

	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.	

CAPE TOWN INTERNATIONAL AIRPORT - CTIA

				CLUSTER 2		
				CTIA		
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				
CTI	1.1	General Insurance Requirement (Sureties, guarantees, bonds, workman's compensation etc)	Sum	1,00	R	R
CTI	1.2	Contract works insurance	Sum	1,00	R	R
CTI	1.3	Public liability insurance	Sum	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
CTI	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>					
CTI	1.5	Offices (Accommodates up to 5 staff x 1 off)	month	48,00	R		R
CTI	1.6	Storage sheds (12m x 2.4m x 1 off - Includes Delivery & Removal)	month	48,00	R		R
CTI	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
CTI	1.8	Electric Power & Lighting	month	48,00	R		R
CTI	1.9	Water supplies, electric power and communications	month	48,00	R		R
		<u>Supervision</u>					
		<u>Supervisor/Foreman</u>					
CTI	1.10	Site Supervision for the duration of the contract (x 1 Resource)	month	48,00	R		R
		<u>Safety Management</u>					
CTI	1.11	Provision of full time Construction Site Safety Officer (x 1 Resource)	month	48,00	R		R
CTI	1.12	Compliance with the Occupational Health and Safety Act (OHSA) and Regulations (including the Construction Regulations, 2014)	month	48,00	R		R
CTI	1.13	Site Security	month	48,00	R		R
CTI	1.14	Signage for the site	month	48,00	R		R
CTI	1.15	Other time related obligations	month	48,00	R		R
		VALUE RELATED ITEMS					
CTI	1.16	Contractual requirements	Sum	1,00	R		R
CTI	1.17	Provision for Specialised PPE Requirements	Prov	1,00	R	222 337,48	R 222 337,48
CTI	1.18	Allow for profit & attendance if required	%		R	222 337,48	R
CTI	1.19	Provision for Location and Protection of Existing Underground Services	Prov	1,00	R	133 402,49	R 133 402,49
CTI	1.20	Allow for profit & attendance if required	%		R	133 402,49	R
CTI	1.21	Provision for Compliance with Environmental requirements	Prov	1,00	R	133 402,49	R 133 402,49
CTI	1.22	Allow for profit & attendance if required	%		R	133 402,49	R
CTI	1.23	Provision for ACSA Training and Airports Permits (ACSA Issue)	Prov	1,00	R	444 674,97	R 444 674,97
CTI	1.24	Allow for profit & attendance if required	%		R	444 674,97	R
		Materials & Plant					
CTI	1.25	Provision for Sundry Materials & Plant	Prov	1,00	R	225 730,12	R 225 730,12
CTI	1.26	Allow for profit & attendance if required	%		R	225 730,12	R
		Provisional Sum					
CTI	1.27	Sundry preliminary requirements	Prov	1,00	R	225 730,12	R 225 730,12
CTI	1.28	Allow for profit & attendance if required	%		R	225 730,12	R

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				CLUSTER 2		
				CTIA		
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)				
CTI	2.1	Normal Hours	Man Hours	1710,00	R	R
CTI	2.2	After Hours	Man Hours	440,00	R	R
CTI	2.3	Sundays & Public Holidays	Man Hours	180,00	R	R
		Additional Supervisor / Foreman (Civil Works)				
CTI	2.4	Normal Hours	Man Hours	850,00	R	R
CTI	2.5	After Hours	Man Hours	440,00	R	R
CTI	2.6	Sundays & Public Holidays	Man Hours	180,00	R	R
		Handyman				
CTI	2.7	Normal Hours	Man Hours	2250,00	R	R
CTI	2.8	After Hours	Man Hours	440,00	R	R
CTI	2.9	Sundays & Public Holidays	Man Hours	180,00	R	R
		Brick Layer				
CTI	2.10	Normal Hours	Man Hours	890,00	R	R
CTI	2.11	After Hours	Man Hours	440,00	R	R
CTI	2.12	Sundays & Public Holidays	Man Hours	180,00	R	R
		Carpenter				
CTI	2.13	Normal Hours	Man Hours	1330,00	R	R
CTI	2.14	After Hours	Man Hours	440,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI	2.15	Sundays & Public Holidays	Man Hours	180,00	R	R
		Tiler				
CTI	2.16	Normal Hours	Man Hours	890,00	R	R
CTI	2.17	After Hours	Man Hours	440,00	R	R
CTI	2.18	Sundays & Public Holidays	Man Hours	180,00	R	R
						R -
		Plasterer				
CTI	2.19	Normal Hours	Man Hours	890,00	R	R
CTI	2.20	After Hours	Man Hours	440,00	R	R
CTI	2.21	Sundays & Public Holidays	Man Hours	180,00	R	R
		Painter				
CTI	2.22	Normal Hours	Man Hours	1780,00	R	R
CTI	2.23	After Hours	Man Hours	440,00	R	R
CTI	2.24	Sundays & Public Holidays	Man Hours	180,00	R	R
		Welder				
CTI	2.25	Normal Hours	Man Hours	1780,00	R	R
CTI	2.26	After Hours	Man Hours	440,00	R	R
CTI	2.27	Sundays & Public Holidays	Man Hours	180,00	R	R
		General Assistant				
CTI	2.28	Normal Hours	Man Hours	26680,00	R	R
CTI	2.29	After Hours	Man Hours	440,00	R	R
CTI	2.30	Sundays & Public Holidays	Man Hours	180,00	R	R
		Shutterhand / Formwork Specialist Installer				
CTI	2.31	Normal Hours	Man Hours	890,00	R	R
CTI	2.32	After Hours	Man Hours	440,00	R	R
CTI	2.33	Sundays & Public Holidays	Man Hours	180,00	R	R
		Waterproofing Technician / Specialist Installer				
CTI	2.34	Normal Hours	Man Hours	890,00	R	R
CTI	2.35	After Hours	Man Hours	440,00	R	R
CTI	2.36	Sundays & Public Holidays	Man Hours	180,00	R	R
		Ceiling & Partitions Specialist Installer				

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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				
CTI	3.1.1	Temporary hoarding of galvanised diamond mesh covered with shade cloth 2.7m high and removal later	m	220,00	R	R
CTI	3.1.2	Extra over for galvanised mild steel double gate and frame 1 511 x 2032mm high	No	5,00	R	R
CTI	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	330,00	R	R
CTI	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	5,00	R	R
CTI	3.1.5	Hoarding between concrete floor and ceiling formed of suitable timber framing with 22mm thick shutter board	m2	110,00	R	R
CTI	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
CTI	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.				
CTI	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.				
CTI	3.1.9	Concrete Columns, beams and slabs not exceeding 3m high	m3	70,00	R	R
CTI	3.1.10	Manholes, bases, strip footings etc not exceeding 1.5m deep	m3	70,00	R	R
CTI	3.1.11	Surface beds not exceeding 100mm thick	m3	70,00	R	R
CTI	3.1.12	Surface beds exceeding 100mm thick and not exceeding 150mm thick	m3	70,00	R	R
		Breaking down and removing brickwork including all steel door frames, window frames etc and carting to approved disposal area within the airport.				
CTI	3.1.13	Half brick wall	m2	330,00	R	R
CTI	3.1.14	One brick wall	m2	330,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taking up and removing vinyl floor coverings, tiles, carpets, etc				
CTI	3.1.15	Ceramic / Porcelain / Marble tiles to floor including preparing floor for new floor covering	m2	1110,00	R	R
CTI	3.1.16	Vinyl / plastic / carpet floor covering including preparing floors for new floor coverings	m2	440,00	R	R
		Hacking up and removing off coverings to walls, columns, partitionwalls etc. including preparing surfaces for new finishes				
CTI	3.1.17	Tiles from walls, columns	m2	220,00	R	R
CTI	3.1.18	Wall paper covering from walls, columns etc.	m2	110,00	R	R
		Taking out / off and removing sundry metalwork				
CTI	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	330,00	R	R
		Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)				
CTI	3.1.20	Timber single door and steel frame not exceeding 2,5m ²	No	70,00	R	R
CTI	3.1.21	Timber double door and steel frame exceeding 2,5m ² and not exceeding 5m ²	No	40,00	R	R
CTI	3.1.22	Timber double door and steel frame exceeding 5m ² and not exceeding 7.5m ²	No	40,00	R	R
CTI	3.1.23	Glazed aluminium/steel/timber window not exceeding 2,5m ²	No	70,00	R	R
CTI	3.1.24	Glazed aluminium/steel/timber window exceeding 2,5m ² and not exceeding 5m ²	No	40,00	R	R
CTI	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				
CTI	3.1.26	Suspended ceilings, including suspension grid, hangers, cornices, etc not exceeding 3.0m high	m2	1110,00	R	R
CTI	3.1.27	Drywall partitions not exceeding 3.0m high, including doors, glazed borrowed lights, etc	m	670,00	R	R
CTI	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				
CTI	3.1.29	Skirtings - various widths	m	440,00	R	R
CTI	3.1.30	Timber sills - various widths	m	110,00	R	R
CTI	3.1.31	Timber wall mounted cupboard - Measured by surface area covered on the wall	m2	110,00	R	R
CTI	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
CTI	3.1.33	Timber sink cupboard, including sink and disconnecting & terminating waste pipe - Measured by surface area covered on the floor	m2	70,00	R	R
