/off and removing sundry metalwork				
KPA	3.1.35	Steel pipe handrails from walls, including brackets, and making good plaster finish	m	30,00	R	R
		Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screed, plaster, tile finishes, etc				
KPA	3.1.36	Not exceeding 100mm thick Screed from floors	m2	310,00	R	R
KPA	3.1.37	Internal plaster from walls and columns not exceeding 3m high	m2	310,00	R	R
KPA	3.1.38	Internal plaster from ceilings and beams not exceeding 3m high	m2	310,00	R	R
KPA	3.1.39	External plaster from walls, columns and beams not exceeding 3m high	m2	310,00	R	R
		POWER WASH ON EXISTING WALLS				
KPA	3.1.40	Power wash on existing walls (Internal and external walls) as per Employer Agent instruction	m2	310,00	R	R
		Taking down and removing				
KPA	3.1.41	Mesh fence with steel posts and droppers	m2	630,00	R	R
KPA	3.1.42	Steel palisade fence with steel posts and droppers	m2	630,00	R	R
KPA	3.1.43	Concrete palisade fence with concrete posts and droppers	m2	630,00	R	R
KPA	3.1.44	Security fence with 45 degree barbed wire overhang with posts and droppers	m2	630,00	R	R
KPA	3.1.45	Half brick boundary or yard wall	m2	160,00	R	R
KPA	3.1.46	One brick boundary or yard wall	m2	160,00	R	R
KPA	3.1.47	Clearvu Fence not exceeding 2,0m high with steel posts	m	160,00	R	R
		Lift and removing pre-cast concrete including bedding, etc				
KPA	3.1.48	60mm Interlocking paving	m2	580,00	R	R
KPA	3.1.49	80mm Interlocking paving	m2	580,00	R	R
KPA	3.1.50	50mm Cement or brick paving	m2	580,00	R	R
KPA	3.1.51	Fig.1 Kerbing	m	90,00	R	R
KPA	3.1.52	Fig.2 Kerbing	m	90,00	R	R
KPA	3.1.53	Fig.3 Kerbing	m	90,00	R	R
KPA	3.1.54	Fig.4 Kerbing	m	90,00	R	R
KPA	3.1.55	Fig.5 Kerbing	m	90,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.1.56	Fig.6 Kerbing	m	90,00	R	R
KPA	3.1.57	Fig.6 Kerbing - Mountable	m	90,00	R	R
KPA	3.1.58	Fig.7 Kerbing	m	90,00	R	R
KPA	3.1.59	Fig.8 Kerbing	m	90,00	R	R
KPA	3.1.60	Fig.8b Kerbing - Mountable	m	90,00	R	R
KPA	3.1.61	Fig.8c Kerbing - Mountable	m	90,00	R	R
KPA	3.1.62	Fig.12 Kerbing	m	90,00	R	R
KPA	3.1.63	Fig.14 Kerbing	m	90,00	R	R
KPA	3.1.64	Fig.16 Kerbing	m	90,00	R	R
		PREPARATORY WORK TO EXISTING SURFACES				
KPA	3.1.65	Hacking faces of existing concrete columns, beams, etc to receive plaster	m2	30,00	R	R
KPA	3.1.66	Making good defects in existing screeded floors with "an SABS approved self leveling screed"	m2	30,00	R	R
		MAKING GOOD OF FINISHES ETC				
		Making good face brickwork				
		<u>Brickwork in Stock clay bricks (7 Mpa nominal strength) in class II mortar in stretcher bond</u>				
KPA	3.1.67	Ends of half brick walls	m	30,00	R	R
KPA	3.1.68	Ends of one brick walls	m	30,00	R	R
KPA	3.1.69	Faces of walls where half brick cross walls removed	m	20,00	R	R
KPA	3.1.70	Faces of walls where one brick cross walls removed	m	20,00	R	R
		Making good gypsum plasterboard ceilings and timber branderling				
KPA	3.1.71	Ceilings in patches	m2	20,00	R	R
KPA	3.1.72	Ceilings where half brick walls removed	m	20,00	R	R
KPA	3.1.73	Ceilings where one brick walls removed	m	20,00	R	R
		Making good cement screeds				
KPA	3.1.74	Not exceeding 100mm Thick on floors in patches	m2	30,00	R	R
KPA	3.1.75	Floors where half brick walls removed	m	20,00	R	R
KPA	3.1.76	Floors where one brick walls removed	m	20,00	R	R
		Making good internal cement plaster				
KPA	3.1.77	Walls in patches	m2	20,00	R	R
KPA	3.1.78	Concrete ceilings in patches	m2	20,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.2				
		EARTHWORKS				
		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.				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Carting away of excavated material				
		Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
		Filling				
		Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
		SITE CLEARANCE ETC				
		Site clearance				
KPA	3.2.1	Stripping average 300mm thick layer of top soil and stockpile on site	m2	500,00	R	R
		EXCAVATION, RISK OF COLLAPSE, FILLING, ETC				
		Excavation in earth not exceeding 2m deep including carting to a stockpile				
KPA	3.2.2	To trenches	m3	110,00	R	R
KPA	3.2.3	To holes	m3	10,00	R	R
KPA	3.2.4	Reduced levels under floors	m3	20,00	R	R
		Excavation in earth exceeding 2m deep but ne. 4m including carting to a stockpile				
KPA	3.2.5	To trenches	m3	60,00	R	R
KPA	3.2.6	To holes	m3	10,00	R	R
KPA	3.2.7	Reduced levels under floors	m3	20,00	R	R
		EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
		Extra over trench and hole excavations in earth for excavation in				
KPA	3.2.8	EO: Soft rock	m3	9,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
KPA	3.2.9	EO: Hard rock	m3	9,00	R		R
		Extra over all excavations for carting away					
KPA	3.2.10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	130,00	R		R
		Risk of collapse to sides of excavation n.e 2m deep					
KPA	3.2.11	To trenches	m2	110,00	R		R
KPA	3.2.12	To holes	m2	30,00	R		R
		Risk of collapse to sides of excavation exceeding 2m but n.e 3.5m deep					
KPA	3.2.13	To trenches	m2	110,00	R		R
KPA	3.2.14	To holes	m2	40,00	R		R
		Keeping excavations free of water					
KPA	3.2.15	Keeping excavations free of water	Item	1,00	R		R
		FILLING ETC					
		Earth filling obtained from excavations and/or prescribed stock on site compacted to 93 % Mod AASHTO density piles					
KPA	3.2.16	Under foundations, floors, steps, pavings, etc	m3	50,00	R		R
		Earth filling supplied (G5) by contractor compacted to 93% Mod AASHTO density					
KPA	3.2.17	Under floors, steps, paving, foundations, manholes etc	m3	90,00	R		R
		Compaction of surfaces					
KPA	3.2.18	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	250,00	R		R
		Prescribed density tests on filling					
KPA	3.2.19	"Modified AASHTO Density" test	No	1,00	R		R
KPA	3.2.20	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	1,00	R		R
		SOIL POISONING					
		Soil insecticide					
KPA	3.2.21	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	130,00	R		R
KPA	3.2.22	To bottoms and sides of trenches etc	m2	130,00	R		R
		Materials & Plant					
KPA	3.2.23	Provision for Sundry Materials & Plant	Prov	1,00	R	7 875,00	R 7 875,00
KPA	3.2.24	Allow for profit & attendance if required	%		R	7 875,00	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.3				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	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 employers agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. PRICES FOR CONCRETE ARE TO INCLUDE FOR ALL TESTS AND CERTIFICATES				
	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 reuse 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" In order to accommodate the custom in some regions to give formwork to sides of beams, isolated beams, etc separately from formwork to the soffits thereof, the items in respect of formwork to beams, isolated beams, etc are given under the headings of "formwork to sides", "formwork to soffits" and "formwork to sides and soffits"				
	UNREINFORCED CONCRETE				
	15 Mpa / 20mm mass concrete				
KPA 3.3.1	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		20 Mpa/20mm vibrated reinforced concrete				
KPA	3.3.2	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
KPA	3.3.3	To columns	m3	10,00	R	R
KPA	3.3.4	To slabs	m3	10,00	R	R
KPA	3.3.5	To beams	m3	10,00	R	R
KPA	3.3.6	Walls	m3	10,00	R	R
		25 Mpa/20mm vibrated reinforced concrete				
KPA	3.3.7	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
KPA	3.3.8	To columns	m3	10,00	R	R
KPA	3.3.9	To slabs	m3	10,00	R	R
KPA	3.3.10	To beams	m3	10,00	R	R
KPA	3.3.11	Walls	m3	10,00	R	R
		30MPa/20mm vibrated reinforced concrete				
KPA	3.3.12	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
KPA	3.3.13	To columns	m3	10,00	R	R
KPA	3.3.14	To slabs	m3	10,00	R	R
KPA	3.3.15	To beams	m3	10,00	R	R
KPA	3.3.16	Walls	m3	10,00	R	R
		35 Mpa/20mm vibrated reinforced concrete				
KPA	3.3.17	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	10,00	R	R
KPA	3.3.18	To columns	m3	5,00	R	R
KPA	3.3.19	To slabs	m3	5,00	R	R
KPA	3.3.20	To beams	m3	5,00	R	R
KPA	3.3.21	Walls	m3	5,00	R	R
		40 Mpa/20mm vibrated reinforced concrete				
KPA	3.3.22	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	2,00	R	R
KPA	3.3.23	To columns	m3	2,00	R	R
KPA	3.3.24	To slabs	m3	2,00	R	R
KPA	3.3.25	To beams	m3	2,00	R	R
KPA	3.3.26	Walls	m3	2,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TEST CUBES				
KPA	3.3.27	Making and testing 150 x 150 x 150mm concrete strength test cube, testing and providing test results	No	10,00	R	R
		CONCRETE SUNDRIES				
		Finishing top surfaces of concrete smooth with a wood float				
KPA	3.3.28	Surface beds, slabs,beams, walls, paving etc	m2	130,00	R	R
		Finishing top surfaces of concrete smooth with a steel trowel				
KPA	3.3.29	Surface beds, slabs,beams, walls, paving etc	m2	130,00	R	R
		Finishing top surfaces of concrete smooth with a power float				
KPA	3.3.30	Surface beds, slabs,beams, walls, paving etc	m2	130,00	R	R
		Scabble existing concrete surfaces, wire brush corroded rebar and apply "Prostruct 616" or similar approved wet to dry concrete adhesive				
KPA	3.3.31	Side of existing concrete	m2	60,00	R	R
		Finishing top surfaces of concrete with and including a nonslip brushed concrete finish including wave-like lines parallel				
KPA	3.3.32	To falls	m2	60,00	R	R
		35MPa non-shrink grout				
KPA	3.3.33	Bedding approximately 30mm thick under 300 x 300mm base plate, including chamfered edges all round	m3	2,00	R	R
		Core through 250mm thick Reinforced concrete walls, slab, etc. with a diamond saw or other mechanical means to form including grouting with "Epidermix 395" liquid grouting compound				
KPA	3.3.34	40mm Diameter opening	No	7,00	R	R
KPA	3.3.35	50mm Diameter opening	No	6,00	R	R
KPA	3.3.36	110mm Diameter opening	No	5,00	R	R
KPA	3.3.37	200mm Diameter opening	No	4,00	R	R
KPA	3.3.38	250mm Diameter opening	No	3,00	R	R
KPA	3.3.39	350mm Diameter opening	No	2,00	R	R
KPA	3.3.40	450mm Diameter opening	No	1,00	R	R
		Rough formwork to sides				
KPA	3.3.41	Edges , risers, ends and reveals not exceeding 300 mm high	m	130,00	R	R
KPA	3.3.42	To ground beams	m2	60,00	R	R
		Smooth formwork to sides including supports etc.				
KPA	3.3.43	To beams	m2	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.3.44	To columns	m2	50,00	R	R
KPA	3.3.45	To pits	m2	50,00	R	R
KPA	3.3.46	To ramps	m2	50,00	R	R
KPA	3.3.47	To walls	m2	50,00	R	R
		Smooth formwork to soffits				
KPA	3.3.48	Beams propped up exceeding 3,5m and not exceeding 5m high	m2	60,00	R	R
KPA	3.3.49	Slab propped up exceeding 3,5m and not exceeding 5m high	m2	130,00	R	R
		Formwork to sloping top surfaces (pitch exceeding 35 degrees)				
KPA	3.3.50	Concrete humps/bunding, etc not exceeding 300mm wide	m	30,00	R	R
		ISOLATION JOINTS ETC				
		Joint sealants				
		Expansion joints with softboard between vertical concrete surfaces				
KPA	3.3.51	Silicone sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	40,00	R	R
KPA	3.3.52	Polysulphide sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	40,00	R	R
		Saw cut joints				
KPA	3.3.53	50 x 3mm Saw cut joints in top of concrete reamed out to 8mm including 10mm diameter backing cord and 8mm wide x 13mm deep "Dow Corning 813C" silicone sealant or equal approved	m	40,00	R	R
		REINFORCEMENT (PROVISIONAL)				
		Mild tensile steel reinforcement to structural concrete work				
KPA	3.3.54	25mm Diameter bars	ton	1,00	R	R
KPA	3.3.55	20mm Diameter bars	ton	1,00	R	R
KPA	3.3.56	16mm Diameter bars	ton	1,00	R	R
KPA	3.3.57	12mm Diameter bars	ton	1,00	R	R
KPA	3.3.58	10mm Diameter bars	ton	1,00	R	R
KPA	3.3.59	8mm Diameter bars	ton	1,00	R	R
		High tensile steel reinforcement to structural concrete work				
KPA	3.3.60	25mm Diameter bars	ton	0,50	R	R
KPA	3.3.61	20mm Diameter bars	ton	0,50	R	R
KPA	3.3.62	16mm Diameter bars	ton	0,50	R	R
KPA	3.3.63	12mm Diameter bars	ton	0,50	R	R
KPA	3.3.64	10mm Diameter bars	ton	1,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.4				
		MASONRY				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		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				
		Hollow walls				
		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				
		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				
		<u>Brickwork of NFX clay bricks (14 MPa nominal compressive strength) in class II mortar in stretcher bond</u>				
KPA	3.4.1	Piers	m3	5,00	R	R
KPA	3.4.2	Half brick walls	m2	100,00	R	R
KPA	3.4.3	One brick walls	m2	150,00	R	R
KPA	3.4.4	Cavity walls - Made up of Two half brick skins	m2	30,00	R	R
KPA	3.4.5	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	30,00	R	R
KPA	3.4.6	280mm Hollow walls of two half brick skins circular on plan with cavities filled in with and including 25MPa/20mm concrete (elsewhere)	m2	30,00	R	R
KPA	3.4.7	Cutting toothings and bonding new brickwork to existing	m	30,00	R	R
		<u>Brickwork in Stock clay bricks (7 Mpa nominal strength) in class II mortar in stretcher bond</u>				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.4.8	Piers	m3	5,00	R	R
KPA	3.4.9	Half brick walls	m2	299,00	R	R
KPA	3.4.10	One brick walls	m2	380,00	R	R
KPA	3.4.11	Cavity walls - Made up of two half brick skins	m2	180,00	R	R
KPA	3.4.12	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	178,00	R	R
KPA	3.4.13	280mm Hollow walls of two half brick skins circular on plan with cavities filled in with and including 25MPa/20mm concrete	m2	180,00	R	R
KPA	3.4.14	Cutting toothings and bonding new brickwork to existing	m	130,00	R	R
		FACE BRICKWORK				
		<u>Provide the prime cost of R 9 600.00 per thousand face bricks delivered to site pointed with flush horizontal and vertical joints</u>				
KPA	3.4.15	Extra over brickwork for face brickwork in foundation walls, ramp, etc	m2	50,00	R	R
KPA	3.4.16	Extra over brickwork for face brickwork	m2	90,00	R	R
KPA	3.4.17	Half brick face brick walls in class II mortar pointed on both sides	m2	80,00	R	R
KPA	3.4.18	Fair cutting and fitting around pipe not exceeding 100mm external diameter	No	10,00	R	R
KPA	3.4.19	Fair cutting and fitting around pipe exceeding 100mm and not exceeding 200mm external diameter	No	10,00	R	R
		Steel bar reinforcement				
KPA	3.4.20	8mm Diameter mild steel bars built in horizontally	ton	1,00	R	R
		Prestressed precast lintels				
KPA	3.4.21	110 x 75mm Lintels in lengths not exceeding 3m	m	60,00	R	R
KPA	3.4.22	110 x 75mm Lintels exceeding 3,0m but not exceeding 4,5m	m	40,00	R	R
		Fabric Reinforcement				
KPA	3.4.23	75mm Galvanised brickforce suitable for half brick walls	m	380,00	R	R
KPA	3.4.24	150mm Galvanised brickforce suitable for one brick walls	m	380,00	R	R
		Galvanised hoop iron cramps, ties, etc				
KPA	3.4.25	30 x 1,6mm Roof tie 1500mm long with one end fixed to timber and other end built into brickwork	No	30,00	R	R
		Bagging of 1:3 cement and sand mixture				
KPA	3.4.26	On brick walls	m2	80,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.5				
		WATERPROOFING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Waterproofing				
		Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
		DAMPPROOFING OF WALLS AND FLOORS				
		One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course				
KPA	3.5.1	In walls	m2	130,00	R	R
		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
KPA	3.5.2	Under surface beds, etc	m2	380,00	R	R
		Three coats paint sealer "plascon wallseal" or equal approved without membrane				
KPA	3.5.3	On parapet walls	m2	130,00	R	R
		Two coats "Brixéal" or equal approved bitumen emulsion waterproof coating				
KPA	3.5.4	On walls	m2	130,00	R	R
		JOINT SEALANTS ETC				
		<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
KPA	3.5.5	In joints between window or door frames and concrete or brickwork	m	30,00	R	R
		WATERPROOFING TO ROOFS ETC				
		TORCH-ON WATERPROOFING				
		<u>4mm Thick "Derbigum SP4" or similar approved waterproofing membrane including laps, turn-ups, turndowns, etc and preparing and priming concrete or screeded surfaces laid in accordance with the manufacturers instruction</u>				
KPA	3.5.6	On flat roofs / floors.	m2	230,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA 3.5.7	On turn-ups and turn-downs exceeding 300mm girth	m2	10,00	R	R
KPA 3.5.8	On sloping roofs	m2	250,00	R	R
KPA 3.5.9	On tops and sides of inverted beams	m2	50,00	R	R
KPA 3.5.10	On bottoms and sides of floor ducts, channels, etc	m2	50,00	R	R
KPA 3.5.11	On bottoms and sides of box gutters	m2	50,00	R	R
KPA 3.5.12	On bottoms and sides of plant boxes	m2	30,00	R	R
KPA 3.5.13	Sealing edges to brickwork or concrete	m	30,00	R	R
KPA 3.5.14	Sealing edges to brickwork or concrete including trowelled mastic bead	m	30,00	R	R
KPA 3.5.15	Additional membrane 300mm girth at internal and external angles	m	30,00	R	R
KPA 3.5.16	Dressing and sealing around pipe not exceeding 200mm external diameter, including additional membrane, gussets, collars, etc	No	10,00	R	R
KPA 3.5.17	On internal surfaces of 300 x 300 x 300mm deep sump, catchpit, etc	No	10,00	R	R
KPA 3.5.18	On concrete flat roofs including all turn-ups and turndowns and sealing edges where required.	m2	130,00	R	R
	PROTECTIVE STONE DRESSING				
	<u>19mm Crushed stone dressing evenly spread with larger stones around outlets</u>				
KPA 3.5.19	25mm Thick on waterproofing to flat roofs	m2	130,00	R	R
	PROTECTIVE ROOFING PAINT				
	<u>Two coats "Silvakote" or similar approved bituminous aluminium paint</u>				
KPA 3.5.20	On waterproofing to roofs	m2	130,00	R	R
KPA 3.5.21	On inside of existing box gutters	m2	130,00	R	R
	PROTECTIVE ROOFING SHEETING				
	<u>Type 40 bituminous fibreglass felt laid loose</u>				
KPA 3.5.22	On waterproofing to roofs	m2	40,00	R	R
	WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC				
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
KPA 3.5.23	6 x 10mm In saw cut joints in floors	m	30,00	R	R
KPA 3.5.24	6 x 10mm In expansion joints in tiled walls etc	m	30,00	R	R
KPA 3.5.25	10 x 15mm In expansion joints in tiled floors etc	m	30,00	R	R
KPA 3.5.26	10 x 15mm In expansion joints in floors including raking out expansion joint filler as necessary	m	30,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.6				
		CARPENTRY & JOINERY				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		<u>Description</u>				
		The term "planted on" shall mean the countersunk screwing of one timber member to another with the heads of screws sunk and pelleted.				
		The term "plugged" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screws sunk and pelleted				
		Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing				
		Descriptions of floors, ceilings, joinery, etc shall be deemed to include for all square cutting				
		Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.				
		Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc				
		DOORS, ETC				
		<u>Semi-solid flush panel doors with commercial veneer both sides suitable for painting and hung to steel, aluminium, timber frames</u>				
KPA	3.6.1	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	31,00	R	R
KPA	3.6.2	Provide the prime cost of R 3 500.00 per Double door in two equal leaves with rebated meeting stiles including hinges.	No	28,00	R	R
		<u>40mm Thick semi-solid flush panel doors with sapele hardwood veneer both sides suitable for varnish</u>				
KPA	3.6.3	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	30,00	R	R
KPA	3.6.4	Provide the prime cost of R 3 500.00 per Double door in two equal leaves with rebated meeting stiles including hinges.	No	28,00	R	R
		<u>44mm Thick solid door suitable for varnish or painting and hung to steel, aluminium or timber frames</u>				
KPA	3.6.5	Provide the prime cost of R 3000.00 per door leaf & hinges for single door openings	No	40,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.7				
		CEILINGS, PARTITIONS & ACCESS FLOORING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		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.				
		Ceilings				
		Unless otherwise described ceilings shall be deemed to be horizontal				
		Bulkheads				
		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. The 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				
		Steel components				
		All steel components for ceilings, partitions, etc are to be galvanized in accordance with SANS 121				
		SUSPENDED CEILINGS				
		9mm "Rhino" gypsum plasterboard with taped and skimmed joints				
KPA	3.7.1	Ceilings installed using propriety framing system all according to manufacturers specifications	m2	120,00	R	R
KPA	3.7.2	Vertical ceilings installed using propriety framing system all according to manufacturers specifications	m2	120,00	R	R
KPA	3.7.3	Horizontal bulkheads installed using propriety framing system all according to manufacturers specifications	m2	120,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		600 x 1200mm panels on pre painted (pre-coated) suspension system including main and cross tees necessary hangers, grids, etc				
		<u>Provide the prime cost of R 400.00/m2 for suspended ceiling system</u>				
KPA	3.7.4	Ceilings suspended below soffits	m2	150,00	R	R
KPA	3.7.5	Horizontal bulkheads suspended below concrete soffits	m2	130,00	R	R
KPA	3.7.6	Sloping bulkheads suspended below concrete soffits	m2	130,00	R	R
KPA	3.7.7	Extra over ceiling for opening for sprinkler head	No	30,00	R	R
KPA	3.7.8	Extra over ceiling for opening for down lighter	No	30,00	R	R
KPA	3.7.9	Extra over ceiling for 600 x 1 200mm light fitting	No	30,00	R	R
		600mm x 600mm panels on pre painted (pre-coated) exposed tee suspension system				
		<u>Provide the prime cost of R 400.00/m2 for suspended ceiling system</u>				
KPA	3.7.10	Ceilings suspended below soffits	m2	150,00	R	R
KPA	3.7.11	Horizontal bulkheads suspended below concrete soffits	m2	130,00	R	R
KPA	3.7.12	Sloping bulkheads suspended below concrete soffits	m2	130,00	R	R
KPA	3.7.13	Extra over ceiling for opening for sprinkler head	No	30,00	R	R
KPA	3.7.14	Extra over ceiling for opening for down lighter	No	30,00	R	R
KPA	3.7.15	Extra over ceiling for 600 x 600mm light fitting	No	30,00	R	R
		Cornices to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for cornices</u>				
KPA	3.7.16	Pre-painted / coated cornices plugged	m	80,00	R	R
		Shadowline to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for shadowline trim</u>				
KPA	3.7.17	Pre-painted / coated shadowline trim fixed	m	80,00	R	R
		Insulation				
KPA	3.7.18	Isotherm 100mm thick polyester thermal ceiling insulation laid on ceilings (measured nett)	m2	250,00	R	R
		PARTITIONS				
		<u>"76mm wide Rhino-Drywall System " steel stud partitioning with "12mm thick Rhino Wall board" on both sides including skirtings and top track all as per manufacturers specifications</u>				
KPA	3.7.19	Partitioning up to 2 600mm high with bottom and top tracks plugged	m2	182,00	R	R
KPA	3.7.20	Partitioning up to 2 900mm high with bottom and top tracks plugged	m2	150,00	R	R
KPA	3.7.21	Partitioning up to 3 500mm high with bottom and top tracks plugged	m2	130,00	R	R
		DOORS				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		SECTION 3					
		BUILDING WORKS					
		BILL NO.8					
		FLOOR COVERINGS, WALL LININGS, ETC					
		PREAMBLES					
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)					
		SUPPLEMENTARY PREAMBLES					
		Fixing					
		Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc					
		Surface preparation, priming, curing, cleaning etc					
		Descriptions of the items below are deemed to include all necessary preparation, priming, mixing, curing, cleaning etc as prescribed by the manufacturers of the various products					
		FLOOR COVERINGS					
		<u>Provide the prime cost amount of R500.00 per m2 for supply and delivery of vinyl floor finishes laid with approved adhesive on screeds in accordance with manufacturers instructions</u>					
KPA	3.8.1	On floors	m2	230,00	R		R
KPA	3.8.2	On treads and risers of stairs	m2	80,00	R		R
		<u>High traffic epoxy floor paint 2.5 to 3mm thick as per specialists specifications</u>					
KPA	3.8.3	On floors	m2	246,00	R		R
		<u>Provide the prime cost amount of R500.00 per m2 for supply and delivery of carpet tiles laid with approved adhesive in accordance with manufacturers instructions</u>					
KPA	3.8.4	On floors	m2	240,00	R		R
KPA	3.8.5	On treads and risers of stairs	m2	80,00	R		R
		Materials & Plant					
KPA	3.8.6	Provision for Sundry Materials & Plant	Prov	1,00	R	15 750,00	R 15 750,00
KPA	3.8.7	Allow for profit & attendance if required	%		R	15 750,00	R
		Provisional Sum					
KPA	3.8.8	Sundry Floor Coverings Wall Linings etc Works	Sum	1,00	R	15 750,00	R 15 750,00
KPA	3.8.9	Allow for profit & attendance if required	%		R	15 750,00	R
		CARRIED TO SECTION SUMMARY					R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.9				
	IRONMONGERY				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	General				
	Corrosion proof ironmongery shall be provided as far as possible and shall be fitted by professional carpenter				
	Proprietary items				
	Where applicable the manufacturers' names or product catalogue titles are given in sub-heading preceding the items				
	Prices are to be based on the specific products/articles specified. If tenders 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 employer's representative 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				
	LOCKS, ETC				
	<u>Provide the prime cost amount of R750.00 each for cylinder locksets installed complete</u>				
KPA 3.9.1	On single doors	No	100,00	R	R
KPA 3.9.2	On double doors	No	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		HINGES, BOLTS, ETC				
		<u>Hinges</u>				
KPA	3.9.3	Provide the prime cost amount of R350.00 for 100 x 75mm butt hinges (per pair) installed complete	No	190,00	R	R
		PUSH PLATES AND KICKING PLATES				
		<u>Push plates, kick plates etc</u>				
KPA	3.9.4	Provide the prime cost amount of R750.00 each for Push Plates & Kick Plates installed complete	No	50,00	R	R
		DOOR CLOSERS				
		<u>Door Closers</u>				
KPA	3.9.5	Provide the prime cost amount of R3000.00 each for door closers installed complete	No	100,00	R	R
		<u>Panic Bolts etc</u>				
KPA	3.9.6	Provide the prime cost amount of R2500.00 each for panic bolts for single doors installed complete	No	31,00	R	R
KPA	3.9.7	Provide the prime cost amount of R5500.00 each for panic bolts for double doors installed complete	No	8,00	R	R
		HANDLES				
		<u>Handles etc</u>				
KPA	3.9.8	Provide the prime cost amount of R1000.00 each for door handles installed complete	No	90,00	R	R
		CATCHES, CABIN HOOKS, ETC				
		<u>Cabin Hooks etc</u>				
KPA	3.9.9	Provide the prime cost amount of R300.00 each for cabin & coat hooks installed complete	No	10,00	R	R
		BATHROOM FITTINGS				
		<u>Toilet Roll Holder</u>				
KPA	3.9.10	Provide the prime cost amount of R1000.00 each for toilet roll holder plugged to brickwork.	No	30,00	R	R
		<u>Soap Dispenser</u>				
KPA	3.9.11	Provide the prime cost amount of R1000.00 each for soap dispenser plugged to brickwork.	No	30,00	R	R
		<u>Stainless Steel Grab Rail</u>				
KPA	3.9.12	Provide the prime cost amount of R1000.00 each for stainless steel grab rails plugged to brickwork.	No	10,00	R	R
		SUNDRIES				
		"Solid"				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		SECTION 3					
		BUILDING WORKS					
		BILL NO.10					
		METALWORK					
		PREAMBLES					
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)					
		SUPPLEMENTARY PREAMBLES					
		Descriptions of bolts, anchors, etc					
		Descriptions of bolts shall be deemed to include nuts and washers					
		Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete					
		Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described					
		Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres					
		DOOR FRAMES, DOORS, ETC					
		Galvanised pressed steel door frames					
		<u>1,6mm Thick single rebated heavy duty frame for half brick wall complete with butt hinges and including setting up, building in, filling back of frame with cement mortar, etc</u>					
KPA	3.10.1	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	130,00	R		R
KPA	3.10.2	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	80,00	R		R
		<u>1,6mm Thick single rebated heavy duty frame for one brick wall complete with butt hinges and including setting up, building in, filling back of frame with cement mortar, etc</u>					
KPA	3.10.3	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	130,00	R		R
KPA	3.10.4	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	80,00	R		R
		Materials & Plant					
KPA	3.10.5	Provision for Sundry Materials & Plant	Prov	1,00	R	179 125,00	R 179 125,00
KPA	3.10.6	Allow for profit & attendance if required	%		R	179 125,00	R
		Provisional Sum					
KPA	3.10.7	Sundry Metalworks	Sum	1,00	R	179 125,00	R 179 125,00
KPA	3.10.8	Mark up provision on sundry Metalworks	%		R	179 125,00	R