CTI	3.1.34	Timber/stone counters	m2	110,00	R	R
		Taking out/off and removing sundry metalwork				
CTI	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				
CTI	3.1.36	Not exceeding 100mm thick Screed from floors	m2	1110,00	R	R
CTI	3.1.37	Internal plaster from walls and columns not exceeding 3m high	m2	1110,00	R	R
CTI	3.1.38	Internal plaster from ceilings and beams not exceeding 3m high	m2	1110,00	R	R
CTI	3.1.39	External plaster from walls, columns and beams not exceeding 3m high	m2	1110,00	R	R
		POWER WASH ON EXISTING WALLS				
CTI	3.1.40	Power wash on existing walls (Internal and external walls) as per Employer Agent instruction	m2	1110,00	R	R
		Taking down and removing				
CTI	3.1.41	Mesh fence with steel posts and droppers	m2	2220,00	R	R
CTI	3.1.42	Steel palisade fence with steel posts and droppers	m2	2220,00	R	R
CTI	3.1.43	Concrete palisade fence with concrete posts and droppers	m2	2220,00	R	R
CTI	3.1.44	Security fence with 45 degree barbed wire overhang with posts and droppers	m2	2220,00	R	R
CTI	3.1.45	Half brick boundary or yard wall	m2	560,00	R	R
CTI	3.1.46	One brick boundary or yard wall	m2	560,00	R	R
CTI	3.1.47	Clearvu Fence not exceeding 2,0m high with steel posts	m	560,00	R	R
		Lift and removing pre-cast concrete including bedding, etc				
CTI	3.1.48	60mm Interlocking paving	m2	2050,00	R	R
CTI	3.1.49	80mm Interlocking paving	m2	2050,00	R	R
CTI	3.1.50	50mm Cement or brick paving	m2	2050,00	R	R
CTI	3.1.51	Fig.1 Kerbing	m	330,00	R	R
CTI	3.1.52	Fig.2 Kerbing	m	330,00	R	R
CTI	3.1.53	Fig.3 Kerbing	m	330,00	R	R
CTI	3.1.54	Fig.4 Kerbing	m	330,00	R	R
CTI	3.1.55	Fig.5 Kerbing	m	330,00	R	R
CTI	3.1.56	Fig.6 Kerbing	m	330,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI 3.1.57	Fig.6 Kerbing - Mountable	m	330,00	R	R
CTI 3.1.58	Fig.7 Kerbing	m	330,00	R	R
CTI 3.1.59	Fig.8 Kerbing	m	330,00	R	R
CTI 3.1.60	Fig.8b Kerbing - Mountable	m	330,00	R	R
CTI 3.1.61	Fig.8c Kerbing - Mountable	m	330,00	R	R
CTI 3.1.62	Fig.12 Kerbing	m	330,00	R	R
CTI 3.1.63	Fig.14 Kerbing	m	330,00	R	R
CTI 3.1.64	Fig.16 Kerbing	m	330,00	R	R
	PREPARATORY WORK TO EXISTING SURFACES				
CTI 3.1.65	Hacking faces of existing concrete columns, beams, etc to receive plaster	m2	110,00	R	R
CTI 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>				
CTI 3.1.67	Ends of half brick walls	m	110,00	R	R
CTI 3.1.68	Ends of one brick walls	m	110,00	R	R
CTI 3.1.69	Faces of walls where half brick cross walls removed	m	70,00	R	R
CTI 3.1.70	Faces of walls where one brick cross walls removed	m	70,00	R	R
	Making good gypsum plasterboard ceilings and timber branderling				
CTI 3.1.71	Ceilings in patches	m2	70,00	R	R
CTI 3.1.72	Ceilings where half brick walls removed	m	70,00	R	R
CTI 3.1.73	Ceilings where one brick walls removed	m	70,00	R	R
	Making good cement screeds				
CTI 3.1.74	Not exceeding 100mm Thick on floors in patches	m2	110,00	R	R
CTI 3.1.75	Floors where half brick walls removed	m	70,00	R	R
CTI 3.1.76	Floors where one brick walls removed	m	70,00	R	R
	Making good internal cement plaster				
CTI 3.1.77	Walls in patches	m2	70,00	R	R
CTI 3.1.78	Concrete ceilings in patches	m2	70,00	R	R
CTI 3.1.79	Walls where half brick walls removed	m	70,00	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				
CTI	3.2.1	Stripping average 300mm thick layer of top soil and stockpile on site	m2	1780,00	R	R
		EXCAVATION, RISK OF COLLAPSE, FILLING, ETC				
		Excavation in earth not exceeding 2m deep including carting to a stockpile				
CTI	3.2.2	To trenches	m3	440,00	R	R
CTI	3.2.3	To holes	m3	40,00	R	R
CTI	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				
CTI	3.2.5	To trenches	m3	220,00	R	R
CTI	3.2.6	To holes	m3	40,00	R	R
CTI	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				
CTI	3.2.8	EO: Soft rock	m3	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
CTI	3.2.9	EO: Hard rock	m3	40,00	R		R
		Extra over all excavations for carting away					
CTI	3.2.10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	440,00	R		R
		Risk of collapse to sides of excavation n.e 2m deep					
CTI	3.2.11	To trenches	m2	400,00	R		R
CTI	3.2.12	To holes	m2	100,00	R		R
		Risk of collapse to sides of excavation exceeding 2m but n.e 3.5m deep					
CTI	3.2.13	To trenches	m2	400,00	R		R
CTI	3.2.14	To holes	m2	130,00	R		R
		Keeping excavations free of water					
CTI	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					
CTI	3.2.16	Under foundations, floors, steps, pavings, etc	m3	200,00	R		R
		Earth filling supplied (G5) by contractor compacted to 93% Mod AASHTO density					
CTI	3.2.17	Under floors, steps, paving, foundations, manholes etc	m3	339,00	R		R
		Compaction of surfaces					
CTI	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	890,00	R		R
		Prescribed density tests on filling					
CTI	3.2.19	"Modified AASHTO Density" test	No	1,00	R		R
CTI	3.2.20	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	1,00	R		R
		SOIL POISONING					
		Soil insecticide					
CTI	3.2.21	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	440,00	R		R
CTI	3.2.22	To bottoms and sides of trenches etc	m2	440,00	R		R
		Materials & Plant					
CTI	3.2.23	Provision for Sundry Materials & Plant	Prov	1,00	R	27 925,00	R 27 925,00
CTI	3.2.24	Allow for profit & attendance if required	%		R	27 925,00	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				
CTI	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				
CTI	3.3.2	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	80,00	R	R
CTI	3.3.3	To columns	m3	40,00	R	R
CTI	3.3.4	To slabs	m3	40,00	R	R
CTI	3.3.5	To beams	m3	40,00	R	R
CTI	3.3.6	Walls	m3	40,00	R	R
		25 Mpa/20mm vibrated reinforced concrete				
CTI	3.3.7	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	80,00	R	R
CTI	3.3.8	To columns	m3	40,00	R	R
CTI	3.3.9	To slabs	m3	40,00	R	R
CTI	3.3.10	To beams	m3	40,00	R	R
CTI	3.3.11	Walls	m3	40,00	R	R
		30MPa/20mm vibrated reinforced concrete				
CTI	3.3.12	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	80,00	R	R
CTI	3.3.13	To columns	m3	40,00	R	R
CTI	3.3.14	To slabs	m3	40,00	R	R
CTI	3.3.15	To beams	m3	40,00	R	R
CTI	3.3.16	Walls	m3	40,00	R	R
		35 Mpa/20mm vibrated reinforced concrete				
CTI	3.3.17	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
CTI	3.3.18	To columns	m3	10,00	R	R
CTI	3.3.19	To slabs	m3	10,00	R	R
CTI	3.3.20	To beams	m3	10,00	R	R
CTI	3.3.21	Walls	m3	10,00	R	R
		40 Mpa/20mm vibrated reinforced concrete				
CTI	3.3.22	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	10,00	R	R
CTI	3.3.23	To columns	m3	4,00	R	R
CTI	3.3.24	To slabs	m3	4,00	R	R
CTI	3.3.25	To beams	m3	4,00	R	R
CTI	3.3.26	Walls	m3	4,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TEST CUBES				
CTI	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				
CTI	3.3.28	Surface beds, slabs,beams, walls, paving etc	m2	440,00	R	R
		Finishing top surfaces of concrete smooth with a steel trowel				
CTI	3.3.29	Surface beds, slabs,beams, walls, paving etc	m2	440,00	R	R
		Finishing top surfaces of concrete smooth with a power float				
CTI	3.3.30	Surface beds, slabs,beams, walls, paving etc	m2	440,00	R	R
		Scabble existing concrete surfaces, wire brush corroded rebar and apply "Prostruct 616" or similar approved wet to dry concrete adhesive				
CTI	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				
CTI	3.3.32	To falls	m2	220,00	R	R
		35MPa non-shrink grout				
CTI	3.3.33	Bedding approximately 30mm thick under 300 x 300mm base plate, including chamfered edges all round	m3	4,00	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				
CTI	3.3.34	40mm Diameter opening	No	10,00	R	R
CTI	3.3.35	50mm Diameter opening	No	10,00	R	R
CTI	3.3.36	110mm Diameter opening	No	10,00	R	R
CTI	3.3.37	200mm Diameter opening	No	10,00	R	R
CTI	3.3.38	250mm Diameter opening	No	10,00	R	R
CTI	3.3.39	350mm Diameter opening	No	4,00	R	R
CTI	3.3.40	450mm Diameter opening	No	4,00	R	R
		Rough formwork to sides				
CTI	3.3.41	Edges , risers, ends and reveals not exceeding 300 mm high	m	440,00	R	R
CTI	3.3.42	To ground beams	m2	220,00	R	R
		Smooth formwork to sides including supports etc.				
CTI	3.3.43	To beams	m2	180,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI	3.3.44	To columns	m2	180,00	R	R
CTI	3.3.45	To pits	m2	180,00	R	R
CTI	3.3.46	To ramps	m2	180,00	R	R
CTI	3.3.47	To walls	m2	180,00	R	R
		Smooth formwork to soffits				
CTI	3.3.48	Beams propped up exceeding 3,5m and not exceeding 5m high	m2	220,00	R	R
CTI	3.3.49	Slab propped up exceeding 3,5m and not exceeding 5m high	m2	470,00	R	R
		Formwork to sloping top surfaces (pitch exceeding 35 degrees)				
CTI	3.3.50	Concrete humps/bunding, etc not exceeding 300mm wide	m	90,00	R	R
		ISOLATION JOINTS ETC				
		Joint sealants				
		Expansion joints with softboard between vertical concrete surfaces				
CTI	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
CTI	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				
CTI	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				
CTI	3.3.54	25mm Diameter bars	ton	1,00	R	R
CTI	3.3.55	20mm Diameter bars	ton	4,00	R	R
CTI	3.3.56	16mm Diameter bars	ton	4,00	R	R
CTI	3.3.57	12mm Diameter bars	ton	4,00	R	R
CTI	3.3.58	10mm Diameter bars	ton	5,00	R	R
CTI	3.3.59	8mm Diameter bars	ton	5,00	R	R
		High tensile steel reinforcement to structural concrete work				
CTI	3.3.60	25mm Diameter bars	ton	1,00	R	R
CTI	3.3.61	20mm Diameter bars	ton	2,00	R	R
CTI	3.3.62	16mm Diameter bars	ton	2,00	R	R
CTI	3.3.63	12mm Diameter bars	ton	2,00	R	R
CTI	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>				
CTI	3.4.1	Piers	m3	10,00	R	R
CTI	3.4.2	Half brick walls	m2	440,00	R	R
CTI	3.4.3	One brick walls	m2	670,00	R	R
CTI	3.4.4	Cavity walls - Made up of Two half brick skins	m2	220,00	R	R
CTI	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
CTI	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	180,00	R	R
CTI	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
CTI 3.4.8	Piers	m3	10,00	R	R
CTI 3.4.9	Half brick walls	m2	1110,00	R	R
CTI 3.4.10	One brick walls	m2	1330,00	R	R
CTI 3.4.11	Cavity walls - Made up of two half brick skins	m2	620,00	R	R
CTI 3.4.12	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	620,00	R	R
CTI 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	420,00	R	R
CTI 3.4.14	Cutting toothings and bonding new brickwork to existing	m	440,00	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>				
CTI 3.4.15	Extra over brickwork for face brickwork in foundation walls, ramp, etc	m2	180,00	R	R
CTI 3.4.16	Extra over brickwork for face brickwork	m2	310,00	R	R
CTI 3.4.17	Half brick face brick walls in class II mortar pointed on both sides	m2	270,00	R	R
CTI 3.4.18	Fair cutting and fitting around pipe not exceeding 100mm external diameter	No	40,00	R	R
CTI 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				
CTI 3.4.20	8mm Diameter mild steel bars built in horizontally	ton	1,00	R	R
	Prestressed precast lintels				
CTI 3.4.21	110 x 75mm Lintels in lengths not exceeding 3m	m	220,00	R	R
CTI 3.4.22	110 x 75mm Lintels exceeding 3,0m but not exceeding 4,5m	m	130,00	R	R
	Fabric Reinforcement				
CTI 3.4.23	75mm Galvanised brickforce suitable for half brick walls	m	1330,00	R	R
CTI 3.4.24	150mm Galvanised brickforce suitable for one brick walls	m	1330,00	R	R
	Galvanised hoop iron cramps, ties, etc				
CTI 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				
CTI 3.4.26	On brick walls	m2	270,00	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				
CTI	3.5.1	In walls	m2	440,00	R	R
		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
CTI	3.5.2	Under surface beds, etc	m2	1330,00	R	R
		Three coats paint sealer "plascon wallseal" or equal approved without membrane				
CTI	3.5.3	On parapet walls	m2	440,00	R	R
		Two coats "Brixéal" or equal approved bitumen emulsion waterproof coating				
CTI	3.5.4	On walls	m2	440,00	R	R
		JOINT SEALANTS ETC				
		<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
CTI	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>				
CTI	3.5.6	On flat roofs / floors.	m2	890,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI 3.5.7	On turn-ups and turn-downs exceeding 300mm girth	m2	40,00	R	R
CTI 3.5.8	On sloping roofs	m2	890,00	R	R
CTI 3.5.9	On tops and sides of inverted beams	m2	180,00	R	R
CTI 3.5.10	On bottoms and sides of floor ducts, channels, etc	m2	180,00	R	R
CTI 3.5.11	On bottoms and sides of box gutters	m2	180,00	R	R
CTI 3.5.12	On bottoms and sides of plant boxes	m2	90,00	R	R
CTI 3.5.13	Sealing edges to brickwork or concrete	m	90,00	R	R
CTI 3.5.14	Sealing edges to brickwork or concrete including trowelled mastic bead	m	90,00	R	R
CTI 3.5.15	Additional membrane 300mm girth at internal and external angles	m	90,00	R	R
CTI 3.5.16	Dressing and sealing around pipe not exceeding 200mm external diameter, including additional membrane, gussets, collars, etc	No	40,00	R	R
CTI 3.5.17	On internal surfaces of 300 x 300 x 300mm deep sump, catchpit, etc	No	20,00	R	R
CTI 3.5.18	On concrete flat roofs including all turn-ups and turndowns and sealing edges where required.	m2	440,00	R	R
	PROTECTIVE STONE DRESSING				
	<u>19mm Crushed stone dressing evenly spread with larger stones around outlets</u>				
CTI 3.5.19	25mm Thick on waterproofing to flat roofs	m2	440,00	R	R
	PROTECTIVE ROOFING PAINT				
	<u>Two coats "Silvakote" or similar approved bituminous aluminium paint</u>				
CTI 3.5.20	On waterproofing to roofs	m2	440,00	R	R
CTI 3.5.21	On inside of existing box gutters	m2	440,00	R	R
	PROTECTIVE ROOFING SHEETING				
	<u>Type 40 bituminous fibreglass felt laid loose</u>				
CTI 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>				
CTI 3.5.23	6 x 10mm In saw cut joints in floors	m	90,00	R	R
CTI 3.5.24	6 x 10mm In expansion joints in tiled walls etc	m	90,00	R	R
CTI 3.5.25	10 x 15mm In expansion joints in tiled floors etc	m	90,00	R	R
CTI 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>				
CTI 3.6.1	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	100,00	R	R
CTI 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>				
CTI 3.6.3	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	100,00	R	R
CTI 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	100,00	R	R
	<u>44mm Thick solid door suitable for varnish or painting and hung to steel, aluminium or timber frames</u>				
CTI 3.6.5	Provide the prime cost of R 3000.00 per door leaf & hinges for single door openings	No	120,00	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				
CTI	3.7.1	Ceilings installed using propriety framing system all according to manufacturers specifications	m2	530,00	R	R
CTI	3.7.2	Vertical ceilings installed using propriety framing system all according to manufacturers specifications	m2	440,00	R	R
CTI	3.7.3	Horizontal bulkheads installed using propriety framing system all according to manufacturers specifications	m2	440,00	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>				
CTI	3.7.4	Ceilings suspended below soffits	m2	530,00	R	R
CTI	3.7.5	Horizontal bulkheads suspended below concrete soffits	m2	440,00	R	R
CTI	3.7.6	Sloping bulkheads suspended below concrete soffits	m2	440,00	R	R
CTI	3.7.7	Extra over ceiling for opening for sprinkler head	No	90,00	R	R
CTI	3.7.8	Extra over ceiling for opening for down lighter	No	90,00	R	R
CTI	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>				
CTI	3.7.10	Ceilings suspended below soffits	m2	530,00	R	R
CTI	3.7.11	Horizontal bulkheads suspended below concrete soffits	m2	440,00	R	R
CTI	3.7.12	Sloping bulkheads suspended below concrete soffits	m2	440,00	R	R
CTI	3.7.13	Extra over ceiling for opening for sprinkler head	No	90,00	R	R
CTI	3.7.14	Extra over ceiling for opening for down lighter	No	90,00	R	R
CTI	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>				
CTI	3.7.16	Pre-painted / coated cornices plugged	m	270,00	R	R
		Shadowline to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for shadowline trim</u>				
CTI	3.7.17	Pre-painted / coated shadowline trim fixed	m	270,00	R	R
		Insulation				
CTI	3.7.18	Isotherm 100mm thick polyester thermal ceiling insulation laid on ceilings (measured nett)	m2	890,00	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>				
CTI	3.7.19	Partitioning up to 2 600mm high with bottom and top tracks plugged	m2	620,00	R	R
CTI	3.7.20	Partitioning up to 2 900mm high with bottom and top tracks plugged	m2	530,00	R	R
CTI	3.7.21	Partitioning up to 3 500mm high with bottom and top tracks plugged	m2	440,00	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>					
CTI	3.8.1	On floors	m2	850,00	R		R
CTI	3.8.2	On treads and risers of stairs	m2	269,00	R		R
		<u>High traffic epoxy floor paint 2.5 to 3mm thick as per specialists specifications</u>					
CTI	3.8.3	On floors	m2	880,00	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>					
CTI	3.8.4	On floors	m2	840,00	R		R
CTI	3.8.5	On treads and risers of stairs	m2	269,00	R		R
		Materials & Plant					
CTI	3.8.6	Provision for Sundry Materials & Plant	Prov	1,00	R	55 850,00	R 55 850,00
CTI	3.8.7	Allow for profit & attendance if required	%		R	55 850,00	R
		Provisional Sum					
CTI	3.8.8	Sundry Floor Coverings Wall Linings etc Works	Sum	1,00	R	55 850,00	R 55 850,00
CTI	3.8.9	Allow for profit & attendance if required	%		R	55 850,00	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>				
CTI 3.9.1	On single doors	No	360,00	R	R
CTI 3.9.2	On double doors	No	180,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		HINGES, BOLTS, ETC				
		<u>Hinges</u>				
CTI	3.9.3	Provide the prime cost amount of R350.00 for 100 x 75mm butt hinges (per pair) installed complete	No	668,00	R	R
		PUSH PLATES AND KICKING PLATES				
		<u>Push plates, kick plates etc</u>				
CTI	3.9.4	Provide the prime cost amount of R750.00 each for Push Plates & Kick Plates installed complete	No	180,00	R	R
		DOOR CLOSERS				
		<u>Door Closers</u>				