[illegible]

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.11				
	PLASTERING				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	Granolithic				
	Method				
	The method to be used shall be either the monolithic method or the bonded method				
	Preparation				
	For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic				
	Mix				
	Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic				
	Panels				
	Granolithic shall be laid in panels not exceeding 14m ² for monolithic finishes, not exceeding 9,5m ² for bonded finishes and not exceeding 6m ² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width				
	Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints				
	Laying				
	Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
		After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated				
		Curing, seasoning and protection				
		Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying				
		Colour				
		Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour				
		CEMENT SCREED				
		Preparation				
		Screed to be steel trowelled, no dry mix allowed. Screeds to be level and even with high points ground down. Test samples to be provided of screeds. Moisture content to be checked with hydrometer (moisture not to exceed 75%) or tramex meter (moisture not to exceed 60%). Reading to be taken on average of every 30m. Test samples of screed to be provided. Where applicable, screed to falls to floor drain.				
		Mix				
		1:3 Cement/sand screed mix (SABS 471 and 1083 approved) level 1 standard, 25mpa.				
		SCREED				
		Screed to falls				
		<u>Screeds wood floated, on concrete</u>				
KPA	3.11.1	25mm Thick on floors and landings	m2	310,00	R	R
KPA	3.11.2	30mm Thick on floors and landings	m2	130,00	R	R
KPA	3.11.3	30mm Thick on floors on waterproofing membrane	m2	100,00	R	R
KPA	3.11.4	Average 30mm thick on floors with upper surface to falls	m2	40,00	R	R
KPA	3.11.5	Average 30mm thick on floors with upper surface to falls and currents	m2	40,00	R	R
KPA	3.11.6	Average 40mm thick on roofs with upper surface to falls	m2	40,00	R	R
KPA	3.11.7	Average 40mm thick on roofs with upper surface to falls and currents	m2	40,00	R	R
KPA	3.11.8	25mm Thick on treads and risers of stairs including reedings	m2	40,00	R	R
KPA	3.11.9	30mm Thick on treads and risers of stairs	m2	40,00	R	R
KPA	3.11.10	30mm Thick on narrow widths not exceeding 300mm wide	m2	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.11.11	Reedings in finish on ramps	m2	40,00	R	R
KPA	3.11.12	50 x 50mm Triangular fillets against walls, kerbs, etc	m	40,00	R	R
		<u>Screeds steel trowelled, on concrete</u>				
KPA	3.11.13	25mm Thick on floors and landings	m2	380,00	R	R
KPA	3.11.14	30mm Thick on floors and landings	m2	130,00	R	R
KPA	3.11.15	30mm Thick on floors on waterproofing membrane	m2	100,00	R	R
KPA	3.11.16	Average 30mm thick on floors with upper surface to falls	m2	40,00	R	R
KPA	3.11.17	Average 30mm thick on floors with upper surface to falls and currents	m2	40,00	R	R
KPA	3.11.18	Average 40mm thick on roofs with upper surface to falls	m2	40,00	R	R
KPA	3.11.19	Average 40mm thick on roofs with upper surface to falls and currents	m2	40,00	R	R
KPA	3.11.20	25mm Thick on treads and risers of stairs including reedings	m2	40,00	R	R
KPA	3.11.21	30mm Thick on treads and risers of stairs	m2	40,00	R	R
KPA	3.11.22	30mm Thick on narrow widths not exceeding 300mm wide	m2	40,00	R	R
KPA	3.11.23	Reedings in finish on ramps	m2	40,00	R	R
KPA	3.11.24	50 x 50mm Triangular fillets against walls, kerbs, etc	m2	40,00	R	R
		GRANOLITHIC				
		<u>Untinted granolithic on concrete</u>				
KPA	3.11.25	25mm Thick on floors and landings	m2	250,00	R	R
KPA	3.11.26	30mm Thick on floors and landings	m2	130,00	R	R
KPA	3.11.27	50mm Thick on floors and landings	m2	100,00	R	R
KPA	3.11.28	Average 30mm thick on floors with upper surface to falls	m2	40,00	R	R
KPA	3.11.29	Average 30mm thick on floors with upper surface to falls and currents	m2	40,00	R	R
KPA	3.11.30	Average 40mm thick on roofs with upper surface to falls	m2	40,00	R	R
KPA	3.11.31	Average 40mm thick on roofs with upper surface to falls and currents	m2	40,00	R	R
KPA	3.11.32	25mm Thick on treads and risers of stairs including reedings	m2	40,00	R	R
KPA	3.11.33	30mm Thick on treads and risers of stairs	m2	40,00	R	R
KPA	3.11.34	30mm Thick on narrow widths not exceeding 300mm wide	m2	40,00	R	R
KPA	3.11.35	Reedings in finish on ramps	m2	40,00	R	R
KPA	3.11.36	Skirtings 100mm high	m	40,00	R	R
KPA	3.11.37	Skirtings 100mm high stepped over treads and risers	m	40,00	R	R
		EXTERNAL PLASTER				

[illegible]

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.12				
		TILING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Fixing				
		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 adhesives and grouts from the "tal Goldstar" range or equal approved.				
		WALL TILING				
		<u>Provide the prime cost amount of R 500.00 per m2 for ceramic wall tiles fixed with adhesive to:</u>				
KPA	3.12.1	On walls	m2	210,00	R	R
KPA	3.12.2	On narrow widths	m2	80,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain wall tiles fixed with adhesive to:</u>				
KPA	3.12.3	On walls	m2	250,00	R	R
KPA	3.12.4	On narrow widths	m2	80,00	R	R
		FLOOR TILING				
		<u>Provide the prime cost amount of R 500.00 per m2 for ceramic floor tiles fixed with adhesive to:</u>				
KPA	3.12.5	On floors	m2	380,00	R	R
KPA	3.12.6	On narrow widths	m2	80,00	R	R
KPA	3.12.7	On floors landings in patterns	m2	130,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain floor tiles fixed with adhesive to:</u>				
KPA	3.12.8	On floors	m2	380,00	R	R
KPA	3.12.9	On narrow widths	m2	80,00	R	R
KPA	3.12.10	On floors landings in patterns	m2	130,00	R	R

[illegible]