CTI	3.9.5	Provide the prime cost amount of R3000.00 each for door closers installed complete	No	360,00	R	R
		<u>Panic Bolts etc</u>				
CTI	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
CTI	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>				
CTI	3.9.8	Provide the prime cost amount of R1000.00 each for door handles installed complete	No	310,00	R	R
		CATCHES, CABIN HOOKS, ETC				
		<u>Cabin Hooks etc</u>				
CTI	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>				
CTI	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>				
CTI	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>				
CTI	3.9.12	Provide the prime cost amount of R1000.00 each for stainless steel grab rails plugged to brickwork.	No	40,00	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>					
CTI	3.10.1	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	440,00	R		R
CTI	3.10.2	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	270,00	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>					
CTI	3.10.3	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	440,00	R		R
CTI	3.10.4	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	270,00	R		R
		Materials & Plant					
CTI	3.10.5	Provision for Sundry Materials & Plant	Prov	1,00	R	677 025,00	R 677 025,00
CTI	3.10.6	Allow for profit & attendance if required	%		R	677 025,00	R
		Provisional Sum					
CTI	3.10.7	Sundry Metalworks	Sum	1,00	R	677 025,00	R 677 025,00
CTI	3.10.8	Mark up provision on sundry Metalworks	%		R	677 025,00	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>				
CTI	3.11.1	25mm Thick on floors and landings	m2	1330,00	R	R
CTI	3.11.2	30mm Thick on floors and landings	m2	440,00	R	R
CTI	3.11.3	30mm Thick on floors on waterproofing membrane	m2	360,00	R	R
CTI	3.11.4	Average 30mm thick on floors with upper surface to falls	m2	130,00	R	R
CTI	3.11.5	Average 30mm thick on floors with upper surface to falls and currents	m2	130,00	R	R
CTI	3.11.6	Average 40mm thick on roofs with upper surface to falls	m2	130,00	R	R
CTI	3.11.7	Average 40mm thick on roofs with upper surface to falls and currents	m2	130,00	R	R
CTI	3.11.8	25mm Thick on treads and risers of stairs including reedings	m2	130,00	R	R
CTI	3.11.9	30mm Thick on treads and risers of stairs	m2	130,00	R	R
CTI	3.11.10	30mm Thick on narrow widths not exceeding 300mm wide	m2	130,00	R	R
CTI	3.11.11	Reedings in finish on ramps	m2	130,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI	3.11.12	50 x 50mm Triangular fillets against walls, kerbs, etc	m	130,00	R	R
		<u>Screeds steel trowelled, on concrete</u>				
CTI	3.11.13	25mm Thick on floors and landings	m2	1330,00	R	R
CTI	3.11.14	30mm Thick on floors and landings	m2	440,00	R	R
CTI	3.11.15	30mm Thick on floors on waterproofing membrane	m2	360,00	R	R
CTI	3.11.16	Average 30mm thick on floors with upper surface to falls	m2	130,00	R	R
CTI	3.11.17	Average 30mm thick on floors with upper surface to falls and currents	m2	130,00	R	R
CTI	3.11.18	Average 40mm thick on roofs with upper surface to falls	m2	130,00	R	R
CTI	3.11.19	Average 40mm thick on roofs with upper surface to falls and currents	m2	130,00	R	R
CTI	3.11.20	25mm Thick on treads and risers of stairs including reedings	m2	130,00	R	R
CTI	3.11.21	30mm Thick on treads and risers of stairs	m2	130,00	R	R
CTI	3.11.22	30mm Thick on narrow widths not exceeding 300mm wide	m2	130,00	R	R
CTI	3.11.23	Reedings in finish on ramps	m2	130,00	R	R
CTI	3.11.24	50 x 50mm Triangular fillets against walls, kerbs, etc	m2	130,00	R	R
		GRANOLITHIC				
		<u>Untinted granolithic on concrete</u>				
CTI	3.11.25	25mm Thick on floors and landings	m2	890,00	R	R
CTI	3.11.26	30mm Thick on floors and landings	m2	440,00	R	R
CTI	3.11.27	50mm Thick on floors and landings	m2	360,00	R	R
CTI	3.11.28	Average 30mm thick on floors with upper surface to falls	m2	130,00	R	R
CTI	3.11.29	Average 30mm thick on floors with upper surface to falls and currents	m2	130,00	R	R
CTI	3.11.30	Average 40mm thick on roofs with upper surface to falls	m2	130,00	R	R
CTI	3.11.31	Average 40mm thick on roofs with upper surface to falls and currents	m2	130,00	R	R
CTI	3.11.32	25mm Thick on treads and risers of stairs including reedings	m2	130,00	R	R
CTI	3.11.33	30mm Thick on treads and risers of stairs	m2	130,00	R	R
CTI	3.11.34	30mm Thick on narrow widths not exceeding 300mm wide	m2	130,00	R	R
CTI	3.11.35	Reedings in finish on ramps	m2	130,00	R	R
CTI	3.11.36	Skirtings 100mm high	m	130,00	R	R
CTI	3.11.37	Skirtings 100mm high stepped over treads and risers	m	130,00	R	R
		EXTERNAL PLASTER				
		Class I cement plaster on brickwork				
CTI	3.11.38	On walls	m2	2050,00	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>				
CTI	3.12.1	On walls	m2	890,00	R	R
CTI	3.12.2	On narrow widths	m2	270,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain wall tiles fixed with adhesive to:</u>				
CTI	3.12.3	On walls	m2	890,00	R	R
CTI	3.12.4	On narrow widths	m2	270,00	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>				
CTI	3.12.5	On floors	m2	1336,00	R	R
CTI	3.12.6	On narrow widths	m2	270,00	R	R
CTI	3.12.7	On floors landings in patterns	m2	440,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain floor tiles fixed with adhesive to:</u>				
CTI	3.12.8	On floors	m2	1330,00	R	R
CTI	3.12.9	On narrow widths	m2	270,00	R	R
CTI	3.12.10	On floors landings in patterns	m2	440,00	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>				
CTI 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>				
CTI	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>				
CTI	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>				
CTI	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>				
CTI	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>				
CTI	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>				
CTI	3.13.7	Provide the prime cost amount of R 5000.00 each for wall mounted urinals	No	30,00	R	R
		Toilets etc				
CTI	3.13.8	Provide the prime cost amount of R 4000.00 each for toilets installed complete	No	70,00	R	R
CTI	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>				
CTI	3.13.10	40mm Wash trough waste	No	130,00	R	R
		TRAPS ETC				
		PVC				
CTI	3.13.11	Rubber waste reseal "P" 32x40mm (basin)	No	130,00	R	R
		TAPS, VALVES, ETC				
		Taps, showers etc				
CTI	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
CTI	3.13.13	Provide the prime cost amount of R 1500.00 each for shower heads	No	30,00	R	R
CTI	3.13.14	Provide the prime cost amount of R 2000.00 each for shower mixers	No	30,00	R	R
CTI	3.13.15	22mm Brass Non-return valve	No	40,00	R	R
		SANITARY PLUMBING				
		uPVC soil and vent pipes				
CTI	3.13.16	40mm Diameter Pipes	m	200,00	R	R
CTI	3.13.17	50mm Diameter Pipes	m	200,00	R	R
CTI	3.13.18	75mm Diameter Pipes	m	200,00	R	R
CTI	3.13.19	110mm Diameter Pipes	m	200,00	R	R
		Extra over uPVC soil and vent pipes for fittings				
CTI	3.13.20	40mm Bend	No	70,00	R	R
CTI	3.13.21	40mm Inspection bend	No	70,00	R	R
CTI	3.13.22	40mm Junction	No	70,00	R	R
CTI	3.13.23	50mm BSP adaptor	No	70,00	R	R
CTI	3.13.24	50mm Bend	No	70,00	R	R
CTI	3.13.25	50mm Inspection bend	No	70,00	R	R
CTI	3.13.26	50mm Junction	No	70,00	R	R
CTI	3.13.27	50mm Access bend	No	70,00	R	R
CTI	3.13.28	50mm vent valve	No	70,00	R	R
CTI	3.13.29	50mm Two way vent valve	No	70,00	R	R
CTI	3.13.30	50mm Inspection junction	No	70,00	R	R
CTI	3.13.31	75mm Bend	No	70,00	R	R
CTI	3.13.32	75mm Inspection bend	No	70,00	R	R
CTI	3.13.33	75mm Junction	No	70,00	R	R
CTI	3.13.34	75mm Inspection junction	No	70,00	R	R
CTI	3.13.35	75mm Reducing junction	No	70,00	R	R
CTI	3.13.36	75mm Inspection reducing junction	No	70,00	R	R
CTI	3.13.37	75mm Reducer	No	70,00	R	R
CTI	3.13.38	110mm Bend	No	70,00	R	R
CTI	3.13.39	110mm Inspection bend	No	70,00	R	R
CTI	3.13.40	110mm Junction	No	70,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI	3.13.41	110mm Inspection junction	No	70,00	R	R
CTI	3.13.42	110mm Reducing junction	No	70,00	R	R
CTI	3.13.43	110mm Inspection reducing junction	No	70,00	R	R
CTI	3.13.44	110mm Reducer	No	70,00	R	R
CTI	3.13.45	110mm Pan connector	No	70,00	R	R
CTI	3.13.46	110mm Two way vent valve	No	70,00	R	R
		Testing				
CTI	3.13.47	Testing waste pipe system	Item	1,00	R	R
		WATER SUPPLIES				
		Class 0 copper pipes with brass compression couplings				
CTI	3.13.48	15mm Pipes	m	200,00	R	R
CTI	3.13.49	15mm Pipes chased into brickwork or concrete	m	200,00	R	R
CTI	3.13.50	22mm Pipes	m	200,00	R	R
CTI	3.13.51	22mm Pipes chased into brickwork or concrete	m	200,00	R	R
CTI	3.13.52	28mm Pipes	m	200,00	R	R
CTI	3.13.53	28mm Pipes chased into brickwork or concrete	m	200,00	R	R
CTI	3.13.54	35mm Pipes	m	200,00	R	R
CTI	3.13.55	35mm Pipes chased into brickwork or concrete	m	200,00	R	R
CTI	3.13.56	42mm Pipes	m	200,00	R	R
CTI	3.13.57	54mm Pipes	m	200,00	R	R
CTI	3.13.58	67mm Pipes	m	200,00	R	R
CTI	3.13.59	76mm Pipes	m	200,00	R	R
CTI	3.13.60	108mm Pipes	m	200,00	R	R
		Extra over Class 0 copper pipes for capillary fittings				
CTI	3.13.61	15mm Fittings	No	70,00	R	R
CTI	3.13.62	22mm Fittings	No	70,00	R	R
CTI	3.13.63	28mm Fittings	No	70,00	R	R
CTI	3.13.64	35mm Fittings	No	70,00	R	R
CTI	3.13.65	42mm Fittings	No	70,00	R	R
CTI	3.13.66	54mm Fittings	No	70,00	R	R
CTI	3.13.67	67mm Fittings	No	70,00	R	R
CTI	3.13.68	76mm Fittings	No	70,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI	3.13.69	108mm Fittings	No	70,00	R	R
		Extra over Class 0 copper pipes for brass compression fittings				
CTI	3.13.70	15mm Fittings	No	70,00	R	R
CTI	3.13.71	22mm Fittings	No	70,00	R	R
CTI	3.13.72	28mm Fittings	No	70,00	R	R
CTI	3.13.73	35mm Fittings	No	70,00	R	R
CTI	3.13.74	42mm Fittings	No	70,00	R	R
CTI	3.13.75	54mm Fittings	No	70,00	R	R
CTI	3.13.76	67mm Fittings	No	70,00	R	R
CTI	3.13.77	76mm Fittings	No	70,00	R	R
CTI	3.13.78	108mm Fittings	No	69,00	R	R