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.13				
	PLUMBING & DRAINAGE				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	Wire gratings				
	Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings				
	Stormwater channels				
	Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site				
	Stainless steel basins, sinks, wash troughs, urinals, etc				
	Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0)				
	Stainless steel for basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8)				
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable				
	Sealing of edges				
	Outer edges of sinks, basins,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				
	High density polyethylene (HDPE) pipes and fittings				
	Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Copper pipes				
	Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and antisiphon 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				
	Reducing fittings				
	Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained				
	Fixing of pipes				
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level				
	Paper wrapping to pipes				
	Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings				
	Disinfection of water pipework				
	Water pipework is to be disinfected at completion in accordance with SABS 1200L				
	"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 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				
	Laying, backfilling, bedding, etc of pipes				
	Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
	Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
	Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
	Unless otherwise described bedding of rigid pipes shall be Class B bedding				
	General				
	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)				
	Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends				
	Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction and disposal of surplus material on site				
	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)				
	Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes				
	As-built drawings				
	Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract/package the contractor shall hand these drawings to the employer's representative for reproducing onto the originals for handing over to the employer				
	SANITARY FITTINGS				
	NOTE:				
	All fittings butting up against wall or floor finishes or fitting into preformed openings in timber tops are to be sealed with an approved all purpose silicone sealant				
	Prices for sinks described as drop in are to include for preparing the worktop to receive the fitting and securely fixing sinks to worktops using clips provided. The contractor is to provide worktop manufacturers with details of cut outs to ensure that the cut openings are sufficiently accurate to provide proper engagement for these clips				
	Note: Stainless steel for urinals, basins, sinks, etc, shall be type 304 (18/8)				
	304 Stainless Steel				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		<u>Provide the prime cost amount of R 1800.00 each for wash troughs:</u>				
KPA	3.13.1	Single bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	5,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
KPA	3.13.2	Double bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	5,00	R	R
		Sinks				
		<u>Provide the prime cost amount of R 1800.00 each for sinks:</u>				
KPA	3.13.3	Stainless steel single end bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	5,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
KPA	3.13.4	Stainless steel double bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	5,00	R	R
		<u>Wash hand basin</u>				
KPA	3.13.5	Provide the prime cost amount of R 2200.00 each for wall mounted basin	No	5,00	R	R
		<u>Wash hand basin "Paraplegic"</u>				
KPA	3.13.6	Provide the prime cost amount of R 2200.00 each for wall mounted paraplegic basin	No	5,00	R	R
		<u>Urinals</u>				
KPA	3.13.7	Provide the prime cost amount of R 5000.00 each for wall mounted urinals	No	5,00	R	R
		Toilets etc				
KPA	3.13.8	Provide the prime cost amount of R 4000.00 each for toilets installed complete	No	10,00	R	R
KPA	3.13.9	Provide the prime cost amount of R 5000.00 each for paraplegic toilets installed complete		5,00	R	R
		WASTE UNIONS ETC				
		<u>"Cobra Watertech" or equal approved</u>				
KPA	3.13.10	40mm Wash trough waste	No	40,00	R	R
		TRAPS ETC				
		PVC				
KPA	3.13.11	Rubber waste reseal "P" 32x40mm (basin)	No	40,00	R	R
		TAPS, VALVES, ETC				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taps, showers etc				
KPA	3.13.12	Provide the prime cost amount of R 2000.00 each for taps and sink mixers	No	10,00	R	R
KPA	3.13.13	Provide the prime cost amount of R 1500.00 each for shower heads	No	10,00	R	R
KPA	3.13.14	Provide the prime cost amount of R 2000.00 each for shower mixers	No	10,00	R	R
KPA	3.13.15	22mm Brass Non-return valve	No	10,00	R	R
		SANITARY PLUMBING				
		uPVC soil and vent pipes				
KPA	3.13.16	40mm Diameter Pipes	m	60,00	R	R
KPA	3.13.17	50mm Diameter Pipes	m	60,00	R	R
KPA	3.13.18	75mm Diameter Pipes	m	60,00	R	R
KPA	3.13.19	110mm Diameter Pipes	m	60,00	R	R
		Extra over uPVC soil and vent pipes for fittings				
KPA	3.13.20	40mm Bend	No	20,00	R	R
KPA	3.13.21	40mm Inspection bend	No	20,00	R	R
KPA	3.13.22	40mm Junction	No	20,00	R	R
KPA	3.13.23	50mm BSP adaptor	No	20,00	R	R
KPA	3.13.24	50mm Bend	No	20,00	R	R
KPA	3.13.25	50mm Inspection bend	No	20,00	R	R
KPA	3.13.26	50mm Junction	No	20,00	R	R
KPA	3.13.27	50mm Access bend	No	20,00	R	R
KPA	3.13.28	50mm vent valve	No	20,00	R	R
KPA	3.13.29	50mm Two way vent valve	No	20,00	R	R
KPA	3.13.30	50mm Inspection junction	No	20,00	R	R
KPA	3.13.31	75mm Bend	No	20,00	R	R
KPA	3.13.32	75mm Inspection bend	No	20,00	R	R
KPA	3.13.33	75mm Junction	No	20,00	R	R
KPA	3.13.34	75mm Inspection junction	No	20,00	R	R
KPA	3.13.35	75mm Reducing junction	No	20,00	R	R
KPA	3.13.36	75mm Inspection reducing junction	No	20,00	R	R
KPA	3.13.37	75mm Reducer	No	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.13.38	110mm Bend	No	20,00	R	R
KPA	3.13.39	110mm Inspection bend	No	20,00	R	R
KPA	3.13.40	110mm Junction	No	20,00	R	R
KPA	3.13.41	110mm Inspection junction	No	20,00	R	R
KPA	3.13.42	110mm Reducing junction	No	20,00	R	R
KPA	3.13.43	110mm Inspection reducing junction	No	20,00	R	R
KPA	3.13.44	110mm Reducer	No	20,00	R	R
KPA	3.13.45	110mm Pan connector	No	20,00	R	R
KPA	3.13.46	110mm Two way vent valve	No	20,00	R	R
		Testing				
KPA	3.13.47	Testing waste pipe system	Item	1,00	R	R
		WATER SUPPLIES				
		Class 0 copper pipes with brass compression couplings				
KPA	3.13.48	15mm Pipes	m	60,00	R	R
KPA	3.13.49	15mm Pipes chased into brickwork or concrete	m	60,00	R	R
KPA	3.13.50	22mm Pipes	m	60,00	R	R
KPA	3.13.51	22mm Pipes chased into brickwork or concrete	m	60,00	R	R
KPA	3.13.52	28mm Pipes	m	60,00	R	R
KPA	3.13.53	28mm Pipes chased into brickwork or concrete	m	60,00	R	R
KPA	3.13.54	35mm Pipes	m	60,00	R	R
KPA	3.13.55	35mm Pipes chased into brickwork or concrete	m	60,00	R	R
KPA	3.13.56	42mm Pipes	m	60,00	R	R
KPA	3.13.57	54mm Pipes	m	60,00	R	R
KPA	3.13.58	67mm Pipes	m	60,00	R	R
KPA	3.13.59	76mm Pipes	m	60,00	R	R
KPA	3.13.60	108mm Pipes	m	60,00	R	R
		Extra over Class 0 copper pipes for capillary fittings				
KPA	3.13.61	15mm Fittings	No	20,00	R	R
KPA	3.13.62	22mm Fittings	No	20,00	R	R
KPA	3.13.63	28mm Fittings	No	20,00	R	R
KPA	3.13.64	35mm Fittings	No	20,00	R	R
KPA	3.13.65	42mm Fittings	No	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.13.66	54mm Fittings	No	20,00	R	R
KPA	3.13.67	67mm Fittings	No	20,00	R	R
KPA	3.13.68	76mm Fittings	No	20,00	R	R
KPA	3.13.69	108mm Fittings	No	20,00	R	R
		Extra over Class 0 copper pipes for brass compression fittings				
KPA	3.13.70	15mm Fittings	No	20,00	R	R
KPA	3.13.71	22mm Fittings	No	20,00	R	R
KPA	3.13.72	28mm Fittings	No	20,00	R	R
KPA	3.13.73	35mm Fittings	No	20,00	R	R
KPA	3.13.74	42mm Fittings	No	20,00	R	R
KPA	3.13.75	54mm Fittings	No	20,00	R	R
KPA	3.13.76	67mm Fittings	No	20,00	R	R
KPA	3.13.77	76mm Fittings	No	20,00	R	R
KPA	3.13.78	108mm Fittings	No	20,00	R	R
		Class 12.5 "HDPE" Pipes				
KPA	3.13.79	20mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	60,00	R	R
KPA	3.13.80	32mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	60,00	R	R
KPA	3.13.81	40mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	60,00	R	R
KPA	3.13.82	50mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	60,00	R	R
KPA	3.13.83	75mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	60,00	R	R
KPA	3.13.84	90mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	60,00	R	R
KPA	3.13.85	110mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	60,00	R	R
		Extra over "HDPE" for fittings				
KPA	3.13.86	20mm Diameter Straight Coupling	No	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	3.13.87	20mm Diameter Reducing Coupling	No	20,00	R	R
KPA	3.13.88	20mm Diameter Equal Tee	No	20,00	R	R
KPA	3.13.89	20mm Diameter Male Adaptor	No	20,00	R	R
KPA	3.13.90	20mm Diameter 90 Degree Elbow	No	20,00	R	R
KPA	3.13.91	40mm Diameter Straight Coupling	No	20,00	R	R
KPA	3.13.92	40mm Diameter Reducing Coupling	No	20,00	R	R
KPA	3.13.93	40mm Diameter Equal Tee	No	20,00	R	R
KPA	3.13.94	40mm Diameter Male Adaptor	No	20,00	R	R
KPA	3.13.95	40mm Diameter 90 Degree Elbow	No	20,00	R	R
KPA	3.13.96	50mm Diameter Straight Coupling	No	20,00	R	R
KPA	3.13.97	50mm Diameter Reducing Coupling	No	20,00	R	R
KPA	3.13.98	50mm Diameter Equal Tee	No	20,00	R	R
KPA	3.13.99	50mm Diameter Male Adaptor	No	20,00	R	R
KPA	3.13.100	50mm Diameter 90 Degree Elbow	No	20,00	R	R
KPA	3.13.101	75mm Diameter Straight Coupling	No	20,00	R	R
KPA	3.13.102	75mm Diameter Reducing Coupling	No	20,00	R	R
KPA	3.13.103	75mm Diameter Equal Tee	No	20,00	R	R
KPA	3.13.104	75mm Diameter Male Adaptor	No	20,00	R	R
KPA	3.13.105	75mm Diameter 90 Degree Elbow	No	20,00	R	R
KPA	3.13.106	90mm Diameter Straight Coupling	No	20,00	R	R
KPA	3.13.107	90mm Diameter Reducing Coupling	No	20,00	R	R
KPA	3.13.108	90mm Diameter Equal Tee	No	20,00	R	R
KPA	3.13.109	90mm Diameter Male Adaptor	No	20,00	R	R
KPA	3.13.110	90mm Diameter 90 Degree Elbow	No	20,00	R	R
KPA	3.13.111	110mm Diameter Straight Coupling	No	20,00	R	R
KPA	3.13.112	110mm Diameter Reducing Coupling	No	20,00	R	R
KPA	3.13.113	110mm Diameter Equal Tee	No	20,00	R	R
KPA	3.13.114	110mm Diameter Male Adaptor	No	20,00	R	R
KPA	3.13.115	110mm Diameter 90 Degree Elbow	No	20,00	R	R
		ELECTRIC WATER HEATERS				
		<u>"Kwikot" or similar approved including all fittings, adaptors, couplings, etc, for connection to the relevant piping.</u>				

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.14				
	PAINTWORK				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	PREPARATORY WORK TO EXISTING WORK				
	Previously painted plastered surfaces				
	Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
	Previously painted wood surfaces				
	Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
	Paintwork to steel surfaces				
	Steel surfaces to be cleaned of all rust, scale and dirt, removed by scraping or with steel wire brush. All oil and grease shall also be removed to obtain a perfectly clean surface. After removing rust from steel, steel is to be painted with a suitable rust converter and primer. Finish with a quality, extremely durable, washable and pure acrylic emulsion enamel paint. For steel door frames, clean down with galvkleen to manufacturers specification before applying primer for galvanised iron. All door frames to be finished with a Water-Based premium quality satin finish non-drip enamel paint.				
	Paintwork to timber surfaces				
	Exposed timber trusses etc. are to be sanded down to smooth finish working in direction of grain. Apply first coat paint thinned 10 parts paint and one part water for penetration. Apply 1 to 2 further coats unthinned (depending on coverage). All to manufacturer specifications. Colour as per architects spec. Timber door surfaces must be dry, clean and free of contaminants. Sand to a smooth surface, free of loose fibres. Remove all dust prior to the application of the basecoat.				
	PAINT SPECIFICATIONS				
	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.				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		NOTE: All paint products utilised must be SABS/SANS approved. All paint products utilised must be suitable for use in commercial/industrial applications. Acceptable products include professional or trade ranges from paint manufacturers. All products utilised must be suited to the application in which it will be used. Paint utilised must perform in accordance with applicable and relevant SANS codes/standards				
		The client reserves the right to reject paint coatings / paint systems that perform poorly / fail due to inferior quality/ that are not SABS approved.				
		PAINTWORK TO NEW WORK				
		"Plascon professional range" or equal approved				
		<u>One coat "Professional Gypsum & Plaster Primer" with an overcoating time of 16 hours and finish with three coats finishing coat (Professional Superior Low Sheen acrylic emulsion paint)</u>				
KPA	3.14.1	On internal walls	m2	650,00	R	R
KPA	3.14.2	On external walls	m2	650,00	R	R
KPA	3.14.3	On ceilings and beams	m2	650,00	R	R
		<u>One coat "Professional Gypsum & Plaster Primer" with an overcoating time of 16 hours and finish with three coats finishing coat (Professional Superior Matt Paint acrylic emulsion paint)</u>				
KPA	3.14.4	On partitions	m2	380,00	R	R
KPA	3.14.5	On ceilings and cornices	m2	380,00	R	R
KPA	3.14.6	On fascias and barge boards	m2	130,00	R	R
		<u>Apply one coat Professional Alkali resistant plaster primer and three coats Paint (Professional Superior Matt Paint)</u>				
KPA	3.14.7	On Rhinolite walls	m2	380,00	R	R
		ON METAL				
		<u>Prime bare metal surfaces with "Superior Quality" zinc chromate and apply one undercoat and two coats paint on steel (Professional high gloss enamel paint)</u>				
KPA	3.14.8	On doors	m2	130,00	R	R
KPA	3.14.9	On door frames	m2	130,00	R	R
KPA	3.14.10	On windows	m2	130,00	R	R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>				
KPA	3.14.11	On palisade fencing	m2	250,00	R	R
KPA	3.14.12	On steel barriers	m2	130,00	R	R
KPA	3.14.13	On balustrades	m2	130,00	R	R
KPA	3.14.14	On gates, grilles, burglar screens etc.	m2	130,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ON WOOD				
		<u>One coat wood primer, one undercoat & two coats alkyd enamel paint (Professional gloss enamel paint)</u>				
KPA	3.14.15	On boarded panelling	m2	130,00	R	R
KPA	3.14.16	On boarded ceilings	m2	130,00	R	R
KPA	3.14.17	On doors	m2	130,00	R	R
KPA	3.14.18	On door frames	m2	130,00	R	R
KPA	3.14.19	On skirtings	m	130,00	R	R
		<u>Prime bare areas with "Wood Primer" and apply two coats "Timber Varnish" (High gloss wood varnish)</u>				
KPA	3.14.20	On boarded panelling	m2	130,00	R	R
KPA	3.14.21	On boarded ceilings	m2	130,00	R	R
KPA	3.14.22	On doors	m2	130,00	R	R
KPA	3.14.23	On door frames	m2	130,00	R	R
KPA	3.14.24	On skirtings	m	130,00	R	R
		STEEL ROOFS				
		<u>Prepare surface, prime bare areas with primer and apply two coats roof paint (Plascon Nuroof paint or equal approved)</u>				
KPA	3.14.25	On metal roof sheets	m2	630,00	R	R
KPA	3.14.26	To cladding sheets	m2	250,00	R	R
		PREVIOUSLY PAINTED SURFACES				
		"Plascon professional range" or equal approved				
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
KPA	3.14.27	On internal walls	m2	500,00	R	R
KPA	3.14.28	On external walls	m2	500,00	R	R
KPA	3.14.29	On ceilings and beams	m2	380,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Matt Paint)</u>				
KPA	3.14.30	On partitions	m2	380,00	R	R
KPA	3.14.31	On ceilings and cornices	m2	380,00	R	R
KPA	3.14.32	On fascias and barge boards	m2	130,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
KPA	3.14.33	On Rhinolite walls	m2	250,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		METAL SURFACES WITH					
		<u>Prime bare metal surfaces with "Superior Quality" zinc chromate and apply one undercoat and two coats paint on steel (Professional high gloss enamel paint)</u>					
KPA	3.14.34	Windows and door frames	m2	130,00	R		R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>					
KPA	3.14.35	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat ares)	m2	130,00	R		R
		PAINT ON WOOD					
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
KPA	3.14.36	On general surfaces	m2	130,00	R		R
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
KPA	3.14.37	On boarded panelling	m2	130,00	R		R
KPA	3.14.38	On boarded ceilings	m2	130,00	R		R
KPA	3.14.39	On doors	m2	130,00	R		R
KPA	3.14.40	On door frames	m2	130,00	R		R
KPA	3.14.41	On skirtings	m	130,00	R		R
		<u>Prepare and apply two coats "Timber Varnish" (High gloss wood varnish)</u>					
KPA	3.14.42	On boarded panelling	m2	130,00	R		R
KPA	3.14.43	On boarded ceilings	m2	130,00	R		R
KPA	3.14.44	On doors	m2	130,00	R		R
KPA	3.14.45	On door frames	m2	130,00	R		R
KPA	3.14.46	On skirtings	m	130,00	R		R
		STEEL ROOFS					
		<u>Prepare surface, prime bare areas with primer and apply two coats roof paint (Plascon Nuroof paint or equal approved)</u>					
KPA	3.14.47	On metal roof sheets	m2	665,00	R		R
KPA	3.14.48	To cladding sheets	m2	130,00	R		R
		Materials & Plant					
KPA	3.14.49	Provision for Sundry Materials & Plant	Prov	1,00	R	39 375,00	R 39 375,00
KPA	3.14.50	Allow for profit & attendance if required	%		R	39 375,00	R
		Provisional Sum					
KPA	3.14.51	Sundry Paint Works	Sum	1,00	R	39 375,00	R 39 375,00
KPA	3.14.52	Allow for profit & attendance if required	%		R	39 375,00	R

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				CLUSTER 3		
				KPA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.1				
		ROADWORKS				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Testing of material and filling				
		Descriptions of earth filling, compaction, etc shall be deemed to include for all necessary testing required in accordance with the SABS 1200 series				
		Site preparation				
KPA	4.1.1	Trim and level terraced area and compact to set levels.	m2	380,00	R	R
		Digging up topsoil				
KPA	4.1.2	Digging up topsoil to an average depth of 150mm and preserving for use as filling	m3	80,00	R	R
		BULK EXCAVATION, FILLING ETC				
KPA	4.1.3	Open face excavation in earth over sloping site	m3	50,00	R	R
		Excavation				
KPA	4.1.4	Excavate in earth not exceeding 1000mm deep	m3	30,00	R	R
		Keeping excavations free of water				
KPA	4.1.5	Keeping excavations free of water	Item	1,00	R	R
		Extra over all excavations for carting away				
KPA	4.1.6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	57,00	R	R
		LAYER WORK				
		<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
KPA	4.1.7	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	20,00	R	R
		<u>Filling supplied by the contractor under parking areas, roadways, etc</u>				
KPA	4.1.8	25mm thick clean, dry river sand layer treated with an approved weed killer at a rate of 50 grams per square metre, spread and levelled to receive paving blocks (elsewhere)	m2	130,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KPA	4.1.9	G8 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.10	G7 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.11	G7 Gravel-soil material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.12	Extra over for G7 stabilised with Portland cement compacted to 95% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.13	Subbase course of G6 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.14	G5 Natural gravel material compacted in 150mm layers to 93% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.15	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.16	Base course of G4 natural gravel material in 150mm layers compacted to 98% Mod AASHTO density	m3	10,00	R	R
KPA	4.1.17	G2 base compacted to 100% Mod AASHTO density	m3	10,00	R	R
		Compaction of surfaces				
KPA	4.1.18	Compaction of ground surfaces under roadworks etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density (Roadbed)	m2	380,00	R	R
		SOIL POISONING				
		<u>Weedkiller (active ingredients metolachlor 102,8 g/l, terbitilasien 248,6 g/l and atrasien 248,6 g/l) or similar approved mixed in the proportion of 100 ml weedkiller to 100l water and applied at a rate of 10 l/m2</u>				
KPA	4.1.19	Under roads, paving etc.	m2	380,00	R	R
		TESTS				
KPA	4.1.20	<u>Prescribed tests to determine degree of compaction or similar approved properties of ground or filling</u>				
KPA	4.1.21	"Modified AASHTO Density" test	No	1,00	R	R
KPA	4.1.22	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	1,00	R	R
KPA	4.1.23	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	1,00	R	R
KPA	4.1.24	Atterberg limits test in accordance with methods A2 to A4 of TMH1	No	1,00	R	R
KPA	4.1.25	UCS test in accordance with method A14 of TMH 1	No	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		PAVING				
		<u>Provide the prime cost of R 500.00 per square metre for paving bricks delivered to site in accordance with SANS 1058, laid to falls on and including 20mm thick sand layer with joints filled in with sand, compacted with a vibration compactor</u>				
KPA	4.1.26	Paving to roadwork and parking to falls	m2	380,00	R	R
KPA	4.1.27	Extra over for curved edges	m	130,00	R	R
		Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing				
		KERBS ETC				
KPA	4.1.28	Fig.1 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.29	Fig.2 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.30	Fig.3 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.31	Fig.4 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.32	Fig.5 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.33	Fig.6 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.34	Fig.6 Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.35	Fig.7 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.36	Fig.8 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.37	Fig.8b Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.38	Fig.8c Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.39	Fig.12 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.40	Fig.14 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KPA	4.1.41	Fig.16 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
		TRAFFIC SIGNS AND ROAD MARKINGS				
		<u>Prepare and apply one coat reflective road marking paint on bituminous road surfacing, precast concrete paving blocks, etc</u>				
KPA	4.1.42	100mm Wide line	m	30,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.2				
		DRAINAGE				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Laying, backfilling, bedding, etc of pipes				
		Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
		Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
		Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
		Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
		Unless otherwise described bedding of rigid pipes shall be Class B bedding				
		STORM WATER PIPE				
		Heavy duty uPVC storm water pipes				
KPA	4.2.1	110mm Diameter pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	80,00	R	R
		Extra over for uPVC fittings				
KPA	4.2.2	110mm Bend	No	20,00	R	R
KPA	4.2.3	110mm Junction	No	20,00	R	R
KPA	4.2.4	110mm Access junction	No	20,00	R	R
KPA	4.2.5	110mm Rodding Eye	No	20,00	R	R
		uPVC pipe Class 34 HD				
KPA	4.2.6	160mm Pipes laid in and including trenches(trench to be opened and banked at 1;3 grade allowing pipe to be exposed)	m	76,00	R	R
		Extra over for uPVC fittings				
KPA	4.2.7	160mm Bend	No	20,00	R	R
KPA	4.2.8	160mm Junction	No	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT	
KPA	4.2.9	160mm Access junction	No	20,00	R		R	
KPA	4.2.10	160mm Rodding Eye	No	20,00	R		R	
KPA	4.2.11	Catch pits and junction boxes	No	20,00	R		R	
		MANHOLES ETC						
		<u>Construct 1420mm x 1420mm brick manholes with medium duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>						
KPA	4.2.12	Over 0m and up to 1.0m	No	4,00	R		R	
KPA	4.2.13	Over 1.0m and up to 2.0m	No	3,00	R		R	
KPA	4.2.14	Over 2m and up to 3m	No	3,00	R		R	
KPA	4.2.15	Over 3m and up to 4m	No	3,00	R		R	
		<u>Construct 1420mm x 1420mm brick manholes with heavy duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>						
KPA	4.2.16	Over 0m and up to 1.0m	No	1,00	R		R	
KPA	4.2.17	Over 1.0m and up to 2.0m	No	1,00	R		R	
KPA	4.2.18	Over 2m and up to 3m	No	1,00	R		R	
KPA	4.2.19	Over 3m and up to 4m	No	1,00	R		R	
		Testing Drainage System						
KPA	4.2.20	Testing soil drainage pipe system	Item	1,00	R		R	
		<u>Materials & Plant</u>						
KPA	4.2.21	Provision for Sundry Materials & Plant	Prov	1,00	R	7 875,00	R	7 875,00
KPA	4.2.22	Allow for profit & attendance if required	%		R	7 875,00	R	
		Provisional Sum						
KPA	4.2.23	Sundry Drainage Works	Sum	1,00	R	7 875,00	R	7 875,00
KPA	4.2.24	Allow for profit & attendance if required	%		R	7 875,00	R	
		CARRIED TO SECTION SUMMARY					R	

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.3				
		SEWER RETICULATION				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Laying, backfilling, bedding, etc of pipes				
		Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
		Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
		Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
		Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
		Unless otherwise described bedding of rigid pipes shall be Class B bedding				
		Sewer manhole/ inspection chambers				
		<u>Construct 1420mm x 1420mm brick manholes with medium duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>				
KPA	4.3.1	Over 0m and up to 1.0m	No	3,00	R	R
KPA	4.3.2	Over 1.0m and up to 2.0m	No	3,00	R	R
KPA	4.3.3	Over 2m and up to 3m	No	3,00	R	R
KPA	4.3.4	Over 3m and up to 4m	No	2,00	R	R
		<u>Construct 1420mm x 1420mm brick manholes with heavy duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>				
KPA	4.3.5	Over 0m and up to 1.0m	No	1,00	R	R
KPA	4.3.6	Over 1.0m and up to 2.0m	No	1,00	R	R
KPA	4.3.7	Over 2m and up to 3m	No	1,00	R	R
KPA	4.3.8	Over 3m and up to 4m	No	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		CONNECTION OF MAIN SEWER LINE TO BUILDINGS				
		<u>Heavy duty (Class 34) uPVC sewer and drain pipes</u>				
KPA	4.3.9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	30,00	R	R
KPA	4.3.10	110mm Pipes laid in and including trenches not exceeding 1m deep	m	20,00	R	R
		<u>Extra over heavy duty (Class 34) uPVC sewer and drain pipes for fittings</u>				
KPA	4.3.11	110mm Bend	No	10,00	R	R
KPA	4.3.12	110mm Junction	No	10,00	R	R
KPA	4.3.13	110mm Access bend	No	10,00	R	R
KPA	4.3.14	110mm Access junction	No	10,00	R	R
KPA	4.3.15	110mm Rodding eye	No	10,00	R	R
		Class 34 uPVC pipes				
KPA	4.3.16	160mm Pipes laid in and including trenches(trench to be opened and banked at 1;3 grade allowing pipe to be exposed)	m	42,00	R	R
		Extra over items for uPVC fittings				
KPA	4.3.17	160 x 110 mm Diameter Y junction	No	10,00	R	R
KPA	4.3.18	160 x 160 mm Diameter Y junction	No	10,00	R	R
		Channel bends				
KPA	4.3.19	160mm Diameter 45 degree bend	No	10,00	R	R
KPA	4.3.20	160mm Diameter 90 degree bend	No	10,00	R	R
		Sockets				
KPA	4.3.21	160mm Diameter	No	10,00	R	R
		End caps				
KPA	4.3.22	160mm Diameter	No	10,00	R	R
		SUNDRIES				
KPA	4.3.23	Excavation in earth for pipe trenches, chambers, etc	m3	10,00	R	R
KPA	4.3.24	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the contractor	m3	10,00	R	R
KPA	4.3.25	Risk of collapse to sides of trenches	m2	40,00	R	R
KPA	4.3.26	Extra over backfilling to drain trenches, chambers, etc for Class B bedding cradle of compacted selected granular material	m3	10,00	R	R
KPA	4.3.27	25Mpa unreinforced concrete encasing to horizontal pipes laid in trenches N.E 1m deep	m3	10,00	R	R
		WATER				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		ROLLER SHUTTERS & HANGAR DOORS					
KPA	5.9	Provide the sum of R273,000.00 for Roller Shutters & Hangar Doors by an approved sub-contractor	Sum	1,00	R 273 000,00	R	273 000,00
KPA	5.10	Allow for profit & attendance if required	%		R 273 000,00	R	
		GENERAL GLAZING					
KPA	5.11	Provide the sum of R136,000.00 for General Glazing by an approved sub-contractor	Sum	1,00	R 136 000,00	R	136 000,00
KPA	5.12	Allow for profit & attendance if required	%		R 136 000,00	R	
		ALUMINIUM FACADE CLADDING, SHOPFRONTS, WINDOWS AND DOORS					
KPA	5.13	Provide the sum of R273,000.00 for aluminium façade cladding, shopfronts, window and door installation by an approved sub-contractor	Sum	1,00	R 273 000,00	R	273 000,00
KPA	5.14	Allow for profit & attendance if required	%		R 273 000,00	R	
		SIGNAGE					
KPA	5.15	Provide the sum of R136,000.00 for corporate and directional signage by an approved subcontractor	Sum	1,00	R 136 000,00	R	136 000,00
KPA	5.16	Allow for profit & attendance if required	%		R 136 000,00	R	
		BLINDS, FURNITURE & FITTINGS					
KPA	5.17	Provide the sum of R205,000.00 for blinds, furniture and fittings by an approved subcontractor	Sum	1,00	R 205 000,00	R	205 000,00
KPA	5.18	Allow for profit & attendance if required	%		R 205 000,00	R	
		TENANT TEMPORARY RELOCATION & REINSTATEMENT					
KPA	5.19	Provide the sum of R 136,000.00 for tenant temporary relocation and reinstatement works by an approved subcontractor	Sum	1,00	R 136 000,00	R	136 000,00
KPA	5.20	Allow for profit & attendance if required	%		R 136 000,00	R	
		ASBESTOS REMOVAL					
KPA	5.21	Provide the sum of R136,000.00 for the Removal & Safe Disposal of Asbestos by an approved subcontractor	Sum	1,00	R 136 000,00	R	136 000,00
KPA	5.22	Allow for profit & attendance if required	%		R 136 000,00	R	
		GUTTERS & RAINWATER DISPOSAL SYSTEMS					
KPA	5.23	Provide the sum of R273,000.00 for Gutters & Rainwater Disposal Systems by an approved subcontractor	Sum	1,00	R 273 000,00	R	273 000,00
KPA	5.24	Allow for profit & attendance if required	%		R 273 000,00	R	

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS					
		GENERAL ELECTRICAL INSTALLATIONS					
KPA	5.25	Provide the sum of R821,000.0 for General Electical Installations by an approved subcontractor	Prov	1,00	R	821 000,00	R 821 000,00
KPA	5.26	Allow for profit & attendance if required	%		R	821 000,00	R
		SUB - STATION INSTALLATIONS					
KPA	5.27	Provide the sum of R136,000.00 for Sub Station Installations by an approved subcontractor	Sum	1,00	R	136 000,00	R 136 000,00
KPA	5.28	Allow for profit & attendance if required	%		R	136 000,00	R
		UPS INSTALLATIONS					
KPA	5.29	Provide the sum of R136,000.00 for UPS Installations by an approved subcontractor	Sum	1,00	R	136 000,00	R 136 000,00
KPA	5.30	Allow for profit & attendance if required	%		R	136 000,00	R
		GENERATOR INSTALLATION					
KPA	5.31	Provide the sum of R136,000.00 for the Generator Installation by an approved sub-contractor	Sum	1,00	R	136 000,00	R 136 000,00
KPA	5.32	Allow for profit & attendance if required	%		R	136 000,00	R
		FIRE DETECTION & FIRE STOPPING INSTALLATION					
KPA	5.33	Provide the sum of R205,000.00 for the Fire Detection & Fire Stopping Installation by an approved sub-contractor	Sum	1,00	R	205 000,00	R 205 000,00
KPA	5.34	Allow for profit & attendance if required	%		R	205 000,00	R
		ACCESS CONTROL					
KPA	5.35	Provide the sum of R67,000.00 for the Access Control System installation by an approved sub-contractor	Sum	1,00	R	67 000,00	R 67 000,00
KPA	5.36	Allow for profit & attendance if required	%		R	67 000,00	R
		CCTV INSTALLATION					
KPA	5.37	Provide the sum of R67,000.00 for CCTV installation by an approved sub-contractor	Sum	1,00	R	67 000,00	R 67 000,00
KPA	5.38	Allow for profit & attendance if required	%		R	67 000,00	R
		INTERNET AND TELECOMMUNICATION INSTALLATION					
KPA	5.39	Provide the sum of R136,000.00 for the internet and telecommunication installation by an approved subcontractor	Sum	1,00	R	136 000,00	R 136 000,00
KPA	5.40	Allow for profit & attendance if required	%		R	136 000,00	R

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				CLUSTER 3		
				KPA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 6				
		WASTE DISPOSAL , REPURPOSING & RECYCLING				
		BILL NO.1				
		WASTE DISPOSAL , REPURPOSING & RECYCLING				
		GENERAL				
		All waste shall be disposed / recycled / repurposed by permitted disposal / recycling / repurposing facilities and safe disposal /recycling /repurposing certificates shall be provided for all waste removed from site				
		The contractor shall maintain and provide records and manifests of waste removed from the site and corresponding waybills and disposal, repurposing and recycling certificates issued by permitted waste facilities				
		The contractor shall provide copies of permits of disposal / recycling / repurposing facilities for client approval prior to transferring of any waste				
		Hazardous Waste				
		Provision is made for performing the required waste classifications and subsequent disposal of any hazardous waste streams encountered during construction works				
		Recycling / Repurposing Return				
		Provision is made for a monetary return to the client for items that are recycled or repurposed. The return is reflected in these bills of quantities as a negative amount. The negative amount accounts for the monetary return to the client. These bills of quantities have provided a baseline estimate of quantities of materials to be recycled/repurposed and actual quantities will vary based on prevailing site conditions and requirements				
		GENERAL WASTE				
KPA	6.1	General building / building rubble waste to landfill	ton	80,00	R	R
		RECYCLING / REPURPOSING RETURN				
KPA	6.2	Glass	Kg	250,00	(-R	(-R)
KPA	6.3	Plastics	Kg	250,00	(-R	(-R)
KPA	6.4	Steel	Kg	250,00	(-R	(-R)
KPA	6.5	Stainless Steel	Kg	250,00	(-R	(-R)
KPA	6.6	Copper	Kg	250,00	(-R	(-R)
KPA	6.7	Aluminium	Kg	250,00	(-R	(-R)
KPA	6.8	Brass	Kg	250,00	(-R	(-R)
KPA	6.9	Iron	Kg	250,00	(-R	(-R)

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KING SHAKA INTERNATIONAL AIRPORT - KSIA

				CLUSTER 3		
				KSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 1				
		BILL NO.1				
		PRELIMINARIES				
		PREAMBLES FOR TRADES				
		The Model Preambles for Trades (2008 edition) 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 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 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 Model Preambles and in any supplementary preambles				
		SUPPLEMENTARY PREAMBLES				
		Fixed Charge Items - In general the sum tendered for each fixed charge item will be paid only after the obligations in respect of that item have, in the opinion of the employer/employers agent have been met. Proof of obligations having been met shall be provided to support payment				
		Time Related Items - The amount shall cover all the contractors time related obligations for the entire site irrespective of number of work packages being executed on the site. Payment shall be made for periods of construction works on site. Periods between work packages where there is no construction works will not attract time related charges unless otherwise approved by the employers agent.				
		Value Related Items - The sum tendered for each value related item will only be paid as a proportion of work completed to date on each certificate. The proportion of the amount paid shall be the same as the proportion of work complete to date which is cumulative cost to date divided by the contact sum Provisional amounts included under value related items shall only be utilised on written instruction of the employers agent and will be paid at net cost plus agreed mark up Specialised PPE is defined as PPE other than "Standard PPE" Standard PPE is defined as: Overalls/Uniforms, Reflector Jackets, Safety Boots, Gloves, Dust Masks, Goggles, Ear Plugs & Hard Hats all of which must be SABS/SANS compliant				
		FIXED CHARGE ITEMS				
KSI	1.1	General Insurance Requirement (Sureties, guarantees, bonds, workman's compensation etc)	Sum	1,00	R	R
KSI	1.2	Contract works insurance	Sum	1,00	R	R
KSI	1.3	Public liability insurance	Sum	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
KSI	1.4	Other fixed obligations	Sum	1,00	R		R
		TIME RELATED ITEMS					
		<u>Operation and Maintenance of Facilities on Site, for duration of construction, except where otherwise stated</u>					
KSI	1.5	Offices (Accommodates up to 5 staff x 1 off)	month	8,00	R		R
KSI	1.6	Storage sheds (12m x 2.4m x 1 off - Includes Delivery & Removal)	month	8,00	R		R
KSI	1.7	Ablution & Latrine facilities (5 x Male & 3 x Urinal & 3 x Female & 1 x Paraplegic & 2 x Standalone Units)	month	8,00	R		R
KSI	1.8	Electric Power & Lighting	month	8,00	R		R
KSI	1.9	Water supplies, electric power and communications	month	8,00	R		R
		Supervision					
		<u>Supervisor/Foreman</u>					
KSI	1.10	Site Supervision for the duration of the contract (x 1 Resource)	month	8,00	R		R
		<u>Safety Management</u>					
KSI	1.11	Provision of full time Construction Site Safety Officer (x 1 Resource)	month	8,00	R		R
KSI	1.12	Compliance with the Occupational Health and Safety Act (OHSA) and Regulations (including the Construction Regulations, 2014)	month	8,00	R		R
KSI	1.13	Site Security	month	8,00	R		R
KSI	1.14	Signage for the site	month	8,00	R		R
KSI	1.15	Other time related obligations	month	8,00	R		R
		VALUE RELATED ITEMS					
KSI	1.16	Contractual requirements	Sum	1,00	R		R
KSI	1.17	Provision for Specialised PPE Requirements	Prov	1,00	R	19 017,98	R 19 017,98
KSI	1.18	Allow for profit & attendance if required	%		R	19 017,98	R
KSI	1.19	Provision for Location and Protection of Existing Underground Services	Prov	1,00	R	11 410,79	R 11 410,79
KSI	1.20	Allow for profit & attendance if required	%		R	11 410,79	R
KSI	1.21	Provision for Compliance with Environmental requirements	Prov	1,00	R	11 410,79	R 11 410,79
KSI	1.22	Allow for profit & attendance if required	%		R	11 410,79	R
KSI	1.23	Provision for ACSA Training and Airports Permits (ACSA Issue)	Prov	1,00	R	38 035,96	R 38 035,96
KSI	1.24	Allow for profit & attendance if required	%		R	38 035,96	R
		Materials & Plant					
KSI	1.25	Provision for Sundry Materials & Plant	Prov	1,00	R	24 000,00	R 24 000,00
KSI	1.26	Allow for profit & attendance if required	%		R	24 000,00	R
		Provisional Sum					
KSI	1.27	Sundry preliminary requirements	Prov	1,00	R	24 000,00	R 24 000,00
KSI	1.28	Allow for profit & attendance if required	%		R	24 000,00	R

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				CLUSTER 3		
				KSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 2				
		BILL NO.1				
		LABOUR SCHEDULE				
		GENERAL				
		labour rates will be utilised where 'dayworks' are deemed required as specified by the employers agent.				
		Daywork - The employer's Agent may schedule day works where appropriate for various classes of labour. The unit rates for labour shall cover overhead charges & profit, insurances, wage costs, salary costs, use of equipment & tools and transport & Allowances costs.				
		Operating Times				
		Normal Hours: Regarded as between 06:00am and 18:00pm weekdays				
		After Hours: Regarded as between 06:00pm and 06:00am weekdays				
		After Hours: Regarded as between 06:00am and 23:59pm Saturdays				
		Sundays & Public Holidays: Regarded as Between 0:00am and 23:59pm on Sundays and Public Holidays				
		Additional Supervisor / Foreman (General Building)				
KSI	2.1	Normal Hours	Man Hours	40,00	R	R
KSI	2.2	After Hours	Man Hours	20,00	R	R
KSI	2.3	Sundays & Public Holidays	Man Hours	10,00	R	R
		Additional Supervisor / Foreman (Civil Works)				
KSI	2.4	Normal Hours	Man Hours	40,00	R	R
KSI	2.5	After Hours	Man Hours	20,00	R	R
KSI	2.6	Sundays & Public Holidays	Man Hours	10,00	R	R
		Handyman				
KSI	2.7	Normal Hours	Man Hours	40,00	R	R
KSI	2.8	After Hours	Man Hours	20,00	R	R
KSI	2.9	Sundays & Public Holidays	Man Hours	10,00	R	R
		Brick Layer				
KSI	2.10	Normal Hours	Man Hours	40,00	R	R
KSI	2.11	After Hours	Man Hours	20,00	R	R
KSI	2.12	Sundays & Public Holidays	Man Hours	10,00	R	R
		Carpenter				
KSI	2.13	Normal Hours	Man Hours	40,00	R	R
KSI	2.14	After Hours	Man Hours	20,00	R	R
KSI	2.15	Sundays & Public Holidays	Man Hours	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Tiler				
KSI	2.16	Normal Hours	Man Hours	40,00	R	R
KSI	2.17	After Hours	Man Hours	20,00	R	R
KSI	2.18	Sundays & Public Holidays	Man Hours	10,00	R	R
						R -
		Plasterer				
KSI	2.19	Normal Hours	Man Hours	40,00	R	R
KSI	2.20	After Hours	Man Hours	20,00	R	R
KSI	2.21	Sundays & Public Holidays	Man Hours	10,00	R	R
		Painter				
KSI	2.22	Normal Hours	Man Hours	40,00	R	R
KSI	2.23	After Hours	Man Hours	20,00	R	R
KSI	2.24	Sundays & Public Holidays	Man Hours	10,00	R	R
		Welder				
KSI	2.25	Normal Hours	Man Hours	40,00	R	R
KSI	2.26	After Hours	Man Hours	20,00	R	R
KSI	2.27	Sundays & Public Holidays	Man Hours	10,00	R	R
		General Assistant				
KSI	2.28	Normal Hours	Man Hours	550,00	R	R
KSI	2.29	After Hours	Man Hours	30,00	R	R
KSI	2.30	Sundays & Public Holidays	Man Hours	20,00	R	R
		Shutterhand / Formwork Specialist Installer				
KSI	2.31	Normal Hours	Man Hours	40,00	R	R
KSI	2.32	After Hours	Man Hours	20,00	R	R
KSI	2.33	Sundays & Public Holidays	Man Hours	10,00	R	R
		Waterproofing Technician / Specialist Installer				
KSI	2.34	Normal Hours	Man Hours	40,00	R	R
KSI	2.35	After Hours	Man Hours	20,00	R	R
KSI	2.36	Sundays & Public Holidays	Man Hours	10,00	R	R
		Ceiling & Partitions Specialist Installer				
KSI	2.37	Normal Hours	Man Hours	40,00	R	R
KSI	2.38	After Hours	Man Hours	20,00	R	R
KSI	2.39	Sundays & Public Holidays	Man Hours	10,00	R	R