		Class 12.5 "HDPE" Pipes				
CTI	3.13.79	20mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	200,00	R	R
CTI	3.13.80	32mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	200,00	R	R
CTI	3.13.81	40mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	200,00	R	R
CTI	3.13.82	50mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	200,00	R	R
CTI	3.13.83	75mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	200,00	R	R
CTI	3.13.84	90mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	200,00	R	R
CTI	3.13.85	110mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	200,00	R	R
		Extra over "HDPE" for fittings				
CTI	3.13.86	20mm Diameter Straight Coupling	No	70,00	R	R
CTI	3.13.87	20mm Diameter Reducing Coupling	No	70,00	R	R
CTI	3.13.88	20mm Diameter Equal Tee	No	70,00	R	R
CTI	3.13.89	20mm Diameter Male Adaptor	No	70,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI	3.13.90	20mm Diameter 90 Degree Elbow	No	70,00	R	R
CTI	3.13.91	40mm Diameter Straight Coupling	No	70,00	R	R
CTI	3.13.92	40mm Diameter Reducing Coupling	No	70,00	R	R
CTI	3.13.93	40mm Diameter Equal Tee	No	70,00	R	R
CTI	3.13.94	40mm Diameter Male Adaptor	No	70,00	R	R
CTI	3.13.95	40mm Diameter 90 Degree Elbow	No	70,00	R	R
CTI	3.13.96	50mm Diameter Straight Coupling	No	70,00	R	R
CTI	3.13.97	50mm Diameter Reducing Coupling	No	70,00	R	R
CTI	3.13.98	50mm Diameter Equal Tee	No	70,00	R	R
CTI	3.13.99	50mm Diameter Male Adaptor	No	70,00	R	R
CTI	3.13.100	50mm Diameter 90 Degree Elbow	No	70,00	R	R
CTI	3.13.101	75mm Diameter Straight Coupling	No	70,00	R	R
CTI	3.13.102	75mm Diameter Reducing Coupling	No	70,00	R	R
CTI	3.13.103	75mm Diameter Equal Tee	No	70,00	R	R
CTI	3.13.104	75mm Diameter Male Adaptor	No	70,00	R	R
CTI	3.13.105	75mm Diameter 90 Degree Elbow	No	70,00	R	R
CTI	3.13.106	90mm Diameter Straight Coupling	No	70,00	R	R
CTI	3.13.107	90mm Diameter Reducing Coupling	No	70,00	R	R
CTI	3.13.108	90mm Diameter Equal Tee	No	70,00	R	R
CTI	3.13.109	90mm Diameter Male Adaptor	No	70,00	R	R
CTI	3.13.110	90mm Diameter 90 Degree Elbow	No	70,00	R	R
CTI	3.13.111	110mm Diameter Straight Coupling	No	70,00	R	R
CTI	3.13.112	110mm Diameter Reducing Coupling	No	69,00	R	R
CTI	3.13.113	110mm Diameter Equal Tee	No	65,00	R	R
CTI	3.13.114	110mm Diameter Male Adaptor	No	65,00	R	R
CTI	3.13.115	110mm Diameter 90 Degree Elbow	No	65,00	R	R
		ELECTRIC WATER HEATERS				
		<u>"Kwikot" or similar approved including all fittings, adaptors, couplings, etc, for connection to the relevant piping.</u>				
CTI	3.13.116	Provide the prime cost amount of R 3000.00 each for undercounter geysers	No	25,00	R	R
CTI	3.13.117	Provide the prime cost amount of R 7000.00 each for 100 litre geysers	No	25,00	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>				
CTI	3.14.1	On internal walls	m2	2000,00	R	R
CTI	3.14.2	On external walls	m2	2000,00	R	R
CTI	3.14.3	On ceilings and beams	m2	1780,00	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>				
CTI	3.14.4	On partitions	m2	1330,00	R	R
CTI	3.14.5	On ceilings and cornices	m2	1330,00	R	R
CTI	3.14.6	On fascias and barge boards	m2	440,00	R	R
		<u>Apply one coat Professional Alkali resistant plaster primer and three coats Paint (Professional Superior Matt Paint)</u>				
CTI	3.14.7	On Rhinolite walls	m2	1330,00	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>				
CTI	3.14.8	On doors	m2	440,00	R	R
CTI	3.14.9	On door frames	m2	440,00	R	R
CTI	3.14.10	On windows	m2	440,00	R	R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>				
CTI	3.14.11	On palisade fencing	m2	890,00	R	R
CTI	3.14.12	On steel barriers	m2	440,00	R	R
CTI	3.14.13	On balustrades	m2	440,00	R	R
CTI	3.14.14	On gates, grilles, burglar screens etc.	m2	440,00	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>				
CTI	3.14.15	On boarded panelling	m2	440,00	R	R
CTI	3.14.16	On boarded ceilings	m2	440,00	R	R
CTI	3.14.17	On doors	m2	440,00	R	R
CTI	3.14.18	On door frames	m2	440,00	R	R
CTI	3.14.19	On skirtings	m	440,00	R	R
		<u>Prime bare areas with "Wood Primer" and apply two coats "Timber Varnish" (High gloss wood varnish)</u>				
CTI	3.14.20	On boarded panelling	m2	440,00	R	R
CTI	3.14.21	On boarded ceilings	m2	440,00	R	R
CTI	3.14.22	On doors	m2	440,00	R	R
CTI	3.14.23	On door frames	m2	440,00	R	R
CTI	3.14.24	On skirtings	m	440,00	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>				
CTI	3.14.25	On metal roof sheets	m2	2500,00	R	R
CTI	3.14.26	To cladding sheets	m2	890,00	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>				
CTI	3.14.27	On internal walls	m2	1780,00	R	R
CTI	3.14.28	On external walls	m2	1780,00	R	R
CTI	3.14.29	On ceilings and beams	m2	1330,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Matt Paint)</u>				
CTI	3.14.30	On partitions	m2	1330,00	R	R
CTI	3.14.31	On ceilings and cornices	m2	1330,00	R	R
CTI	3.14.32	On fascias and barge boards	m2	440,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
CTI	3.14.33	On Rhinolite walls	m2	1000,00	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>					
CTI	3.14.34	Windows and door frames	m2	440,00	R		R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>					
CTI	3.14.35	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat ares)	m2	500,00	R		R
		PAINT ON WOOD					
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
CTI	3.14.36	On general surfaces	m2	440,00	R		R
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
CTI	3.14.37	On boarded panelling	m2	440,00	R		R
CTI	3.14.38	On boarded ceilings	m2	440,00	R		R
CTI	3.14.39	On doors	m2	440,00	R		R
CTI	3.14.40	On door frames	m2	440,00	R		R
CTI	3.14.41	On skirtings	m	440,00	R		R
		<u>Prepare and apply two coats "Timber Varnish" (High gloss wood varnish)</u>					
CTI	3.14.42	On boarded panelling	m2	440,00	R		R
CTI	3.14.43	On boarded ceilings	m2	440,00	R		R
CTI	3.14.44	On doors	m2	440,00	R		R
CTI	3.14.45	On door frames	m2	440,00	R		R
CTI	3.14.46	On skirtings	m	440,00	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>					
CTI	3.14.47	On metal roof sheets	m2	3500,00	R		R
CTI	3.14.48	To cladding sheets	m2	450,00	R		R
		Materials & Plant					
CTI	3.14.49	Provision for Sundry Materials & Plant	Prov	1,00	R	139 625,00	R 139 625,00
CTI	3.14.50	Allow for profit & attendance if required	%		R	139 625,00	R
		Provisional Sum					
CTI	3.14.51	Sundry Paint Works	Sum	1,00	R	139 625,00	R 139 625,00
CTI	3.14.52	Allow for profit & attendance if required	%		R	139 625,00	R

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				CLUSTER 2		
				CTIA		
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				
CTI	4.1.1	Trim and level terraced area and compact to set levels.	m2	1330,00	R	R
		Digging up topsoil				
CTI	4.1.2	Digging up topsoil to an average depth of 150mm and preserving for use as filling	m3	270,00	R	R
		BULK EXCAVATION, FILLING ETC				
CTI	4.1.3	Open face excavation in earth over sloping site	m3	180,00	R	R
		Excavation				
CTI	4.1.4	Excavate in earth not exceeding 1000mm deep	m3	90,00	R	R
		Keeping excavations free of water				
CTI	4.1.5	Keeping excavations free of water	Item	1,00	R	R
		Extra over all excavations for carting away				
CTI	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>				
CTI	4.1.7	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	70,00	R	R
		<u>Filling supplied by the contractor under parking areas, roadways, etc</u>				
CTI	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	440,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
CTI	4.1.9	G8 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.10	G7 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.11	G7 Gravel-soil material in 150mm layers compacted to 95% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.12	Extra over for G7 stabilised with Portland cement compacted to 95% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.13	Subbase course of G6 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.14	G5 Natural gravel material compacted in 150mm layers to 93% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.15	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.16	Base course of G4 natural gravel material in 150mm layers compacted to 98% Mod AASHTO density	m3	40,00	R	R
CTI	4.1.17	G2 base compacted to 100% Mod AASHTO density	m3	40,00	R	R
		Compaction of surfaces				
CTI	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	1330,00	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>				
CTI	4.1.19	Under roads, paving etc.	m2	1330,00	R	R
		TESTS				
CTI	4.1.20	<u>Prescribed tests to determine degree of compaction or similar approved properties of ground or filling</u>				
CTI	4.1.21	"Modified AASHTO Density" test	No	1,00	R	R
CTI	4.1.22	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	1,00	R	R
CTI	4.1.23	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	1,00	R	R
CTI	4.1.24	Atterberg limits test in accordance with methods A2 to A4 of TMH1	No	1,00	R	R
CTI	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>				
CTI	4.1.26	Paving to roadwork and parking to falls	m2	1404,00	R	R
CTI	4.1.27	Extra over for curved edges	m	440,00	R	R
		Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing				
		KERBS ETC				
CTI	4.1.28	Fig.1 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	4.1.29	Fig.2 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	4.1.30	Fig.3 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	4.1.31	Fig.4 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	4.1.32	Fig.5 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	4.1.33	Fig.6 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	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
CTI	4.1.35	Fig.7 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	4.1.36	Fig.8 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	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