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				CLUSTER 3		
				KSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.1				
		ALTERATIONS				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		GENERAL				
		In taking down and removing existing work the utmost care shall be observed to prevent any structural or other damage to remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc to ensure the stability of all structures during alterations work.				
		Special care shall be exercised during the progress of the work to ensure that any electrical installations, water supply pipes, telephones and other services which may be encountered are not interfered with and notice shall be given to the Employer's Representative if any disconnection or alterations become necessary.				
		Any water supply and other piping that may be encountered and which is found necessary to disconnect or cut shall, after such disconnection or cutting has been authorised by the Employer's Representative, be effectively stopped off and any new connections that may be necessary made with the proper tees, junctions pieces, etc. to the satisfaction of the Employer's Representative.				
		The Contractor shall afford every facility to workmen not under his control making disconnections and new connections as required to any service.				
		MATERIALS FROM ALTERATIONS, ETC				
		Old materials to be carted away				
		Old materials from alterations, where described as to be "removed" as well as all rubbish, etc. must be regularly carted from the site and not be allowed to accumulate on or around the site.				
		Old materials not to be re-used				
		None of old materials are to be used for new work except where specifically described as being "set aside for re-use". The clients agent will indicate materials that are to be 'set aside for re-use' at the issuing of each work package				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Handing over materials				
	Where certain materials or articles from alterations are described as to be "handed over" to the Employer's Representative, such material or articles shall be properly stored by the Contractor, until handing over thereof. The Contractor must obtain an official receipt listing the materials or articles and dates of handing over. If the Contractor fails to submit the receipt when requested, it shall be deemed that the materials or articles are still in his possession and he will be held liable to the client for the full replacement value thereof, which amount will be deducted from monies due to the Contractor. The clients agent will at issuing of each work package indicate materials that are to be handed over				
	EXISTING BUILDINGS				
	The existing buildings will be in use and occupied during the progress of the contract and the contractor will be required to carry out the works in such a manner as will least interfere with the occupants and with the minimum of disturbance.				
	Contractors are also to note that due to the buildings being occupied the repairs and renovations works will be required to be executed in a specific order as will be determined by the Employer' Representative.				
	SIZE PERTAINING TO EXISTING WORK				
	The Contractor is advised to check all dimensions affecting the existing buildings on the site and he will be held solely responsible for the correctness of sizes of all new work.				
	All sizes given in relation to the existing work are approximate				
	MAKING GOOD DAMAGED WORK				
	The Contractor shall make good in all trades to existing work where damaged or disturbed through the alterations with all necessary new materials to match the existing				
	FORMING NEW OPENINGS OR ALTERING				
	Openings in existing walls				
	Descriptions of forming new openings or altering openings in existing walls shall be deemed to include breaking out for and forming new brick, in situ concrete or prestressed concrete lintels including all reinforcement, formwork, turning pieces, etc, building up jambs or portion of openings as described with brickwork properly toothed and bonded to existing, building cavities of hollow walls solid where necessary and making good finishes all around on both sides and into reveals as described.				
	BUILDING UP OPENINGS				
	Descriptions of building up existing openings where given in number shall be deemed to include preparing existing surfaces all around, brickwork properly toothed and bonded to existing, wedging up and making good on both sides as described.				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		PAINTWORK				
		Where plasterwork on walls, ceilings, etc. are required to be patched or made good, prices are to include for the appropriate priming coat and one coat undercoat to receive paint finishing coats which are measured elsewhere.				
		TEMPORARY BARRIERS, SCREENS, ETC				
		Temporary barriers, screens, etc including removal on completion				
KSI	3.1.1	Temporary hoarding of galvanised diamond mesh covered with shade cloth 2.7m high and removal later	m	20,00	R	R
KSI	3.1.2	Extra over for galvanised mild steel double gate and frame 1 511 x 2032mm high	No	2,00	R	R
KSI	3.1.3	Drywall barricade not exceeding 2.4m high of galvanised steel channel section rails and studs covered on one side with 12,7mm gypsum plasterboard and finished with two coats interior quality PVA emulsion paint, including corners, ends, etc	m	30,00	R	R
KSI	3.1.4	Extra over preceding item for hollow core single door 813 x 2032mm high, including steel frame, two-lever mortice lock, primer and two coats paint	No	2,00	R	R
KSI	3.1.5	Hoarding between concrete floor and ceiling formed of suitable timber framing with 22mm thick shutter board	m2	10,00	R	R
KSI	3.1.6	Metal sheeting hoarding 2m high fixed to steel posts at equal centres including paint to external face of sheets and posts.	m2	10,00	R	R
KSI	3.1.7	Temporary 12mm shutter board protection lining to walls, floors and ceilings including removing after completion and making good to walls, floors and ceilings	m2	20,00	R	R
		REMOVAL OF EXISTING WORK				
		Breaking up and removing mass concrete including reinforcing and carting to approved disposal area within the airport.				
KSI	3.1.8	Stairs with landings, waist, treads, risers, ramps, surface beds, strip footing, reinforced concrete etc	m3	20,00	R	R
		Breaking down and removing existing concrete work including all steel reinforcing, steel corners bolts etc and carting to approved disposal area within the airport.				
KSI	3.1.9	Concrete Columns, beams and slabs not exceeding 3m high	m3	10,00	R	R
KSI	3.1.10	Manholes, bases, strip footings etc not exceeding 1.5m deep	m3	10,00	R	R
KSI	3.1.11	Surface beds not exceeding 100mm thick	m3	10,00	R	R
KSI	3.1.12	Surface beds exceeding 100mm thick and not exceeding 150mm thick	m3	10,00	R	R
		Breaking down and removing brickwork including all steel door frames, window frames etc and carting to approved disposal area within the airport.				
KSI	3.1.13	Half brick wall	m2	30,00	R	R
KSI	3.1.14	One brick wall	m2	30,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taking up and removing vinyl floor coverings, tiles, carpets, etc				
KSI	3.1.15	Ceramic / Porcelain / Marble tiles to floor including preparing floor for new floor covering	m2	70,00	R	R
KSI	3.1.16	Vinyl / plastic / carpet floor covering including preparing floors for new floor coverings	m2	30,00	R	R
		Hacking up and removing off coverings to walls, columns, partitionwalls etc. including preparing surfaces for new finishes				
KSI	3.1.17	Tiles from walls, columns	m2	20,00	R	R
KSI	3.1.18	Wall paper covering from walls, columns etc.	m2	10,00	R	R
		Taking out / off and removing sundry metalwork				
KSI	3.1.19	Stainless steel / mild steel barrier not exceeding 150mm diameter including vertical supports and making good to concrete to receive new finish	m	30,00	R	R
		Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)				
KSI	3.1.20	Timber single door and steel frame not exceeding 2,5m ²	No	10,00	R	R
KSI	3.1.21	Timber double door and steel frame exceeding 2,5m ² and not exceeding 5m ²	No	5,00	R	R
KSI	3.1.22	Timber double door and steel frame exceeding 5m ² and not exceeding 7.5m ²	No	3,00	R	R
KSI	3.1.23	Glazed aluminium/steel/timber window not exceeding 2,5m ²	No	10,00	R	R
KSI	3.1.24	Glazed aluminium/steel/timber window exceeding 2,5m ² and not exceeding 5m ²	No	5,00	R	R
KSI	3.1.25	Glazed aluminium/steel/timber window exceeding 5m ² and not exceeding 7.5m ²	No	3,00	R	R
		Taking down and removing roofs, floors, panelling, ceilings, partitions, etc				
KSI	3.1.26	Suspended ceilings, including suspension grid, hangers, cornices, etc not exceeding 3.0m high	m2	80,00	R	R
KSI	3.1.27	Drywall partitions not exceeding 3.0m high, including doors, glazed borrowed lights, etc	m	60,00	R	R
KSI	3.1.28	Toilet partitioning not exceeding 3.0 m high	m2	20,00	R	R
		Taking out and removing sundry joinery work, fittings, etc				
KSI	3.1.29	Skirtings - various widths	m	40,00	R	R
KSI	3.1.30	Timber sills - various widths	m	10,00	R	R
KSI	3.1.31	Timber wall mounted cupboard - Measured by surface area covered on the wall	m2	10,00	R	R
KSI	3.1.32	Timber floor mounted cupboard - Measured by surface area covered on the floor	m2	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	3.1.33	Timber sink cupboard, including sink and disconnecting & terminating waste pipe - Measured by surface area covered on the floor	m2	10,00	R	R
KSI	3.1.34	Timber/stone counters	m2	10,00	R	R
		Taking out/off and removing sundry metalwork				
KSI	3.1.35	Steel pipe handrails from walls, including brackets, and making good plaster finish	m	10,00	R	R
		Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screed, plaster, tile finishes, etc				
KSI	3.1.36	Not exceeding 100mm thick Screed from floors	m2	100,00	R	R
KSI	3.1.37	Internal plaster from walls and columns not exceeding 3m high	m2	100,00	R	R
KSI	3.1.38	Internal plaster from ceilings and beams not exceeding 3m high	m2	100,00	R	R
KSI	3.1.39	External plaster from walls, columns and beams not exceeding 3m high	m2	100,00	R	R
		POWER WASH ON EXISTING WALLS				
KSI	3.1.40	Power wash on existing walls (Internal and external walls) as per Employer Agent instruction	m2	100,00	R	R
		Taking down and removing				
KSI	3.1.41	Mesh fence with steel posts and droppers	m2	150,00	R	R
KSI	3.1.42	Steel palisade fence with steel posts and droppers	m2	150,00	R	R
KSI	3.1.43	Concrete palisade fence with concrete posts and droppers	m2	150,00	R	R
KSI	3.1.44	Security fence with 45 degree barbed wire overhang with posts and droppers	m2	150,00	R	R
KSI	3.1.45	Half brick boundary or yard wall	m2	50,00	R	R
KSI	3.1.46	One brick boundary or yard wall	m2	50,00	R	R
KSI	3.1.47	Clearvu Fence not exceeding 2,0m high with steel posts	m	50,00	R	R
		Lift and removing pre-cast concrete including bedding, etc				
KSI	3.1.48	60mm Interlocking paving	m2	150,00	R	R
KSI	3.1.49	80mm Interlocking paving	m2	150,00	R	R
KSI	3.1.50	50mm Cement or brick paving	m2	150,00	R	R
KSI	3.1.51	Fig.1 Kerbing	m	30,00	R	R
KSI	3.1.52	Fig.2 Kerbing	m	30,00	R	R
KSI	3.1.53	Fig.3 Kerbing	m	30,00	R	R
KSI	3.1.54	Fig.4 Kerbing	m	30,00	R	R
KSI	3.1.55	Fig.5 Kerbing	m	30,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	3.1.56	Fig.6 Kerbing	m	30,00	R	R
KSI	3.1.57	Fig.6 Kerbing - Mountable	m	30,00	R	R
KSI	3.1.58	Fig.7 Kerbing	m	30,00	R	R
KSI	3.1.59	Fig.8 Kerbing	m	30,00	R	R
KSI	3.1.60	Fig.8b Kerbing - Mountable	m	30,00	R	R
KSI	3.1.61	Fig.8c Kerbing - Mountable	m	30,00	R	R
KSI	3.1.62	Fig.12 Kerbing	m	30,00	R	R
KSI	3.1.63	Fig.14 Kerbing	m	30,00	R	R
KSI	3.1.64	Fig.16 Kerbing	m	30,00	R	R
		PREPARATORY WORK TO EXISTING SURFACES				
KSI	3.1.65	Hacking faces of existing concrete columns, beams, etc to receive plaster	m2	10,00	R	R
KSI	3.1.66	Making good defects in existing screeded floors with "an SABS approved self leveling screed"	m2	10,00	R	R
		MAKING GOOD OF FINISHES ETC				
		Making good face brickwork				
		<u>Brickwork in Stock clay bricks (7 Mpa nominal strength) in class II mortar in stretcher bond</u>				
KSI	3.1.67	Ends of half brick walls	m	10,00	R	R
KSI	3.1.68	Ends of one brick walls	m	10,00	R	R
KSI	3.1.69	Faces of walls where half brick cross walls removed	m	10,00	R	R
KSI	3.1.70	Faces of walls where one brick cross walls removed	m	10,00	R	R
		Making good gypsum plasterboard ceilings and timber branderling				
KSI	3.1.71	Ceilings in patches	m2	10,00	R	R
KSI	3.1.72	Ceilings where half brick walls removed	m	10,00	R	R
KSI	3.1.73	Ceilings where one brick walls removed	m	10,00	R	R
		Making good cement screeds				
KSI	3.1.74	Not exceeding 100mm Thick on floors in patches	m2	10,00	R	R
KSI	3.1.75	Floors where half brick walls removed	m	10,00	R	R
KSI	3.1.76	Floors where one brick walls removed	m	10,00	R	R
		Making good internal cement plaster				
KSI	3.1.77	Walls in patches	m2	10,00	R	R
KSI	3.1.78	Concrete ceilings in patches	m2	10,00	R	R
KSI	3.1.79	Walls where half brick walls removed	m	10,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.2				
		EARTHWORKS				
		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.				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Carting away of excavated material				
		Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
		Filling				
		Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
		SITE CLEARANCE ETC				
		Site clearance				
KSI	3.2.1	Stripping average 300mm thick layer of top soil and stockpile on site	m2	150,00	R	R
		EXCAVATION, RISK OF COLLAPSE, FILLING, ETC				
		Excavation in earth not exceeding 2m deep including carting to a stockpile				
KSI	3.2.2	To trenches	m3	30,00	R	R
KSI	3.2.3	To holes	m3	5,00	R	R
KSI	3.2.4	Reduced levels under floors	m3	10,00	R	R
		Excavation in earth exceeding 2m deep but ne. 4m including carting to a stockpile				
KSI	3.2.5	To trenches	m3	15,00	R	R
KSI	3.2.6	To holes	m3	5,00	R	R
KSI	3.2.7	Reduced levels under floors	m3	5,00	R	R
		EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
		Extra over trench and hole excavations in earth for excavation in				
KSI	3.2.8	EO: Soft rock	m3	5,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
KSI	3.2.9	EO: Hard rock	m3	5,00	R		R
		Extra over all excavations for carting away					
KSI	3.2.10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	20,00	R		R
		Risk of collapse to sides of excavation n.e 2m deep					
KSI	3.2.11	To trenches	m2	30,00	R		R
KSI	3.2.12	To holes	m2	10,00	R		R
		Risk of collapse to sides of excavation exceeding 2m but n.e 3.5m deep					
KSI	3.2.13	To trenches	m2	30,00	R		R
KSI	3.2.14	To holes	m2	10,00	R		R
		Keeping excavations free of water					
KSI	3.2.15	Keeping excavations free of water	Item	1,00	R		R
		FILLING ETC					
		Earth filling obtained from excavations and/or prescribed stock on site compacted to 93 % Mod AASHTO density piles					
KSI	3.2.16	Under foundations, floors, steps, pavings, etc	m3	20,00	R		R
		Earth filling supplied (G5) by contractor compacted to 93% Mod AASHTO density					
KSI	3.2.17	Under floors, steps, paving, foundations, manholes etc	m3	30,00	R		R
		Compaction of surfaces					
KSI	3.2.18	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	80,00	R		R
		Prescribed density tests on filling					
KSI	3.2.19	"Modified AASHTO Density" test	No	1,00	R		R
KSI	3.2.20	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	1,00	R		R
		SOIL POISONING					
		Soil insecticide					
KSI	3.2.21	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	40,00	R		R
KSI	3.2.22	To bottoms and sides of trenches etc	m2	40,00	R		R
		Materials & Plant					
KSI	3.2.23	Provision for Sundry Materials & Plant	Prov	1,00	R	2 400,00	R 2 400,00
KSI	3.2.24	Allow for profit & attendance if required	%		R	2 400,00	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.3				
		CONCRETE, FORMWORK AND REINFORCEMENT				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		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 employers agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. PRICES FOR CONCRETE ARE TO INCLUDE FOR ALL TESTS AND CERTIFICATES				
		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 reuse 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" In order to accommodate the custom in some regions to give formwork to sides of beams, isolated beams, etc separately from formwork to the soffits thereof, the items in respect of formwork to beams, isolated beams, etc are given under the headings of "formwork to sides", "formwork to soffits" and "formwork to sides and soffits"				
		UNREINFORCED CONCRETE				
		15 Mpa / 20mm mass concrete				
KSI	3.3.1	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	6,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		20 Mpa/20mm vibrated reinforced concrete				
KSI	3.3.2	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	6,00	R	R
KSI	3.3.3	To columns	m3	6,00	R	R
KSI	3.3.4	To slabs	m3	6,00	R	R
KSI	3.3.5	To beams	m3	6,00	R	R
KSI	3.3.6	Walls	m3	6,00	R	R
		25 Mpa/20mm vibrated reinforced concrete				
KSI	3.3.7	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	6,00	R	R
KSI	3.3.8	To columns	m3	6,00	R	R
KSI	3.3.9	To slabs	m3	6,00	R	R
KSI	3.3.10	To beams	m3	6,00	R	R
KSI	3.3.11	Walls	m3	6,00	R	R
		30MPa/20mm vibrated reinforced concrete				
KSI	3.3.12	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	3,00	R	R
KSI	3.3.13	To columns	m3	3,00	R	R
KSI	3.3.14	To slabs	m3	3,00	R	R
KSI	3.3.15	To beams	m3	3,00	R	R
KSI	3.3.16	Walls	m3	3,00	R	R
		35 Mpa/20mm vibrated reinforced concrete				
KSI	3.3.17	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	1,00	R	R
KSI	3.3.18	To columns	m3	1,00	R	R
KSI	3.3.19	To slabs	m3	1,00	R	R
KSI	3.3.20	To beams	m3	1,00	R	R
KSI	3.3.21	Walls	m3	1,00	R	R
		40 Mpa/20mm vibrated reinforced concrete				
KSI	3.3.22	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	1,00	R	R
KSI	3.3.23	To columns	m3	1,00	R	R
KSI	3.3.24	To slabs	m3	1,00	R	R
KSI	3.3.25	To beams	m3	1,00	R	R
KSI	3.3.26	Walls	m3	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TEST CUBES				
KSI	3.3.27	Making and testing 150 x 150 x 150mm concrete strength test cube, testing and providing test results	No	1,00	R	R
		CONCRETE SUNDRIES				
		Finishing top surfaces of concrete smooth with a wood float				
KSI	3.3.28	Surface beds, slabs,beams, walls, paving etc	m2	30,00	R	R
		Finishing top surfaces of concrete smooth with a steel trowel				
KSI	3.3.29	Surface beds, slabs,beams, walls, paving etc	m2	30,00	R	R
		Finishing top surfaces of concrete smooth with a power float				
KSI	3.3.30	Surface beds, slabs,beams, walls, paving etc	m2	30,00	R	R
		Scabble existing concrete surfaces, wire brush corroded rebar and apply "Prostruct 616" or similar approved wet to dry concrete adhesive				
KSI	3.3.31	Side of existing concrete	m2	10,00	R	R
		Finishing top surfaces of concrete with and including a nonslip brushed concrete finish including wave-like lines parallel				
KSI	3.3.32	To falls	m2	10,00	R	R
		35MPa non-shrink grout				
KSI	3.3.33	Bedding approximately 30mm thick under 300 x 300mm base plate, including chamfered edges all round	m3	1,00	R	R
		Core through 250mm thick Reinforced concrete walls, slab, etc. with a diamond saw or other mechanical means to form including grouting with "Epidermix 395" liquid grouting compound				
KSI	3.3.34	40mm Diameter opening	No	1,00	R	R
KSI	3.3.35	50mm Diameter opening	No	1,00	R	R
KSI	3.3.36	110mm Diameter opening	No	1,00	R	R
KSI	3.3.37	200mm Diameter opening	No	1,00	R	R
KSI	3.3.38	250mm Diameter opening	No	1,00	R	R
KSI	3.3.39	350mm Diameter opening	No	1,00	R	R
KSI	3.3.40	450mm Diameter opening	No	1,00	R	R
		Rough formwork to sides				
KSI	3.3.41	Edges , risers, ends and reveals not exceeding 300 mm high	m	20,00	R	R
KSI	3.3.42	To ground beams	m2	10,00	R	R
		Smooth formwork to sides including supports etc.				
KSI	3.3.43	To beams	m2	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	3.3.44	To columns	m2	10,00	R	R
KSI	3.3.45	To pits	m2	10,00	R	R
KSI	3.3.46	To ramps	m2	10,00	R	R
KSI	3.3.47	To walls	m2	10,00	R	R
		Smooth formwork to soffits				
KSI	3.3.48	Beams propped up exceeding 3,5m and not exceeding 5m high	m2	15,00	R	R
KSI	3.3.49	Slab propped up exceeding 3,5m and not exceeding 5m high	m2	25,00	R	R
		Formwork to sloping top surfaces (pitch exceeding 35 degrees)				
KSI	3.3.50	Concrete humps/bunding, etc not exceeding 300mm wide	m	10,00	R	R
		ISOLATION JOINTS ETC				
		Joint sealants				
		Expansion joints with softboard between vertical concrete surfaces				
KSI	3.3.51	Silicone sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	10,00	R	R
KSI	3.3.52	Polysulphide sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	10,00	R	R
		Saw cut joints				
KSI	3.3.53	50 x 3mm Saw cut joints in top of concrete reamed out to 8mm including 10mm diameter backing cord and 8mm wide x 13mm deep "Dow Corning 813C" silicone sealant or equal approved	m	10,00	R	R
		REINFORCEMENT (PROVISIONAL)				
		Mild tensile steel reinforcement to structural concrete work				
KSI	3.3.54	25mm Diameter bars	ton	0,25	R	R
KSI	3.3.55	20mm Diameter bars	ton	0,25	R	R
KSI	3.3.56	16mm Diameter bars	ton	0,25	R	R
KSI	3.3.57	12mm Diameter bars	ton	0,25	R	R
KSI	3.3.58	10mm Diameter bars	ton	0,25	R	R
KSI	3.3.59	8mm Diameter bars	ton	0,25	R	R
		High tensile steel reinforcement to structural concrete work				
KSI	3.3.60	25mm Diameter bars	ton	0,25	R	R
KSI	3.3.61	20mm Diameter bars	ton	0,25	R	R
KSI	3.3.62	16mm Diameter bars	ton	0,25	R	R
KSI	3.3.63	12mm Diameter bars	ton	0,25	R	R
KSI	3.3.64	10mm Diameter bars	ton	0,25	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.4				
		MASONRY				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		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				
		Hollow walls				
		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				
		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				
		<u>Brickwork of NFX clay bricks (14 MPa nominal compressive strength) in class II mortar in stretcher bond</u>				
KSI	3.4.1	Piers	m3	3,00	R	R
KSI	3.4.2	Half brick walls	m2	40,00	R	R
KSI	3.4.3	One brick walls	m2	60,00	R	R
KSI	3.4.4	Cavity walls - Made up of Two half brick skins	m2	10,00	R	R
KSI	3.4.5	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	10,00	R	R
KSI	3.4.6	280mm Hollow walls of two half brick skins circular on plan with cavities filled in with and including 25MPa/20mm concrete (elsewhere)	m2	10,00	R	R
KSI	3.4.7	Cutting toothings and bonding new brickwork to existing	m	10,00	R	R
		<u>Brickwork in Stock clay bricks (7 Mpa nominal strength) in class II mortar in stretcher bond</u>				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI 3.4.8	Piers	m3	3,00	R	R
KSI 3.4.9	Half brick walls	m2	100,00	R	R
KSI 3.4.10	One brick walls	m2	133,00	R	R
KSI 3.4.11	Cavity walls - Made up of two half brick skins	m2	30,00	R	R
KSI 3.4.12	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	30,00	R	R
KSI 3.4.13	280mm Hollow walls of two half brick skins circular on plan with cavities filled in with and including 25MPa/20mm concrete	m2	30,00	R	R
KSI 3.4.14	Cutting toothings and bonding new brickwork to existing	m	40,00	R	R
	FACE BRICKWORK				
	<u>Provide the prime cost of R 9 600.00 per thousand face bricks delivered to site pointed with flush horizontal and vertical joints</u>				
KSI 3.4.15	Extra over brickwork for face brickwork in foundation walls, ramp, etc	m2	20,00	R	R
KSI 3.4.16	Extra over brickwork for face brickwork	m2	30,00	R	R
KSI 3.4.17	Half brick face brick walls in class II mortar pointed on both sides	m2	20,00	R	R
KSI 3.4.18	Fair cutting and fitting around pipe not exceeding 100mm external diameter	No	5,00	R	R
KSI 3.4.19	Fair cutting and fitting around pipe exceeding 100mm and not exceeding 200mm external diameter	No	5,00	R	R
	Steel bar reinforcement				
KSI 3.4.20	8mm Diameter mild steel bars built in horizontally	ton	1,00	R	R
	Prestressed precast lintels				
KSI 3.4.21	110 x 75mm Lintels in lengths not exceeding 3m	m	20,00	R	R
KSI 3.4.22	110 x 75mm Lintels exceeding 3,0m but not exceeding 4,5m	m	10,00	R	R
	Fabric Reinforcement				
KSI 3.4.23	75mm Galvanised brickforce suitable for half brick walls	m	110,00	R	R
KSI 3.4.24	150mm Galvanised brickforce suitable for one brick walls	m	110,00	R	R
	Galvanised hoop iron cramps, ties, etc				
KSI 3.4.25	30 x 1,6mm Roof tie 1500mm long with one end fixed to timber and other end built into brickwork	No	10,00	R	R
	Bagging of 1:3 cement and sand mixture				
KSI 3.4.26	On brick walls	m2	20,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.5				
		WATERPROOFING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Waterproofing				
		Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
		DAMPPROOFING OF WALLS AND FLOORS				
		One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course				
KSI	3.5.1	In walls	m2	40,00	R	R
		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
KSI	3.5.2	Under surface beds, etc	m2	110,00	R	R
		Three coats paint sealer "plascon wallseal" or equal approved without membrane				
KSI	3.5.3	On parapet walls	m2	40,00	R	R
		Two coats "Brixéal" or equal approved bitumen emulsion waterproof coating				
KSI	3.5.4	On walls	m2	40,00	R	R
		JOINT SEALANTS ETC				
		<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
KSI	3.5.5	In joints between window or door frames and concrete or brickwork	m	10,00	R	R
		WATERPROOFING TO ROOFS ETC				
		TORCH-ON WATERPROOFING				
		<u>4mm Thick "Derbigum SP4" or similar approved waterproofing membrane including laps, turn-ups, turndowns, etc and preparing and priming concrete or screeded surfaces laid in accordance with the manufacturers instruction</u>				
KSI	3.5.6	On flat roofs / floors.	m2	70,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI 3.5.7	On turn-ups and turn-downs exceeding 300mm girth	m2	10,00	R	R
KSI 3.5.8	On sloping roofs	m2	79,00	R	R
KSI 3.5.9	On tops and sides of inverted beams	m2	15,00	R	R
KSI 3.5.10	On bottoms and sides of floor ducts, channels, etc	m2	15,00	R	R
KSI 3.5.11	On bottoms and sides of box gutters	m2	15,00	R	R
KSI 3.5.12	On bottoms and sides of plant boxes	m2	10,00	R	R
KSI 3.5.13	Sealing edges to brickwork or concrete	m	10,00	R	R
KSI 3.5.14	Sealing edges to brickwork or concrete including trowelled mastic bead	m	10,00	R	R
KSI 3.5.15	Additional membrane 300mm girth at internal and external angles	m	10,00	R	R
KSI 3.5.16	Dressing and sealing around pipe not exceeding 200mm external diameter, including additional membrane, gussets, collars, etc	No	5,00	R	R
KSI 3.5.17	On internal surfaces of 300 x 300 x 300mm deep sump, catchpit, etc	No	4,00	R	R
KSI 3.5.18	On concrete flat roofs including all turn-ups and turndowns and sealing edges where required.	m2	30,00	R	R
	PROTECTIVE STONE DRESSING				
	<u>19mm Crushed stone dressing evenly spread with larger stones around outlets</u>				
KSI 3.5.19	25mm Thick on waterproofing to flat roofs	m2	40,00	R	R
	PROTECTIVE ROOFING PAINT				
	<u>Two coats "Silvakote" or similar approved bituminous aluminium paint</u>				
KSI 3.5.20	On waterproofing to roofs	m2	40,00	R	R
KSI 3.5.21	On inside of existing box gutters	m2	40,00	R	R
	PROTECTIVE ROOFING SHEETING				
	<u>Type 40 bituminous fibreglass felt laid loose</u>				
KSI 3.5.22	On waterproofing to roofs	m2	10,00	R	R
	WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC				
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
KSI 3.5.23	6 x 10mm In saw cut joints in floors	m	10,00	R	R
KSI 3.5.24	6 x 10mm In expansion joints in tiled walls etc	m	10,00	R	R
KSI 3.5.25	10 x 15mm In expansion joints in tiled floors etc	m	10,00	R	R
KSI 3.5.26	10 x 15mm In expansion joints in floors including raking out expansion joint filler as necessary	m	10,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.6				
		CARPENTRY & JOINERY				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		<u>Description</u>				
		The term "planted on" shall mean the countersunk screwing of one timber member to another with the heads of screws sunk and pelleted.				
		The term "plugged" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screws sunk and pelleted				
		Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing				
		Descriptions of floors, ceilings, joinery, etc shall be deemed to include for all square cutting				
		Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.				
		Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc				
		DOORS, ETC				
		<u>Semi-solid flush panel doors with commercial veneer both sides suitable for painting and hung to steel, aluminium, timber frames</u>				
KSI	3.6.1	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	10,00	R	R
KSI	3.6.2	Provide the prime cost of R 3 500.00 per Double door in two equal leaves with rebated meeting stiles including hinges.	No	10,00	R	R
		<u>40mm Thick semi-solid flush panel doors with sapele hardwood veneer both sides suitable for varnish</u>				
KSI	3.6.3	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	10,00	R	R
KSI	3.6.4	Provide the prime cost of R 3 500.00 per Double door in two equal leaves with rebated meeting stiles including hinges.	No	10,00	R	R
		<u>44mm Thick solid door suitable for varnish or painting and hung to steel, aluminium or timber frames</u>				
KSI	3.6.5	Provide the prime cost of R 3000.00 per door leaf & hinges for single door openings	No	10,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.7				
		CEILINGS, PARTITIONS & ACCESS FLOORING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		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.				
		Ceilings				
		Unless otherwise described ceilings shall be deemed to be horizontal				
		Bulkheads				
		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. The 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				
		Steel components				
		All steel components for ceilings, partitions, etc are to be galvanized in accordance with SANS 121				
		SUSPENDED CEILINGS				
		9mm "Rhino" gypsum plasterboard with taped and skimmed joints				
KSI	3.7.1	Ceilings installed using propriety framing system all according to manufacturers specifications	m2	50,00	R	R
KSI	3.7.2	Vertical ceilings installed using propriety framing system all according to manufacturers specifications	m2	40,00	R	R
KSI	3.7.3	Horizontal bulkheads installed using propriety framing system all according to manufacturers specifications	m2	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		600 x 1200mm panels on pre painted (pre-coated) suspension system including main and cross tees necessary hangers, grids, etc				
		<u>Provide the prime cost of R 400.00/m2 for suspended ceiling system</u>				
KSI	3.7.4	Ceilings suspended below soffits	m2	40,00	R	R
KSI	3.7.5	Horizontal bulkheads suspended below concrete soffits	m2	40,00	R	R
KSI	3.7.6	Sloping bulkheads suspended below concrete soffits	m2	40,00	R	R
KSI	3.7.7	Extra over ceiling for opening for sprinkler head	No	10,00	R	R
KSI	3.7.8	Extra over ceiling for opening for down lighter	No	10,00	R	R
KSI	3.7.9	Extra over ceiling for 600 x 1 200mm light fitting	No	10,00	R	R
		600mm x 600mm panels on pre painted (pre-coated) exposed tee suspension system				
		<u>Provide the prime cost of R 400.00/m2 for suspended ceiling system</u>				
KSI	3.7.10	Ceilings suspended below soffits	m2	40,00	R	R
KSI	3.7.11	Horizontal bulkheads suspended below concrete soffits	m2	40,00	R	R
KSI	3.7.12	Sloping bulkheads suspended below concrete soffits	m2	40,00	R	R
KSI	3.7.13	Extra over ceiling for opening for sprinkler head	No	10,00	R	R
KSI	3.7.14	Extra over ceiling for opening for down lighter	No	10,00	R	R
KSI	3.7.15	Extra over ceiling for 600 x 600mm light fitting	No	10,00	R	R
		Cornices to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for cornices</u>				
KSI	3.7.16	Pre-painted / coated cornices plugged	m	20,00	R	R
		Shadowline to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for shadowline trim</u>				
KSI	3.7.17	Pre-painted / coated shadowline trim fixed	m	20,00	R	R
		Insulation				
KSI	3.7.18	Isotherm 100mm thick polyester thermal ceiling insulation laid on ceilings (measured nett)	m2	90,00	R	R
		PARTITIONS				
		<u>"76mm wide Rhino-Drywall System " steel stud partitioning with "12mm thick Rhino Wall board" on both sides including skirtings and top track all as per manufacturers specifications</u>				
KSI	3.7.19	Partitioning up to 2 600mm high with bottom and top tracks plugged	m2	40,00	R	R
KSI	3.7.20	Partitioning up to 2 900mm high with bottom and top tracks plugged	m2	50,00	R	R
KSI	3.7.21	Partitioning up to 3 500mm high with bottom and top tracks plugged	m2	40,00	R	R
		DOORS				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		SECTION 3					
		BUILDING WORKS					
		BILL NO.8					
		FLOOR COVERINGS, WALL LININGS, ETC					
		PREAMBLES					
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)					
		SUPPLEMENTARY PREAMBLES					
		Fixing					
		Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc					
		Surface preparation, priming, curing, cleaning etc					
		Descriptions of the items below are deemed to include all necessary preparation, priming, mixing, curing, cleaning etc as prescribed by the manufacturers of the various products					
		FLOOR COVERINGS					
		<u>Provide the prime cost amount of R500.00 per m2 for supply and delivery of vinyl floor finishes laid with approved adhesive on screeds in accordance with manufacturers instructions</u>					
KSI	3.8.1	On floors	m2	70,00	R		R
KSI	3.8.2	On treads and risers of stairs	m2	20,00	R		R
		<u>High traffic epoxy floor paint 2.5 to 3mm thick as per specialists specifications</u>					
KSI	3.8.3	On floors	m2	94,00	R		R
		<u>Provide the prime cost amount of R500.00 per m2 for supply and delivery of carpet tiles laid with approved adhesive in accordance with manufacturers instructions</u>					
KSI	3.8.4	On floors	m2	70,00	R		R
KSI	3.8.5	On treads and risers of stairs	m2	20,00	R		R
		Materials & Plant					
KSI	3.8.6	Provision for Sundry Materials & Plant	Prov	1,00	R	4 800,00	R 4 800,00
KSI	3.8.7	Allow for profit & attendance if required	%		R	4 800,00	R
		Provisional Sum					
KSI	3.8.8	Sundry Floor Coverings Wall Linings etc Works	Sum	1,00	R	4 800,00	R 4 800,00
KSI	3.8.9	Allow for profit & attendance if required	%		R	4 800,00	R
		CARRIED TO SECTION SUMMARY					R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.9				
		IRONMONGERY				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		General				
		Corrosion proof ironmongery shall be provided as far as possible and shall be fitted by professional carpenter				
		Proprietary items				
		Where applicable the manufacturers' names or product catalogue titles are given in sub-heading preceding the items				
		Prices are to be based on the specific products/articles specified. If tenders 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 employer's representative 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				
		LOCKS, ETC				
		<u>Provide the prime cost amount of R750.00 each for cylinder locksets installed complete</u>				
KSI	3.9.1	On single doors	No	20,00	R	R
KSI	3.9.2	On double doors	No	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		HINGES, BOLTS, ETC				
		<u>Hinges</u>				
KSI	3.9.3	Provide the prime cost amount of R350.00 for 100 x 75mm butt hinges (per pair) installed complete	No	50,00	R	R
		PUSH PLATES AND KICKING PLATES				
		<u>Push plates, kick plates etc</u>				
KSI	3.9.4	Provide the prime cost amount of R750.00 each for Push Plates & Kick Plates installed complete	No	20,00	R	R
		DOOR CLOSERS				
		<u>Door Closers</u>				
KSI	3.9.5	Provide the prime cost amount of R3000.00 each for door closers installed complete	No	26,00	R	R
		<u>Panic Bolts etc</u>				
KSI	3.9.6	Provide the prime cost amount of R2500.00 each for panic bolts for single doors installed complete	No	10,00	R	R
KSI	3.9.7	Provide the prime cost amount of R5500.00 each for panic bolts for double doors installed complete	No	3,00	R	R
		HANDLES				
		<u>Handles etc</u>				
KSI	3.9.8	Provide the prime cost amount of R1000.00 each for door handles installed complete	No	30,00	R	R
		CATCHES, CABIN HOOKS, ETC				
		<u>Cabin Hooks etc</u>				
KSI	3.9.9	Provide the prime cost amount of R300.00 each for cabin & coat hooks installed complete	No	20,00	R	R
		BATHROOM FITTINGS				
		<u>Toilet Roll Holder</u>				
KSI	3.9.10	Provide the prime cost amount of R1000.00 each for toilet roll holder plugged to brickwork.	No	11,00	R	R
		<u>Soap Dispenser</u>				
KSI	3.9.11	Provide the prime cost amount of R1000.00 each for soap dispenser plugged to brickwork.	No	10,00	R	R
		<u>Stainless Steel Grab Rail</u>				
KSI	3.9.12	Provide the prime cost amount of R1000.00 each for stainless steel grab rails plugged to brickwork.	No	5,00	R	R
		SUNDRIES				
		"Solid"				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		SECTION 3					
		BUILDING WORKS					
		BILL NO.10					
		METALWORK					
		PREAMBLES					
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)					
		SUPPLEMENTARY PREAMBLES					
		Descriptions of bolts, anchors, etc					
		Descriptions of bolts shall be deemed to include nuts and washers					
		Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete					
		Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described					
		Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres					
		DOOR FRAMES, DOORS, ETC					
		Galvanised pressed steel door frames					
		<u>1,6mm Thick single rebated heavy duty frame for half brick wall complete with butt hinges and including setting up, building in, filling back of frame with cement mortar, etc</u>					
KSI	3.10.1	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	40,00	R		R
KSI	3.10.2	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	20,00	R		R
		<u>1,6mm Thick single rebated heavy duty frame for one brick wall complete with butt hinges and including setting up, building in, filling back of frame with cement mortar, etc</u>					
KSI	3.10.3	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	40,00	R		R
KSI	3.10.4	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	20,00	R		R
		Materials & Plant					
KSI	3.10.5	Provision for Sundry Materials & Plant	Prov	1,00	R	61 800,00	R 61 800,00
KSI	3.10.6	Allow for profit & attendance if required	%		R	61 800,00	R
		Provisional Sum					
KSI	3.10.7	Sundry Metalworks	Sum	1,00	R	61 800,00	R 61 800,00
KSI	3.10.8	Mark up provision on sundry Metalworks	%		R	61 800,00	R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.11				
	PLASTERING				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	Granolithic				
	Method				
	The method to be used shall be either the monolithic method or the bonded method				
	Preparation				
	For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic				
	Mix				
	Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic				
	Panels				
	Granolithic shall be laid in panels not exceeding 14m ² for monolithic finishes, not exceeding 9,5m ² for bonded finishes and not exceeding 6m ² for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width				
	Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints				
	Laying				
	Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
		After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated				
		Curing, seasoning and protection				
		Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying				
		Colour				
		Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour				
		CEMENT SCREED				
		Preparation				
		Screed to be steel trowelled, no dry mix allowed. Screeds to be level and even with high points ground down. Test samples to be provided of screeds. Moisture content to be checked with hydrometer (moisture not to exceed 75%) or tramex meter (moisture not to exceed 60%). Reading to be taken on average of every 30m. Test samples of screed to be provided. Where applicable, screed to falls to floor drain.				
		Mix				
		1:3 Cement/sand screed mix (SABS 471 and 1083 approved) level 1 standard, 25mpa.				
		SCREED				
		Screed to falls				
		<u>Screeds wood floated, on concrete</u>				
KSI	3.11.1	25mm Thick on floors and landings	m2	130,00	R	R
KSI	3.11.2	30mm Thick on floors and landings	m2	40,00	R	R
KSI	3.11.3	30mm Thick on floors on waterproofing membrane	m2	30,00	R	R
KSI	3.11.4	Average 30mm thick on floors with upper surface to falls	m2	10,00	R	R
KSI	3.11.5	Average 30mm thick on floors with upper surface to falls and currents	m2	10,00	R	R
KSI	3.11.6	Average 40mm thick on roofs with upper surface to falls	m2	10,00	R	R
KSI	3.11.7	Average 40mm thick on roofs with upper surface to falls and currents	m2	10,00	R	R
KSI	3.11.8	25mm Thick on treads and risers of stairs including reedings	m2	10,00	R	R
KSI	3.11.9	30mm Thick on treads and risers of stairs	m2	10,00	R	R
KSI	3.11.10	30mm Thick on narrow widths not exceeding 300mm wide	m2	10,00	R	R
KSI	3.11.11	Reedings in finish on ramps	m2	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	3.11.12	50 x 50mm Triangular fillets against walls, kerbs, etc	m	10,00	R	R
		<u>Screeds steel trowelled, on concrete</u>				
KSI	3.11.13	25mm Thick on floors and landings	m2	110,00	R	R
KSI	3.11.14	30mm Thick on floors and landings	m2	40,00	R	R
KSI	3.11.15	30mm Thick on floors on waterproofing membrane	m2	30,00	R	R
KSI	3.11.16	Average 30mm thick on floors with upper surface to falls	m2	10,00	R	R
KSI	3.11.17	Average 30mm thick on floors with upper surface to falls and currents	m2	10,00	R	R
KSI	3.11.18	Average 40mm thick on roofs with upper surface to falls	m2	10,00	R	R
KSI	3.11.19	Average 40mm thick on roofs with upper surface to falls and currents	m2	10,00	R	R
KSI	3.11.20	25mm Thick on treads and risers of stairs including reedings	m2	10,00	R	R
KSI	3.11.21	30mm Thick on treads and risers of stairs	m2	10,00	R	R
KSI	3.11.22	30mm Thick on narrow widths not exceeding 300mm wide	m2	10,00	R	R
KSI	3.11.23	Reedings in finish on ramps	m2	10,00	R	R
KSI	3.11.24	50 x 50mm Triangular fillets against walls, kerbs, etc	m2	10,00	R	R
		GRANOLITHIC				
		<u>Untinted granolithic on concrete</u>				
KSI	3.11.25	25mm Thick on floors and landings	m2	80,00	R	R
KSI	3.11.26	30mm Thick on floors and landings	m2	40,00	R	R
KSI	3.11.27	50mm Thick on floors and landings	m2	30,00	R	R
KSI	3.11.28	Average 30mm thick on floors with upper surface to falls	m2	10,00	R	R
KSI	3.11.29	Average 30mm thick on floors with upper surface to falls and currents	m2	10,00	R	R
KSI	3.11.30	Average 40mm thick on roofs with upper surface to falls	m2	10,00	R	R
KSI	3.11.31	Average 40mm thick on roofs with upper surface to falls and currents	m2	10,00	R	R
KSI	3.11.32	25mm Thick on treads and risers of stairs including reedings	m2	10,00	R	R
KSI	3.11.33	30mm Thick on treads and risers of stairs	m2	10,00	R	R
KSI	3.11.34	30mm Thick on narrow widths not exceeding 300mm wide	m2	10,00	R	R
KSI	3.11.35	Reedings in finish on ramps	m2	10,00	R	R
KSI	3.11.36	Skirtings 100mm high	m	10,00	R	R
KSI	3.11.37	Skirtings 100mm high stepped over treads and risers	m	10,00	R	R
		EXTERNAL PLASTER				
		Class I cement plaster on brickwork				
KSI	3.11.38	On walls	m2	170,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 3				
		BUILDING WORKS				
		BILL NO.12				
		TILING				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Fixing				
		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 adhesives and grouts from the "tal Goldstar" range or equal approved.				
		WALL TILING				
		<u>Provide the prime cost amount of R 500.00 per m2 for ceramic wall tiles fixed with adhesive to:</u>				
KSI	3.12.1	On walls	m2	80,00	R	R
KSI	3.12.2	On narrow widths	m2	20,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain wall tiles fixed with adhesive to:</u>				
KSI	3.12.3	On walls	m2	80,00	R	R
KSI	3.12.4	On narrow widths	m2	20,00	R	R
		FLOOR TILING				
		<u>Provide the prime cost amount of R 500.00 per m2 for ceramic floor tiles fixed with adhesive to:</u>				
KSI	3.12.5	On floors	m2	116,00	R	R
KSI	3.12.6	On narrow widths	m2	20,00	R	R
KSI	3.12.7	On floors landings in patterns	m2	40,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain floor tiles fixed with adhesive to:</u>				
KSI	3.12.8	On floors	m2	110,00	R	R
KSI	3.12.9	On narrow widths	m2	20,00	R	R
KSI	3.12.10	On floors landings in patterns	m2	40,00	R	R