CTI	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
CTI	4.1.39	Fig.12 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	4.1.40	Fig.14 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	40,00	R	R
CTI	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>				
CTI	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				
CTI	4.2.1	110mm Diameter pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	370,00	R	R
		Extra over for uPVC fittings				
CTI	4.2.2	110mm Bend	No	50,00	R	R
CTI	4.2.3	110mm Junction	No	50,00	R	R
CTI	4.2.4	110mm Access junction	No	50,00	R	R
CTI	4.2.5	110mm Rodding Eye	No	50,00	R	R
		uPVC pipe Class 34 HD				
CTI	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	290,00	R	R
		Extra over for uPVC fittings				
CTI	4.2.7	160mm Bend	No	50,00	R	R
CTI	4.2.8	160mm Junction	No	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
CTI	4.2.9	160mm Access junction	No	50,00	R		R
CTI	4.2.10	160mm Rodding Eye	No	50,00	R		R
CTI	4.2.11	Catch pits and junction boxes	No	48,00	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>					
CTI	4.2.12	Over 0m and up to 1.0m	No	14,00	R		R
CTI	4.2.13	Over 1.0m and up to 2.0m	No	13,00	R		R
CTI	4.2.14	Over 2m and up to 3m	No	12,00	R		R
CTI	4.2.15	Over 3m and up to 4m	No	11,00	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>					
CTI	4.2.16	Over 0m and up to 1.0m	No	1,00	R		R
CTI	4.2.17	Over 1.0m and up to 2.0m	No	1,00	R		R
CTI	4.2.18	Over 2m and up to 3m	No	1,00	R		R
CTI	4.2.19	Over 3m and up to 4m	No	1,00	R		R
		Testing Drainage System					
CTI	4.2.20	Testing soil drainage pipe system	Item	1,00	R		R
		<u>Materials & Plant</u>					
CTI	4.2.21	Provision for Sundry Materials & Plant	Prov	1,00	R	77 925,00	R 77 925,00
CTI	4.2.22	Allow for profit & attendance if required	%		R	77 925,00	R
		Provisional Sum					
CTI	4.2.23	Sundry Drainage Works	Sum	1,00	R	77 925,00	R 77 925,00
CTI	4.2.24	Allow for profit & attendance if required	%		R	77 925,00	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>				
CTI	4.3.1	Over 0m and up to 1.0m	No	14,00	R	R
CTI	4.3.2	Over 1.0m and up to 2.0m	No	13,00	R	R
CTI	4.3.3	Over 2m and up to 3m	No	12,00	R	R
CTI	4.3.4	Over 3m and up to 4m	No	11,00	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>				
CTI	4.3.5	Over 0m and up to 1.0m	No	1,00	R	R
CTI	4.3.6	Over 1.0m and up to 2.0m	No	1,00	R	R
CTI	4.3.7	Over 2m and up to 3m	No	1,00	R	R
CTI	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>				
CTI	4.3.9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	200,00	R	R
CTI	4.3.10	110mm Pipes laid in and including trenches not exceeding 1m deep	m	100,00	R	R
		<u>Extra over heavy duty (Class 34) uPVC sewer and drain pipes for fittings</u>				
CTI	4.3.11	110mm Bend	No	20,00	R	R
CTI	4.3.12	110mm Junction	No	20,00	R	R
CTI	4.3.13	110mm Access bend	No	20,00	R	R
CTI	4.3.14	110mm Access junction	No	20,00	R	R
CTI	4.3.15	110mm Rodding eye	No	20,00	R	R
		Class 34 uPVC pipes				
CTI	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	290,00	R	R
		Extra over items for uPVC fittings				
CTI	4.3.17	160 x 110 mm Diameter Y junction	No	20,00	R	R
CTI	4.3.18	160 x 160 mm Diameter Y junction	No	20,00	R	R
		Channel bends				
CTI	4.3.19	160mm Diameter 45 degree bend	No	20,00	R	R
CTI	4.3.20	160mm Diameter 90 degree bend	No	20,00	R	R
		Sockets				
CTI	4.3.21	160mm Diameter	No	20,00	R	R
		End caps				
CTI	4.3.22	160mm Diameter	No	20,00	R	R
		SUNDRIES				
CTI	4.3.23	Excavation in earth for pipe trenches, chambers, etc	m3	40,00	R	R
CTI	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
CTI	4.3.25	Risk of collapse to sides of trenches	m2	130,00	R	R
CTI	4.3.26	Extra over backfilling to drain trenches, chambers, etc for Class B bedding cradle of compacted selected granular material	m3	23,00	R	R
CTI	4.3.27	25Mpa unreinforced concrete encasing to horizontal pipes laid in trenches N.E 1m deep	m3	30,00	R	R
		WATER				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ROLLER SHUTTERS & HANGAR DOORS				
CTI	5.9	Provide the sum of R971,000.00 for Roller Shutters & Hangar Doors by an approved sub-contractor	Sum	1,00	R 971 000,00	R 971 000,00
CTI	5.10	Allow for profit & attendance if required	%		R 971 000,00	R
		GENERAL GLAZING				
CTI	5.11	Provide the sum of R485,000.00 for General Glazing by an approved sub-contractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.12	Allow for profit & attendance if required	%		R 485 000,00	R
		ALUMINIUM FACADE CLADDING, SHOPFRONTS, WINDOWS AND DOORS				
CTI	5.13	Provide the sum of R971,000.00 for aluminium façade cladding, shopfronts, window and door installation by an approved sub-contractor	Sum	1,00	R 971 000,00	R 971 000,00
CTI	5.14	Allow for profit & attendance if required	%		R 971 000,00	R
		SIGNAGE				
CTI	5.15	Provide the sum of R485,000.00 for corporate and directional signage by an approved subcontractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.16	Allow for profit & attendance if required	%		R 485 000,00	R
		BLINDS, FURNITURE & FITTINGS				
CTI	5.17	Provide the sum of R727,000.00 for blinds, furniture and fittings by an approved subcontractor	Sum	1,00	R 727 000,00	R 727 000,00
CTI	5.18	Allow for profit & attendance if required	%		R 727 000,00	R
		TENANT TEMPORARY RELOCATION & REINSTATEMENT				
CTI	5.19	Provide the sum of R 485,000.00 for tenant temporary relocation and reinstatement works by an approved subcontractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.20	Allow for profit & attendance if required	%		R 485 000,00	R
		ASBESTOS REMOVAL				
CTI	5.21	Provide the sum of R485,000.00 for the Removal & Safe Disposal of Asbestos by an approved subcontractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.22	Allow for profit & attendance if required	%		R 485 000,00	R
		GUTTERS & RAINWATER DISPOSAL SYSTEMS				
CTI	5.23	Provide the sum of R971,000.00 for Gutters & Rainwater Disposal Systems by an approved subcontractor	Sum	1,00	R 971 000,00	R 971 000,00
CTI	5.24	Allow for profit & attendance if required	%		R 971 000,00	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS				
		GENERAL ELECTRICAL INSTALLATIONS				
CTI	5.25	Provide the sum of R2,913,000.0 for General Electical Installations by an approved subcontractor	Prov	1,00	R 2 913 000,00	R 2 913 000,00
CTI	5.26	Allow for profit & attendance if required	%		R 2 913 000,00	R
		SUB - STATION INSTALLATIONS				
CTI	5.27	Provide the sum of R485,000.00 for Sub Station Installations by an approved subcontractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.28	Allow for profit & attendance if required	%		R 485 000,00	R
		UPS INSTALLATIONS				
CTI	5.29	Provide the sum of R485,000.00 for UPS Installations by an approved subcontractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.30	Allow for profit & attendance if required	%		R 485 000,00	R
		GENERATOR INSTALLATION				
CTI	5.31	Provide the sum of R485,000.00 for the Generator Installation by an approved sub-contractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.32	Allow for profit & attendance if required	%		R 485 000,00	R
		FIRE DETECTION & FIRE STOPPING INSTALLATION				
CTI	5.33	Provide the sum of R727,000.00 for the Fire Detection & Fire Stopping Installation by an approved sub-contractor	Sum	1,00	R 727 000,00	R 727 000,00
CTI	5.34	Allow for profit & attendance if required	%		R 727 000,00	R
		ACCESS CONTROL				
CTI	5.35	Provide the sum of R242,000.00 for the Access Control System installation by an approved sub-contractor	Sum	1,00	R 242 000,00	R 242 000,00
CTI	5.36	Allow for profit & attendance if required	%		R 242 000,00	R
		CCTV INSTALLATION				
CTI	5.37	Provide the sum of R242,000.00 for CCTV installation by an approved sub-contractor	Sum	1,00	R 242 000,00	R 242 000,00
CTI	5.38	Allow for profit & attendance if required	%		R 242 000,00	R
		INTERNET AND TELECOMMUNICATION INSTALLATION				
CTI	5.39	Provide the sum of R485,000.00 for the internet and telecommunication installation by an approved subcontractor	Sum	1,00	R 485 000,00	R 485 000,00
CTI	5.40	Allow for profit & attendance if required	%		R 485 000,00	R

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				CLUSTER 2		
				CTIA		
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				
CTI	6.1	General building / building rubble waste to landfill	ton	270,00	R	R
		RECYCLING / REPURPOSING RETURN				
CTI	6.2	Glass	Kg	890,00	(-R	(-R)
CTI	6.3	Plastics	Kg	890,00	(-R	(-R)
CTI	6.4	Steel	Kg	890,00	(-R	(-R)
CTI	6.5	Stainless Steel	Kg	890,00	(-R	(-R)
CTI	6.6	Copper	Kg	890,00	(-R	(-R)
CTI	6.7	Aluminium	Kg	890,00	(-R	(-R)
CTI	6.8	Brass	Kg	890,00	(-R	(-R)
CTI	6.9	Iron	Kg	890,00	(-R	(-R)

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KIMBERLY AIRPORT - KIM

				CLUSTER 2		
				KIM		
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				
KIM	1.1	General Insurance Requirement (Sureties, guarantees, bonds, workman's compensation etc)	Sum	1,00	R	R
KIM	1.2	Contract works insurance	Sum	1,00	R	R
KIM	1.3	Public liability insurance	Sum	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
KIM	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>					
KIM	1.5	Offices (Accommodates up to 5 staff x 1 off)	month	24,00	R		R
KIM	1.6	Storage sheds (12m x 2.4m x 1 off - Includes Delivery & Removal)	month	24,00	R		R
KIM	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
KIM	1.8	Electric Power & Lighting	month	24,00	R		R
KIM	1.9	Water supplies, electric power and communications	month	24,00	R		R
		Supervision					
		<u>Supervisor/Foreman</u>					
KIM	1.10	Site Supervision for the duration of the contract (x 1 Resource)	month	24,00	R		R
		<u>Safety Management</u>					
KIM	1.11	Provision of full time Construction Site Safety Officer (x 1 Resource)	month	24,00	R		R