[illegible]

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.13				
	PLUMBING & DRAINAGE				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	Wire gratings				
	Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings				
	Stormwater channels				
	Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site				
	Stainless steel basins, sinks, wash troughs, urinals, etc				
	Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0)				
	Stainless steel for basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8)				
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable				
	Sealing of edges				
	Outer edges of sinks, basins, 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				
	High density polyethylene (HDPE) pipes and fittings				
	Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Copper pipes				
	Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and antisiphon 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				
	Reducing fittings				
	Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained				
	Fixing of pipes				
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level				
	Paper wrapping to pipes				
	Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings				
	Disinfection of water pipework				
	Water pipework is to be disinfected at completion in accordance with SABS 1200L				
	"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 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				
	Laying, backfilling, bedding, etc of pipes				
	Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
	Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
	Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
	Unless otherwise described bedding of rigid pipes shall be Class B bedding				
	General				
	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)				
	Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends				
	Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction and disposal of surplus material on site				
	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)				
	Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes				
	As-built drawings				
	Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract/package the contractor shall hand these drawings to the employer's representative for reproducing onto the originals for handing over to the employer				
	SANITARY FITTINGS				
	NOTE:				
	All fittings butting up against wall or floor finishes or fitting into preformed openings in timber tops are to be sealed with an approved all purpose silicone sealant				
	Prices for sinks described as drop in are to include for preparing the worktop to receive the fitting and securely fixing sinks to worktops using clips provided. The contractor is to provide worktop manufacturers with details of cut outs to ensure that the cut openings are sufficiently accurate to provide proper engagement for these clips				
	Note: Stainless steel for urinals, basins, sinks, etc, shall be type 304 (18/8)				
	304 Stainless Steel				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		<u>Provide the prime cost amount of R 1800.00 each for wash troughs:</u>				
KSI	3.13.1	Single bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	3,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
KSI	3.13.2	Double bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	3,00	R	R
		Sinks				
		<u>Provide the prime cost amount of R 1800.00 each for sinks:</u>				
KSI	3.13.3	Stainless steel single end bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	3,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
KSI	3.13.4	Stainless steel double bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	3,00	R	R
		<u>Wash hand basin</u>				
KSI	3.13.5	Provide the prime cost amount of R 2200.00 each for wall mounted basin	No	3,00	R	R
		<u>Wash hand basin "Paraplegic"</u>				
KSI	3.13.6	Provide the prime cost amount of R 2200.00 each for wall mounted paraplegic basin	No	3,00	R	R
		<u>Urinals</u>				
KSI	3.13.7	Provide the prime cost amount of R 5000.00 each for wall mounted urinals	No	3,00	R	R
		Toilets etc				
KSI	3.13.8	Provide the prime cost amount of R 4000.00 each for toilets installed complete	No	3,00	R	R
KSI	3.13.9	Provide the prime cost amount of R 5000.00 each for paraplegic toilets installed complete		3,00	R	R
		WASTE UNIONS ETC				
		<u>"Cobra Watertech" or equal approved</u>				
KSI	3.13.10	40mm Wash trough waste	No	10,00	R	R
		TRAPS ETC				
		PVC				
KSI	3.13.11	Rubber waste reseal "P" 32x40mm (basin)	No	10,00	R	R
		TAPS, VALVES, ETC				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taps, showers etc				
KSI	3.13.12	Provide the prime cost amount of R 2000.00 each for taps and sink mixers	No	3,00	R	R
KSI	3.13.13	Provide the prime cost amount of R 1500.00 each for shower heads	No	3,00	R	R
KSI	3.13.14	Provide the prime cost amount of R 2000.00 each for shower mixers	No	3,00	R	R
KSI	3.13.15	22mm Brass Non-return valve	No	5,00	R	R
		SANITARY PLUMBING				
		uPVC soil and vent pipes				
KSI	3.13.16	40mm Diameter Pipes	m	20,00	R	R
KSI	3.13.17	50mm Diameter Pipes	m	20,00	R	R
KSI	3.13.18	75mm Diameter Pipes	m	20,00	R	R
KSI	3.13.19	110mm Diameter Pipes	m	20,00	R	R
		Extra over uPVC soil and vent pipes for fittings				
KSI	3.13.20	40mm Bend	No	10,00	R	R
KSI	3.13.21	40mm Inspection bend	No	10,00	R	R
KSI	3.13.22	40mm Junction	No	10,00	R	R
KSI	3.13.23	50mm BSP adaptor	No	10,00	R	R
KSI	3.13.24	50mm Bend	No	10,00	R	R
KSI	3.13.25	50mm Inspection bend	No	10,00	R	R
KSI	3.13.26	50mm Junction	No	10,00	R	R
KSI	3.13.27	50mm Access bend	No	10,00	R	R
KSI	3.13.28	50mm vent valve	No	10,00	R	R
KSI	3.13.29	50mm Two way vent valve	No	10,00	R	R
KSI	3.13.30	50mm Inspection junction	No	10,00	R	R
KSI	3.13.31	75mm Bend	No	10,00	R	R
KSI	3.13.32	75mm Inspection bend	No	10,00	R	R
KSI	3.13.33	75mm Junction	No	10,00	R	R
KSI	3.13.34	75mm Inspection junction	No	10,00	R	R
KSI	3.13.35	75mm Reducing junction	No	10,00	R	R
KSI	3.13.36	75mm Inspection reducing junction	No	10,00	R	R
KSI	3.13.37	75mm Reducer	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	3.13.38	110mm Bend	No	10,00	R	R
KSI	3.13.39	110mm Inspection bend	No	10,00	R	R
KSI	3.13.40	110mm Junction	No	10,00	R	R
KSI	3.13.41	110mm Inspection junction	No	10,00	R	R
KSI	3.13.42	110mm Reducing junction	No	10,00	R	R
KSI	3.13.43	110mm Inspection reducing junction	No	10,00	R	R
KSI	3.13.44	110mm Reducer	No	10,00	R	R
KSI	3.13.45	110mm Pan connector	No	10,00	R	R
KSI	3.13.46	110mm Two way vent valve	No	10,00	R	R
		Testing				
KSI	3.13.47	Testing waste pipe system	Item	1,00	R	R
		WATER SUPPLIES				
		Class 0 copper pipes with brass compression couplings				
KSI	3.13.48	15mm Pipes	m	12,00	R	R
KSI	3.13.49	15mm Pipes chased into brickwork or concrete	m	12,00	R	R
KSI	3.13.50	22mm Pipes	m	12,00	R	R
KSI	3.13.51	22mm Pipes chased into brickwork or concrete	m	12,00	R	R
KSI	3.13.52	28mm Pipes	m	12,00	R	R
KSI	3.13.53	28mm Pipes chased into brickwork or concrete	m	12,00	R	R
KSI	3.13.54	35mm Pipes	m	12,00	R	R
KSI	3.13.55	35mm Pipes chased into brickwork or concrete	m	12,00	R	R
KSI	3.13.56	42mm Pipes	m	12,00	R	R
KSI	3.13.57	54mm Pipes	m	12,00	R	R
KSI	3.13.58	67mm Pipes	m	12,00	R	R
KSI	3.13.59	76mm Pipes	m	12,00	R	R
KSI	3.13.60	108mm Pipes	m	12,00	R	R
		Extra over Class 0 copper pipes for capillary fittings				
KSI	3.13.61	15mm Fittings	No	10,00	R	R
KSI	3.13.62	22mm Fittings	No	10,00	R	R
KSI	3.13.63	28mm Fittings	No	10,00	R	R
KSI	3.13.64	35mm Fittings	No	10,00	R	R
KSI	3.13.65	42mm Fittings	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	3.13.66	54mm Fittings	No	10,00	R	R
KSI	3.13.67	67mm Fittings	No	10,00	R	R
KSI	3.13.68	76mm Fittings	No	10,00	R	R
KSI	3.13.69	108mm Fittings	No	8,00	R	R
		Extra over Class 0 copper pipes for brass compression fittings				
KSI	3.13.70	15mm Fittings	No	10,00	R	R
KSI	3.13.71	22mm Fittings	No	10,00	R	R
KSI	3.13.72	28mm Fittings	No	10,00	R	R
KSI	3.13.73	35mm Fittings	No	10,00	R	R
KSI	3.13.74	42mm Fittings	No	10,00	R	R
KSI	3.13.75	54mm Fittings	No	10,00	R	R
KSI	3.13.76	67mm Fittings	No	10,00	R	R
KSI	3.13.77	76mm Fittings	No	10,00	R	R
KSI	3.13.78	108mm Fittings	No	10,00	R	R
		Class 12.5 "HDPE" Pipes				
KSI	3.13.79	20mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	20,00	R	R
KSI	3.13.80	32mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	20,00	R	R
KSI	3.13.81	40mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	20,00	R	R
KSI	3.13.82	50mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	20,00	R	R
KSI	3.13.83	75mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	20,00	R	R
KSI	3.13.84	90mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	20,00	R	R
KSI	3.13.85	110mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	20,00	R	R
		Extra over "HDPE" for fittings				
KSI	3.13.86	20mm Diameter Straight Coupling	No	5,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	3.13.87	20mm Diameter Reducing Coupling	No	5,00	R	R
KSI	3.13.88	20mm Diameter Equal Tee	No	5,00	R	R
KSI	3.13.89	20mm Diameter Male Adaptor	No	5,00	R	R
KSI	3.13.90	20mm Diameter 90 Degree Elbow	No	5,00	R	R
KSI	3.13.91	40mm Diameter Straight Coupling	No	5,00	R	R
KSI	3.13.92	40mm Diameter Reducing Coupling	No	5,00	R	R
KSI	3.13.93	40mm Diameter Equal Tee	No	5,00	R	R
KSI	3.13.94	40mm Diameter Male Adaptor	No	5,00	R	R
KSI	3.13.95	40mm Diameter 90 Degree Elbow	No	5,00	R	R
KSI	3.13.96	50mm Diameter Straight Coupling	No	5,00	R	R
KSI	3.13.97	50mm Diameter Reducing Coupling	No	5,00	R	R
KSI	3.13.98	50mm Diameter Equal Tee	No	5,00	R	R
KSI	3.13.99	50mm Diameter Male Adaptor	No	5,00	R	R
KSI	3.13.100	50mm Diameter 90 Degree Elbow	No	5,00	R	R
KSI	3.13.101	75mm Diameter Straight Coupling	No	5,00	R	R
KSI	3.13.102	75mm Diameter Reducing Coupling	No	5,00	R	R
KSI	3.13.103	75mm Diameter Equal Tee	No	5,00	R	R
KSI	3.13.104	75mm Diameter Male Adaptor	No	5,00	R	R
KSI	3.13.105	75mm Diameter 90 Degree Elbow	No	5,00	R	R
KSI	3.13.106	90mm Diameter Straight Coupling	No	5,00	R	R
KSI	3.13.107	90mm Diameter Reducing Coupling	No	5,00	R	R
KSI	3.13.108	90mm Diameter Equal Tee	No	5,00	R	R
KSI	3.13.109	90mm Diameter Male Adaptor	No	5,00	R	R
KSI	3.13.110	90mm Diameter 90 Degree Elbow	No	5,00	R	R
KSI	3.13.111	110mm Diameter Straight Coupling	No	5,00	R	R
KSI	3.13.112	110mm Diameter Reducing Coupling	No	5,00	R	R
KSI	3.13.113	110mm Diameter Equal Tee	No	5,00	R	R
KSI	3.13.114	110mm Diameter Male Adaptor	No	5,00	R	R
KSI	3.13.115	110mm Diameter 90 Degree Elbow	No	5,00	R	R
		ELECTRIC WATER HEATERS				
		<u>"Kwikot" or similar approved including all fittings, adaptors, couplings, etc, for connection to the relevant piping.</u>				