KIM	1.12	Compliance with the Occupational Health and Safety Act (OHSA) and Regulations (including the Construction Regulations, 2014)	month	24,00	R		R
KIM	1.13	Site Security	month	24,00	R		R
KIM	1.14	Signage for the site	month	24,00	R		R
KIM	1.15	Other time related obligations	month	24,00	R		R
		VALUE RELATED ITEMS					
KIM	1.16	Contractual requirements	Sum	1,00	R		R
KIM	1.17	Provision for Specialised PPE Requirements	Prov	1,00	R	61 894,88	R 61 894,88
KIM	1.18	Allow for profit & attendance if required	%		R	61 894,88	R
KIM	1.19	Provision for Location and Protection of Existing Underground Services	Prov	1,00	R	37 136,93	R 37 136,93
KIM	1.20	Allow for profit & attendance if required	%		R	37 136,93	R
KIM	1.21	Provision for Compliance with Environmental requirements	Prov	1,00	R	37 136,93	R 37 136,93
KIM	1.22	Allow for profit & attendance if required	%		R	37 136,93	R
KIM	1.23	Provision for ACSA Training and Airports Permits (ACSA Issue)	Prov	1,00	R	123 789,76	R 123 789,76
KIM	1.24	Allow for profit & attendance if required	%		R	123 789,76	R
		Materials & Plant					
KIM	1.25	Provision for Sundry Materials & Plant	Prov	1,00	R	38 723,60	R 38 723,60
KIM	1.26	Allow for profit & attendance if required	%		R	38 723,60	R
		Provisional Sum					
KIM	1.27	Sundry preliminary requirements	Prov	1,00	R	38 723,60	R 38 723,60
KIM	1.28	Allow for profit & attendance if required	%		R	38 723,60	R

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				CLUSTER 2		
				KIM		
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)				
KIM	2.1	Normal Hours	Man Hours	400,00	R	R
KIM	2.2	After Hours	Man Hours	120,00	R	R
KIM	2.3	Sundays & Public Holidays	Man Hours	50,00	R	R
		Additional Supervisor / Foreman (Civil Works)				
KIM	2.4	Normal Hours	Man Hours	200,00	R	R
KIM	2.5	After Hours	Man Hours	120,00	R	R
KIM	2.6	Sundays & Public Holidays	Man Hours	50,00	R	R
		Handyman				
KIM	2.7	Normal Hours	Man Hours	300,00	R	R
KIM	2.8	After Hours	Man Hours	120,00	R	R
KIM	2.9	Sundays & Public Holidays	Man Hours	50,00	R	R
		Brick Layer				
KIM	2.10	Normal Hours	Man Hours	200,00	R	R
KIM	2.11	After Hours	Man Hours	120,00	R	R
KIM	2.12	Sundays & Public Holidays	Man Hours	50,00	R	R
		Carpenter				
KIM	2.13	Normal Hours	Man Hours	300,00	R	R
KIM	2.14	After Hours	Man Hours	120,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM	2.15	Sundays & Public Holidays	Man Hours	50,00	R	R
		Tiler				
KIM	2.16	Normal Hours	Man Hours	200,00	R	R
KIM	2.17	After Hours	Man Hours	120,00	R	R
KIM	2.18	Sundays & Public Holidays	Man Hours	50,00	R	R
						R -
		Plasterer				
KIM	2.19	Normal Hours	Man Hours	200,00	R	R
KIM	2.20	After Hours	Man Hours	120,00	R	R
KIM	2.21	Sundays & Public Holidays	Man Hours	50,00	R	R
		Painter				
KIM	2.22	Normal Hours	Man Hours	300,00	R	R
KIM	2.23	After Hours	Man Hours	120,00	R	R
KIM	2.24	Sundays & Public Holidays	Man Hours	50,00	R	R
		Welder				
KIM	2.25	Normal Hours	Man Hours	300,00	R	R
KIM	2.26	After Hours	Man Hours	120,00	R	R
KIM	2.27	Sundays & Public Holidays	Man Hours	50,00	R	R
		General Assistant				
KIM	2.28	Normal Hours	Man Hours	1000,00	R	R
KIM	2.29	After Hours	Man Hours	120,00	R	R
KIM	2.30	Sundays & Public Holidays	Man Hours	50,00	R	R
		Shutterhand / Formwork Specialist Installer				
KIM	2.31	Normal Hours	Man Hours	150,00	R	R
KIM	2.32	After Hours	Man Hours	120,00	R	R
KIM	2.33	Sundays & Public Holidays	Man Hours	50,00	R	R
		Waterproofing Technician / Specialist Installer				
KIM	2.34	Normal Hours	Man Hours	150,00	R	R
KIM	2.35	After Hours	Man Hours	120,00	R	R
KIM	2.36	Sundays & Public Holidays	Man Hours	50,00	R	R
		Ceiling & Partitions Specialist Installer				
KIM	2.37	Normal Hours	Man Hours	150,00	R	R
KIM	2.38	After Hours	Man Hours	120,00	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				
KIM	3.1.1	Temporary hoarding of galvanised diamond mesh covered with shade cloth 2.7m high and removal later	m	60,00	R	R
KIM	3.1.2	Extra over for galvanised mild steel double gate and frame 1 511 x 2032mm high	No	2,00	R	R
KIM	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
KIM	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
KIM	3.1.5	Hoarding between concrete floor and ceiling formed of suitable timber framing with 22mm thick shutter board	m2	30,00	R	R
KIM	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
KIM	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.				
KIM	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.				
KIM	3.1.9	Concrete Columns, beams and slabs not exceeding 3m high	m3	20,00	R	R
KIM	3.1.10	Manholes, bases, strip footings etc not exceeding 1.5m deep	m3	20,00	R	R
KIM	3.1.11	Surface beds not exceeding 100mm thick	m3	20,00	R	R
KIM	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.				
KIM	3.1.13	Half brick wall	m2	90,00	R	R
KIM	3.1.14	One brick wall	m2	90,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taking up and removing vinyl floor coverings, tiles, carpets, etc				
KIM	3.1.15	Ceramic / Porcelain / Marble tiles to floor including preparing floor for new floor covering	m2	310,00	R	R
KIM	3.1.16	Vinyl / plastic / carpet floor covering including preparing floors for new floor coverings	m2	120,00	R	R
		Hacking up and removing off coverings to walls, columns, partitionwalls etc. including preparing surfaces for new finishes				
KIM	3.1.17	Tiles from walls, columns	m2	60,00	R	R
KIM	3.1.18	Wall paper covering from walls, columns etc.	m2	30,00	R	R
		Taking out / off and removing sundry metalwork				
KIM	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)				
KIM	3.1.20	Timber single door and steel frame not exceeding 2,5m ²	No	20,00	R	R
KIM	3.1.21	Timber double door and steel frame exceeding 2,5m ² and not exceeding 5m ²	No	10,00	R	R
KIM	3.1.22	Timber double door and steel frame exceeding 5m ² and not exceeding 7.5m ²	No	10,00	R	R
KIM	3.1.23	Glazed aluminium/steel/timber window not exceeding 2,5m ²	No	20,00	R	R
KIM	3.1.24	Glazed aluminium/steel/timber window exceeding 2,5m ² and not exceeding 5m ²	No	10,00	R	R
KIM	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				
KIM	3.1.26	Suspended ceilings, including suspension grid, hangers, cornices, etc not exceeding 3.0m high	m2	310,00	R	R
KIM	3.1.27	Drywall partitions not exceeding 3.0m high, including doors, glazed borrowed lights, etc	m	190,00	R	R
KIM	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				
KIM	3.1.29	Skirtings - various widths	m	120,00	R	R
KIM	3.1.30	Timber sills - various widths	m	30,00	R	R
KIM	3.1.31	Timber wall mounted cupboard - Measured by surface area covered on the wall	m2	30,00	R	R
KIM	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
KIM	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
KIM	3.1.34	Timber/stone counters	m2	30,00	R	R
		Taking out/off and removing sundry metalwork				
KIM	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				
KIM	3.1.36	Not exceeding 100mm thick Screed from floors	m2	310,00	R	R
KIM	3.1.37	Internal plaster from walls and columns not exceeding 3m high	m2	310,00	R	R
KIM	3.1.38	Internal plaster from ceilings and beams not exceeding 3m high	m2	310,00	R	R
KIM	3.1.39	External plaster from walls, columns and beams not exceeding 3m high	m2	310,00	R	R
		POWER WASH ON EXISTING WALLS				
KIM	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				
KIM	3.1.41	Mesh fence with steel posts and droppers	m2	620,00	R	R
KIM	3.1.42	Steel palisade fence with steel posts and droppers	m2	620,00	R	R
KIM	3.1.43	Concrete palisade fence with concrete posts and droppers	m2	620,00	R	R
KIM	3.1.44	Security fence with 45 degree barbed wire overhang with posts and droppers	m2	620,00	R	R
KIM	3.1.45	Half brick boundary or yard wall	m2	150,00	R	R
KIM	3.1.46	One brick boundary or yard wall	m2	150,00	R	R
KIM	3.1.47	Clearvu Fence not exceeding 2,0m high with steel posts	m	150,00	R	R
		Lift and removing pre-cast concrete including bedding, etc				
KIM	3.1.48	60mm Interlocking paving	m2	570,00	R	R
KIM	3.1.49	80mm Interlocking paving	m2	570,00	R	R
KIM	3.1.50	50mm Cement or brick paving	m2	570,00	R	R
KIM	3.1.51	Fig.1 Kerbing	m	90,00	R	R
KIM	3.1.52	Fig.2 Kerbing	m	90,00	R	R
KIM	3.1.53	Fig.3 Kerbing	m	90,00	R	R
KIM	3.1.54	Fig.4 Kerbing	m	90,00	R	R
KIM	3.1.55	Fig.5 Kerbing	m	90,00	R	R
KIM	3.1.56	Fig.6 Kerbing	m	90,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM	3.1.57	Fig.6 Kerbing - Mountable	m	90,00	R	R
KIM	3.1.58	Fig.7 Kerbing	m	90,00	R	R
KIM	3.1.59	Fig.8 Kerbing	m	90,00	R	R
KIM	3.1.60	Fig.8b Kerbing - Mountable	m	90,00	R	R
KIM	3.1.61	Fig.8c Kerbing - Mountable	m	90,00	R	R
KIM	3.1.62	Fig.12 Kerbing	m	90,00	R	R
KIM	3.1.63	Fig.14 Kerbing	m	90,00	R	R
KIM	3.1.64	Fig.16 Kerbing	m	90,00	R	R
		PREPARATORY WORK TO EXISTING SURFACES				
KIM	3.1.65	Hacking faces of existing concrete columns, beams, etc to receive plaster	m2	30,00	R	R
KIM	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>				
KIM	3.1.67	Ends of half brick walls	m	30,00	R	R
KIM	3.1.68	Ends of one brick walls	m	30,00	R	R
KIM	3.1.69	Faces of walls where half brick cross walls removed	m	20,00	R	R
KIM	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				
KIM	3.1.71	Ceilings in patches	m2	20,00	R	R
KIM	3.1.72	Ceilings where half brick walls removed	m	20,00	R	R
KIM	3.1.73	Ceilings where one brick walls removed	m	20,00	R	R
		Making good cement screeds				
KIM	3.1.74	Not exceeding 100mm Thick on floors in patches	m2	30,00	R	R
KIM	3.1.75	Floors where half brick walls removed	m	20,00	R	R
KIM	3.1.76	Floors where one brick walls removed	m	20,00	R	R
		Making good internal cement plaster				
KIM	3.1.77	Walls in patches	m2	20,00	R	R
KIM	3.1.78	Concrete ceilings in patches	m2	20,00	R	R
KIM	3.1.79	Walls where half brick walls removed	m	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				