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 3				
	BUILDING WORKS				
	BILL NO.14				
	PAINTWORK				
	PREAMBLES				
	The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
	SUPPLEMENTARY PREAMBLES				
	PREPARATORY WORK TO EXISTING WORK				
	Previously painted plastered surfaces				
	Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
	Previously painted wood surfaces				
	Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
	Paintwork to steel surfaces				
	Steel surfaces to be cleaned of all rust, scale and dirt, removed by scraping or with steel wire brush. All oil and grease shall also be removed to obtain a perfectly clean surface. After removing rust from steel, steel is to be painted with a suitable rust converter and primer. Finish with a quality, extremely durable, washable and pure acrylic emulsion enamel paint. For steel door frames, clean down with galvkleen to manufacturers specification before applying primer for galvanised iron. All door frames to be finished with a Water-Based premium quality satin finish non-drip enamel paint.				
	Paintwork to timber surfaces				
	Exposed timber trusses etc. are to be sanded down to smooth finish working in direction of grain. Apply first coat paint thinned 10 parts paint and one part water for penetration. Apply 1 to 2 further coats unthinned (depending on coverage). All to manufacturer specifications. Colour as per architects spec. Timber door surfaces must be dry, clean and free of contaminants. Sand to a smooth surface, free of loose fibres. Remove all dust prior to the application of the basecoat.				
	PAINT SPECIFICATIONS				
	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.				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		NOTE: All paint products utilised must be SABS/SANS approved. All paint products utilised must be suitable for use in commercial/industrial applications. Acceptable products include professional or trade ranges from paint manufacturers. All products utilised must be suited to the application in which it will be used. Paint utilised must perform in accordance with applicable and relevant SANS codes/standards				
		The client reserves the right to reject paint coatings / paint systems that perform poorly / fail due to inferior quality/ that are not SABS approved.				
		PAINTWORK TO NEW WORK				
		"Plascon professional range" or equal approved				
		<u>One coat "Professional Gypsum & Plaster Primer" with an overcoating time of 16 hours and finish with three coats finishing coat (Professional Superior Low Sheen acrylic emulsion paint)</u>				
KSI	3.14.1	On internal walls	m2	200,00	R	R
KSI	3.14.2	On external walls	m2	200,00	R	R
KSI	3.14.3	On ceilings and beams	m2	200,00	R	R
		<u>One coat "Professional Gypsum & Plaster Primer" with an overcoating time of 16 hours and finish with three coats finishing coat (Professional Superior Matt Paint acrylic emulsion paint)</u>				
KSI	3.14.4	On partitions	m2	140,00	R	R
KSI	3.14.5	On ceilings and cornices	m2	110,00	R	R
KSI	3.14.6	On fascias and barge boards	m2	40,00	R	R
		<u>Apply one coat Professional Alkali resistant plaster primer and three coats Paint (Professional Superior Matt Paint)</u>				
KSI	3.14.7	On Rhinolite walls	m2	110,00	R	R
		ON METAL				
		<u>Prime bare metal surfaces with "Superior Quality" zinc chromate and apply one undercoat and two coats paint on steel (Professional high gloss enamel paint)</u>				
KSI	3.14.8	On doors	m2	40,00	R	R
KSI	3.14.9	On door frames	m2	40,00	R	R
KSI	3.14.10	On windows	m2	40,00	R	R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>				
KSI	3.14.11	On palisade fencing	m2	80,00	R	R
KSI	3.14.12	On steel barriers	m2	40,00	R	R
KSI	3.14.13	On balustrades	m2	40,00	R	R
KSI	3.14.14	On gates, grilles, burglar screens etc.	m2	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ON WOOD				
		<u>One coat wood primer, one undercoat & two coats alkyd enamel paint (Professional gloss enamel paint)</u>				
KSI	3.14.15	On boarded panelling	m2	40,00	R	R
KSI	3.14.16	On boarded ceilings	m2	40,00	R	R
KSI	3.14.17	On doors	m2	40,00	R	R
KSI	3.14.18	On door frames	m2	40,00	R	R
KSI	3.14.19	On skirtings	m	40,00	R	R
		<u>Prime bare areas with "Wood Primer" and apply two coats "Timber Varnish" (High gloss wood varnish)</u>				
KSI	3.14.20	On boarded panelling	m2	40,00	R	R
KSI	3.14.21	On boarded ceilings	m2	40,00	R	R
KSI	3.14.22	On doors	m2	40,00	R	R
KSI	3.14.23	On door frames	m2	40,00	R	R
KSI	3.14.24	On skirtings	m	40,00	R	R
		STEEL ROOFS				
		<u>Prepare surface, prime bare areas with primer and apply two coats roof paint (Plascon Nuroof paint or equal approved)</u>				
KSI	3.14.25	On metal roof sheets	m2	190,00	R	R
KSI	3.14.26	To cladding sheets	m2	80,00	R	R
		PREVIOUSLY PAINTED SURFACES				
		"Plascon professional range" or equal approved				
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
KSI	3.14.27	On internal walls	m2	150,00	R	R
KSI	3.14.28	On external walls	m2	150,00	R	R
KSI	3.14.29	On ceilings and beams	m2	110,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Matt Paint)</u>				
KSI	3.14.30	On partitions	m2	110,00	R	R
KSI	3.14.31	On ceilings and cornices	m2	110,00	R	R
KSI	3.14.32	On fascias and barge boards	m2	40,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
KSI	3.14.33	On Rhinolite walls	m2	80,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		METAL SURFACES WITH					
		<u>Prime bare metal surfaces with "Superior Quality" zinc chromate and apply one undercoat and two coats paint on steel (Professional high gloss enamel paint)</u>					
KSI	3.14.34	Windows and door frames	m2	40,00	R		R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>					
KSI	3.14.35	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat ares)	m2	40,00	R		R
		PAINT ON WOOD					
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
KSI	3.14.36	On general surfaces	m2	40,00	R		R
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
KSI	3.14.37	On boarded panelling	m2	40,00	R		R
KSI	3.14.38	On boarded ceilings	m2	40,00	R		R
KSI	3.14.39	On doors	m2	40,00	R		R
KSI	3.14.40	On door frames	m2	40,00	R		R
KSI	3.14.41	On skirtings	m	40,00	R		R
		<u>Prepare and apply two coats "Timber Varnish" (High gloss wood varnish)</u>					
KSI	3.14.42	On boarded panelling	m2	40,00	R		R
KSI	3.14.43	On boarded ceilings	m2	40,00	R		R
KSI	3.14.44	On doors	m2	40,00	R		R
KSI	3.14.45	On door frames	m2	40,00	R		R
KSI	3.14.46	On skirtings	m	40,00	R		R
		STEEL ROOFS					
		<u>Prepare surface, prime bare areas with primer and apply two coats roof paint (Plascon Nuroof paint or equal approved)</u>					
KSI	3.14.47	On metal roof sheets	m2	190,00	R		R
KSI	3.14.48	To cladding sheets	m2	40,00	R		R
		Materials & Plant					
KSI	3.14.49	Provision for Sundry Materials & Plant	Prov	1,00	R	12 000,00	R 12 000,00
KSI	3.14.50	Allow for profit & attendance if required	%		R	12 000,00	R
		Provisional Sum					
KSI	3.14.51	Sundry Paint Works	Sum	1,00	R	12 000,00	R 12 000,00
KSI	3.14.52	Allow for profit & attendance if required	%		R	12 000,00	R

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				CLUSTER 3		
				KSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.1				
		ROADWORKS				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Testing of material and filling				
		Descriptions of earth filling, compaction, etc shall be deemed to include for all necessary testing required in accordance with the SABS 1200 series				
		Site preparation				
KSI	4.1.1	Trim and level terraced area and compact to set levels.	m2	110,00	R	R
		Digging up topsoil				
KSI	4.1.2	Digging up topsoil to an average depth of 150mm and preserving for use as filling	m3	20,00	R	R
		BULK EXCAVATION, FILLING ETC				
KSI	4.1.3	Open face excavation in earth over sloping site	m3	20,00	R	R
		Excavation				
KSI	4.1.4	Excavate in earth not exceeding 1000mm deep	m3	10,00	R	R
		Keeping excavations free of water				
KSI	4.1.5	Keeping excavations free of water	Item	1,00	R	R
		Extra over all excavations for carting away				
KSI	4.1.6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	5,00	R	R
		LAYER WORK				
		<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
KSI	4.1.7	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	5,00	R	R
		<u>Filling supplied by the contractor under parking areas, roadways, etc</u>				
KSI	4.1.8	25mm thick clean, dry river sand layer treated with an approved weed killer at a rate of 50 grams per square metre, spread and levelled to receive paving blocks (elsewhere)	m2	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KSI	4.1.9	G8 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.10	G7 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.11	G7 Gravel-soil material in 150mm layers compacted to 95% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.12	Extra over for G7 stabilised with Portland cement compacted to 95% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.13	Subbase course of G6 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.14	G5 Natural gravel material compacted in 150mm layers to 93% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.15	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.16	Base course of G4 natural gravel material in 150mm layers compacted to 98% Mod AASHTO density	m3	3,00	R	R
KSI	4.1.17	G2 base compacted to 100% Mod AASHTO density	m3	3,00	R	R
		Compaction of surfaces				
KSI	4.1.18	Compaction of ground surfaces under roadworks etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density (Roadbed)	m2	110,00	R	R
		SOIL POISONING				
		<u>Weedkiller (active ingredients metolachlor 102,8 g/l, terbitilasien 248,6 g/l and atrasien 248,6 g/l) or similar approved mixed in the proportion of 100 ml weedkiller to 100l water and applied at a rate of 10 l/m2</u>				
KSI	4.1.19	Under roads, paving etc.	m2	110,00	R	R
		TESTS				
KSI	4.1.20	<u>Prescribed tests to determine degree of compaction or similar approved properties of ground or filling</u>				
KSI	4.1.21	"Modified AASHTO Density" test	No	1,00	R	R
KSI	4.1.22	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	1,00	R	R
KSI	4.1.23	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	1,00	R	R
KSI	4.1.24	Atterberg limits test in accordance with methods A2 to A4 of TMH1	No	1,00	R	R
KSI	4.1.25	UCS test in accordance with method A14 of TMH 1	No	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		PAVING				
		<u>Provide the prime cost of R 500.00 per square metre for paving bricks delivered to site in accordance with SANS 1058, laid to falls on and including 20mm thick sand layer with joints filled in with sand, compacted with a vibration compactor</u>				
KSI	4.1.26	Paving to roadwork and parking to falls	m2	52,00	R	R
KSI	4.1.27	Extra over for curved edges	m	25,00	R	R
		Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing				
		KERBS ETC				
KSI	4.1.28	Fig.1 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.29	Fig.2 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.30	Fig.3 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.31	Fig.4 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.32	Fig.5 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.33	Fig.6 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.34	Fig.6 Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.35	Fig.7 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.36	Fig.8 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.37	Fig.8b Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.38	Fig.8c Kerbing - Mountable with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.39	Fig.12 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.40	Fig.14 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KSI	4.1.41	Fig.16 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
		TRAFFIC SIGNS AND ROAD MARKINGS				
		<u>Prepare and apply one coat reflective road marking paint on bituminous road surfacing, precast concrete paving blocks, etc</u>				
KSI	4.1.42	100mm Wide line	m	10,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.2				
		DRAINAGE				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Laying, backfilling, bedding, etc of pipes				
		Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
		Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
		Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
		Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
		Unless otherwise described bedding of rigid pipes shall be Class B bedding				
		STORM WATER PIPE				
		Heavy duty uPVC storm water pipes				
KSI	4.2.1	110mm Diameter pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	1,00	R	R
		Extra over for uPVC fittings				
KSI	4.2.2	110mm Bend	No	1,00	R	R
KSI	4.2.3	110mm Junction	No	1,00	R	R
KSI	4.2.4	110mm Access junction	No	1,00	R	R
KSI	4.2.5	110mm Rodding Eye	No	1,00	R	R
		uPVC pipe Class 34 HD				
KSI	4.2.6	160mm Pipes laid in and including trenches(trench to be opened and banked at 1;3 grade allowing pipe to be exposed)	m	1,00	R	R
		Extra over for uPVC fittings				
KSI	4.2.7	160mm Bend	No	1,00	R	R
KSI	4.2.8	160mm Junction	No	1,00	R	R

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 4				
		EXTERNAL WORKS				
		BILL NO.3				
		SEWER RETICULATION				
		PREAMBLES				
		The contractor is referred to the relevant Clause in the document Model Preambles for Trades as published by the Association of South African Quantity Surveyors (2008 edition)				
		SUPPLEMENTARY PREAMBLES				
		Laying, backfilling, bedding, etc of pipes				
		Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
		Where no manufacturers' instructions exist, pipes shall be laid in accordance with each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE: Stormwater drainage				
		Pipe trenches, etc shall be backfilled in accordance with SABS 1200DB : Earthworks (Pipe trenches)				
		Pipes shall be bedded in accordance with SABS 1200LB : Bedding (Pipes)				
		Unless otherwise described bedding of rigid pipes shall be Class B bedding				
		Sewer manhole/ inspection chambers				
		<u>Construct 1420mm x 1420mm brick manholes with medium duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>				
KSI	4.3.1	Over 0m and up to 1.0m	No	1,00	R	R
KSI	4.3.2	Over 1.0m and up to 2.0m	No	1,00	R	R
KSI	4.3.3	Over 2m and up to 3m	No	1,00	R	R
KSI	4.3.4	Over 3m and up to 4m	No	1,00	R	R
		<u>Construct 1420mm x 1420mm brick manholes with heavy duty cast iron manhole cover and frame including excavations, backfilling, compaction and cartaway surplus material, spacer, adaptor slabs, benching, junctions, channelling and step irons for the following depths:</u>				
KSI	4.3.5	Over 0m and up to 1.0m	No	1,00	R	R
KSI	4.3.6	Over 1.0m and up to 2.0m	No	1,00	R	R
KSI	4.3.7	Over 2m and up to 3m	No	1,00	R	R
KSI	4.3.8	Over 3m and up to 4m	No	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		CONNECTION OF MAIN SEWER LINE TO BUILDINGS				
		<u>Heavy duty (Class 34) uPVC sewer and drain pipes</u>				
KSI	4.3.9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	1,00	R	R
KSI	4.3.10	110mm Pipes laid in and including trenches not exceeding 1m deep	m	1,00	R	R
		<u>Extra over heavy duty (Class 34) uPVC sewer and drain pipes for fittings</u>				
KSI	4.3.11	110mm Bend	No	1,00	R	R
KSI	4.3.12	110mm Junction	No	1,00	R	R
KSI	4.3.13	110mm Access bend	No	1,00	R	R
KSI	4.3.14	110mm Access junction	No	1,00	R	R
KSI	4.3.15	110mm Rodding eye	No	1,00	R	R
		Class 34 uPVC pipes				
KSI	4.3.16	160mm Pipes laid in and including trenches(trench to be opened and banked at 1;3 grade allowing pipe to be exposed)	m	1,00	R	R
		Extra over items for uPVC fittings				
KSI	4.3.17	160 x 110 mm Diameter Y junction	No	1,00	R	R
KSI	4.3.18	160 x 160 mm Diameter Y junction	No	1,00	R	R
		Channel bends				
KSI	4.3.19	160mm Diameter 45 degree bend	No	1,00	R	R
KSI	4.3.20	160mm Diameter 90 degree bend	No	1,00	R	R
		Sockets				
KSI	4.3.21	160mm Diameter	No	1,00	R	R
		End caps				
KSI	4.3.22	160mm Diameter	No	1,00	R	R
		SUNDRIES				
KSI	4.3.23	Excavation in earth for pipe trenches, chambers, etc	m3	1,00	R	R
KSI	4.3.24	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the contractor	m3	1,00	R	R
KSI	4.3.25	Risk of collapse to sides of trenches	m2	1,00	R	R
KSI	4.3.26	Extra over backfilling to drain trenches, chambers, etc for Class B bedding cradle of compacted selected granular material	m3	1,00	R	R
KSI	4.3.27	25Mpa unreinforced concrete encasing to horizontal pipes laid in trenches N.E 1m deep	m3	1,00	R	R
		WATER				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		ROLLER SHUTTERS & HANGAR DOORS					
KSI	5.9	Provide the sum of R83,000.00 for Roller Shutters & Hangar Doors by an approved sub-contractor	Sum	1,00	R	83 000,00	R 83 000,00
KSI	5.10	Allow for profit & attendance if required	%		R	83 000,00	R
		GENERAL GLAZING					
KSI	5.11	Provide the sum of R41,000.00 for General Glazing by an approved sub-contractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.12	Allow for profit & attendance if required	%		R	41 000,00	R
		ALUMINIUM FACADE CLADDING, SHOPFRONTS, WINDOWS AND DOORS					
KSI	5.13	Provide the sum of R83,000.00 for aluminium façade cladding, shopfronts, window and door installation by an approved sub-contractor	Sum	1,00	R	83 000,00	R 83 000,00
KSI	5.14	Allow for profit & attendance if required	%		R	83 000,00	R
		SIGNAGE					
KSI	5.15	Provide the sum of R41,000.00 for corporate and directional signage by an approved subcontractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.16	Allow for profit & attendance if required	%		R	41 000,00	R
		BLINDS, FURNITURE & FITTINGS					
KSI	5.17	Provide the sum of R62,000.00 for blinds, furniture and fittings by an approved subcontractor	Sum	1,00	R	62 000,00	R 62 000,00
KSI	5.18	Allow for profit & attendance if required	%		R	62 000,00	R
		TENANT TEMPORARY RELOCATION & REINSTATEMENT					
KSI	5.19	Provide the sum of R 41,000.00 for tenant temporary relocation and reinstatement works by an approved subcontractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.20	Allow for profit & attendance if required	%		R	41 000,00	R
		ASBESTOS REMOVAL					
KSI	5.21	Provide the sum of R41,000.00 for the Removal & Safe Disposal of Asbestos by an approved subcontractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.22	Allow for profit & attendance if required	%		R	41 000,00	R
		GUTTERS & RAINWATER DISPOSAL SYSTEMS					
KSI	5.23	Provide the sum of R83,000.00 for Gutters & Rainwater Disposal Systems by an approved subcontractor	Sum	1,00	R	83 000,00	R 83 000,00
KSI	5.24	Allow for profit & attendance if required	%		R	83 000,00	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS					
		GENERAL ELECTRICAL INSTALLATIONS					
KSI	5.25	Provide the sum of R250,000.0 for General Electical Installations by an approved subcontractor	Prov	1,00	R	250 000,00	R 250 000,00
KSI	5.26	Allow for profit & attendance if required	%		R	250 000,00	R
		SUB - STATION INSTALLATIONS					
KSI	5.27	Provide the sum of R41,000.00 for Sub Station Installations by an approved subcontractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.28	Allow for profit & attendance if required	%		R	41 000,00	R
		UPS INSTALLATIONS					
KSI	5.29	Provide the sum of R41,000.00 for UPS Installations by an approved subcontractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.30	Allow for profit & attendance if required	%		R	41 000,00	R
		GENERATOR INSTALLATION					
KSI	5.31	Provide the sum of R41,000.00 for the Generator Installation by an approved sub-contractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.32	Allow for profit & attendance if required	%		R	41 000,00	R
		FIRE DETECTION & FIRE STOPPING INSTALLATION					
KSI	5.33	Provide the sum of R62,000.00 for the Fire Detection & Fire Stopping Installation by an approved sub-contractor	Sum	1,00	R	62 000,00	R 62 000,00
KSI	5.34	Allow for profit & attendance if required	%		R	62 000,00	R
		ACCESS CONTROL					
KSI	5.35	Provide the sum of R20,000.00 for the Access Control System installation by an approved sub-contractor	Sum	1,00	R	20 000,00	R 20 000,00
KSI	5.36	Allow for profit & attendance if required	%		R	20 000,00	R
		CCTV INSTALLATION					
KSI	5.37	Provide the sum of R20,000.00 for CCTV installation by an approved sub-contractor	Sum	1,00	R	20 000,00	R 20 000,00
KSI	5.38	Allow for profit & attendance if required	%		R	20 000,00	R
		INTERNET AND TELECOMMUNICATION INSTALLATION					
KSI	5.39	Provide the sum of R41,000.00 for the internet and telecommunication installation by an approved subcontractor	Sum	1,00	R	41 000,00	R 41 000,00
KSI	5.40	Allow for profit & attendance if required	%		R	41 000,00	R

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				CLUSTER 3		
				KSIA		
ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 6				
		WASTE DISPOSAL , REPURPOSING & RECYCLING				
		BILL NO.1				
		WASTE DISPOSAL , REPURPOSING & RECYCLING				
		GENERAL				
		All waste shall be disposed / recycled / repurposed by permitted disposal / recycling / repurposing facilities and safe disposal /recycling /repurposing certificates shall be provided for all waste removed from site				
		The contractor shall maintain and provide records and manifests of waste removed from the site and corresponding waybills and disposal, repurposing and recycling certificates issued by permitted waste facilities				
		The contractor shall provide copies of permits of disposal / recycling / repurposing facilities for client approval prior to transferring of any waste				
		Hazardous Waste				
		Provision is made for performing the required waste classifications and subsequent disposal of any hazardous waste streams encountered during construction works				
		Recycling / Repurposing Return				
		Provision is made for a monetary return to the client for items that are recycled or repurposed. The return is reflected in these bills of quantities as a negative amount. The negative amount accounts for the monetary return to the client. These bills of quantities have provided a baseline estimate of quantities of materials to be recycled/repurposed and actual quantities will vary based on prevailing site conditions and requirements				
		GENERAL WASTE				
KS1	6.1	General building / building rubble waste to landfill	ton	20,00	R	R
		RECYCLING / REPURPOSING RETURN				
KS1	6.2	Glass	Kg	80,00	(-R	(-R)
KS1	6.3	Plastics	Kg	80,00	(-R	(-R)
KS1	6.4	Steel	Kg	80,00	(-R	(-R)
KS1	6.5	Stainless Steel	Kg	80,00	(-R	(-R)
KS1	6.6	Copper	Kg	80,00	(-R	(-R)
KS1	6.7	Aluminium	Kg	80,00	(-R	(-R)
KS1	6.8	Brass	Kg	80,00	(-R	(-R)
KS1	6.9	Iron	Kg	80,00	(-R	(-R)

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