KIM	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				
KIM	3.2.2	To trenches	m3	120,00	R	R
KIM	3.2.3	To holes	m3	10,00	R	R
KIM	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				
KIM	3.2.5	To trenches	m3	60,00	R	R
KIM	3.2.6	To holes	m3	10,00	R	R
KIM	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				
KIM	3.2.8	EO: Soft rock	m3	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
KIM	3.2.9	EO: Hard rock	m3	10,00	R		R
		Extra over all excavations for carting away					
KIM	3.2.10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	120,00	R		R
		Risk of collapse to sides of excavation n.e 2m deep					
KIM	3.2.11	To trenches	m2	110,00	R		R
KIM	3.2.12	To holes	m2	20,00	R		R
		Risk of collapse to sides of excavation exceeding 2m but n.e 3.5m deep					
KIM	3.2.13	To trenches	m2	110,00	R		R
KIM	3.2.14	To holes	m2	40,00	R		R
		Keeping excavations free of water					
KIM	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					
KIM	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					
KIM	3.2.17	Under floors, steps, paving, foundations, manholes etc	m3	94,00	R		R
		Compaction of surfaces					
KIM	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					
KIM	3.2.19	"Modified AASHTO Density" test	No	1,00	R		R
KIM	3.2.20	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	1,00	R		R
		SOIL POISONING					
		Soil insecticide					
KIM	3.2.21	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	120,00	R		R
KIM	3.2.22	To bottoms and sides of trenches etc	m2	120,00	R		R
		Materials & Plant					
KIM	3.2.23	Provision for Sundry Materials & Plant	Prov	1,00	R	7 775,00	R 7 775,00
KIM	3.2.24	Allow for profit & attendance if required	%		R	7 775,00	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				
KIM	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				
KIM	3.3.2	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
KIM	3.3.3	To columns	m3	10,00	R	R
KIM	3.3.4	To slabs	m3	10,00	R	R
KIM	3.3.5	To beams	m3	10,00	R	R
KIM	3.3.6	Walls	m3	10,00	R	R
		25 Mpa/20mm vibrated reinforced concrete				
KIM	3.3.7	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
KIM	3.3.8	To columns	m3	10,00	R	R
KIM	3.3.9	To slabs	m3	10,00	R	R
KIM	3.3.10	To beams	m3	10,00	R	R
KIM	3.3.11	Walls	m3	10,00	R	R
		30MPa/20mm vibrated reinforced concrete				
KIM	3.3.12	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	20,00	R	R
KIM	3.3.13	To columns	m3	10,00	R	R
KIM	3.3.14	To slabs	m3	10,00	R	R
KIM	3.3.15	To beams	m3	10,00	R	R
KIM	3.3.16	Walls	m3	10,00	R	R
		35 Mpa/20mm vibrated reinforced concrete				
KIM	3.3.17	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	10,00	R	R
KIM	3.3.18	To columns	m3	3,00	R	R
KIM	3.3.19	To slabs	m3	3,00	R	R
KIM	3.3.20	To beams	m3	3,00	R	R
KIM	3.3.21	Walls	m3	3,00	R	R
		40 Mpa/20mm vibrated reinforced concrete				
KIM	3.3.22	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	3,00	R	R
KIM	3.3.23	To columns	m3	1,00	R	R
KIM	3.3.24	To slabs	m3	1,00	R	R
KIM	3.3.25	To beams	m3	1,00	R	R
KIM	3.3.26	Walls	m3	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TEST CUBES				
KIM	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				
KIM	3.3.28	Surface beds, slabs,beams, walls, paving etc	m2	120,00	R	R
		Finishing top surfaces of concrete smooth with a steel trowel				
KIM	3.3.29	Surface beds, slabs,beams, walls, paving etc	m2	120,00	R	R
		Finishing top surfaces of concrete smooth with a power float				
KIM	3.3.30	Surface beds, slabs,beams, walls, paving etc	m2	120,00	R	R
		Scabble existing concrete surfaces, wire brush corroded rebar and apply "Prostruct 616" or similar approved wet to dry concrete adhesive				
KIM	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				
KIM	3.3.32	To falls	m2	60,00	R	R
		35MPa non-shrink grout				
KIM	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				
KIM	3.3.34	40mm Diameter opening	No	3,00	R	R
KIM	3.3.35	50mm Diameter opening	No	3,00	R	R
KIM	3.3.36	110mm Diameter opening	No	3,00	R	R
KIM	3.3.37	200mm Diameter opening	No	3,00	R	R
KIM	3.3.38	250mm Diameter opening	No	3,00	R	R
KIM	3.3.39	350mm Diameter opening	No	1,00	R	R
KIM	3.3.40	450mm Diameter opening	No	1,00	R	R
		Rough formwork to sides				
KIM	3.3.41	Edges , risers, ends and reveals not exceeding 300 mm high	m	120,00	R	R
KIM	3.3.42	To ground beams	m2	60,00	R	R
		Smooth formwork to sides including supports etc.				
KIM	3.3.43	To beams	m2	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM	3.3.44	To columns	m2	50,00	R	R
KIM	3.3.45	To pits	m2	50,00	R	R
KIM	3.3.46	To ramps	m2	50,00	R	R
KIM	3.3.47	To walls	m2	50,00	R	R
		Smooth formwork to soffits				
KIM	3.3.48	Beams propped up exceeding 3,5m and not exceeding 5m high	m2	60,00	R	R
KIM	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)				
KIM	3.3.50	Concrete humps/bunding, etc not exceeding 300mm wide	m	20,00	R	R
		ISOLATION JOINTS ETC				
		Joint sealants				
		Expansion joints with softboard between vertical concrete surfaces				
KIM	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
KIM	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				
KIM	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				
KIM	3.3.54	25mm Diameter bars	ton	1,00	R	R
KIM	3.3.55	20mm Diameter bars	ton	1,00	R	R
KIM	3.3.56	16mm Diameter bars	ton	1,00	R	R
KIM	3.3.57	12mm Diameter bars	ton	1,00	R	R
KIM	3.3.58	10mm Diameter bars	ton	1,00	R	R
KIM	3.3.59	8mm Diameter bars	ton	1,00	R	R
		High tensile steel reinforcement to structural concrete work				
KIM	3.3.60	25mm Diameter bars	ton	1,00	R	R
KIM	3.3.61	20mm Diameter bars	ton	1,00	R	R
KIM	3.3.62	16mm Diameter bars	ton	1,00	R	R
KIM	3.3.63	12mm Diameter bars	ton	1,00	R	R
KIM	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>				
KIM	3.4.1	Piers	m3	3,00	R	R
KIM	3.4.2	Half brick walls	m2	120,00	R	R
KIM	3.4.3	One brick walls	m2	190,00	R	R
KIM	3.4.4	Cavity walls - Made up of Two half brick skins	m2	60,00	R	R
KIM	3.4.5	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	60,00	R	R
KIM	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	50,00	R	R
KIM	3.4.7	Cutting toothings and bonding new brickwork to existing	m	20,00	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
KIM	3.4.8	Piers	m3	3,00	R	R
KIM	3.4.9	Half brick walls	m2	310,00	R	R
KIM	3.4.10	One brick walls	m2	370,00	R	R
KIM	3.4.11	Cavity walls - Made up of two half brick skins	m2	170,00	R	R
KIM	3.4.12	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	150,00	R	R
KIM	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	150,00	R	R
KIM	3.4.14	Cutting toothings and bonding new brickwork to existing	m	80,00	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>				
KIM	3.4.15	Extra over brickwork for face brickwork in foundation walls, ramp, etc	m2	50,00	R	R
KIM	3.4.16	Extra over brickwork for face brickwork	m2	90,00	R	R
KIM	3.4.17	Half brick face brick walls in class II mortar pointed on both sides	m2	70,00	R	R
KIM	3.4.18	Fair cutting and fitting around pipe not exceeding 100mm external diameter	No	10,00	R	R
KIM	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				
KIM	3.4.20	8mm Diameter mild steel bars built in horizontally	ton	1,00	R	R
		Prestressed precast lintels				
KIM	3.4.21	110 x 75mm Lintels in lengths not exceeding 3m	m	60,00	R	R
KIM	3.4.22	110 x 75mm Lintels exceeding 3,0m but not exceeding 4,5m	m	40,00	R	R
		Fabric Reinforcement				
KIM	3.4.23	75mm Galvanised brickforce suitable for half brick walls	m	370,00	R	R
KIM	3.4.24	150mm Galvanised brickforce suitable for one brick walls	m	370,00	R	R
		Galvanised hoop iron cramps, ties, etc				
KIM	3.4.25	30 x 1,6mm Roof tie 1500mm long with one end fixed to timber and other end built into brickwork	No	20,00	R	R
		Bagging of 1:3 cement and sand mixture				
KIM	3.4.26	On brick walls	m2	70,00	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				
KIM	3.5.1	In walls	m2	120,00	R	R
		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
KIM	3.5.2	Under surface beds, etc	m2	370,00	R	R
		Three coats paint sealer "plascon wallseal" or equal approved without membrane				
KIM	3.5.3	On parapet walls	m2	120,00	R	R
		Two coats "Brixéal" or equal approved bitumen emulsion waterproof coating				
KIM	3.5.4	On walls	m2	120,00	R	R
		JOINT SEALANTS ETC				
		<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
KIM	3.5.5	In joints between window or door frames and concrete or brickwork	m	20,00	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>				
KIM	3.5.6	On flat roofs / floors.	m2	250,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM 3.5.7	On turn-ups and turn-downs exceeding 300mm girth	m2	10,00	R	R
KIM 3.5.8	On sloping roofs	m2	250,00	R	R
KIM 3.5.9	On tops and sides of inverted beams	m2	50,00	R	R
KIM 3.5.10	On bottoms and sides of floor ducts, channels, etc	m2	50,00	R	R
KIM 3.5.11	On bottoms and sides of box gutters	m2	50,00	R	R
KIM 3.5.12	On bottoms and sides of plant boxes	m2	20,00	R	R
KIM 3.5.13	Sealing edges to brickwork or concrete	m	20,00	R	R
KIM 3.5.14	Sealing edges to brickwork or concrete including trowelled mastic bead	m	20,00	R	R
KIM 3.5.15	Additional membrane 300mm girth at internal and external angles	m	20,00	R	R
KIM 3.5.16	Dressing and sealing around pipe not exceeding 200mm external diameter, including additional membrane, gussets, collars, etc	No	10,00	R	R
KIM 3.5.17	On internal surfaces of 300 x 300 x 300mm deep sump, catchpit, etc	No	6,00	R	R
KIM 3.5.18	On concrete flat roofs including all turn-ups and turndowns and sealing edges where required.	m2	128,00	R	R
	PROTECTIVE STONE DRESSING				
	<u>19mm Crushed stone dressing evenly spread with larger stones around outlets</u>				
KIM 3.5.19	25mm Thick on waterproofing to flat roofs	m2	120,00	R	R
	PROTECTIVE ROOFING PAINT				
	<u>Two coats "Silvakote" or similar approved bituminous aluminium paint</u>				
KIM 3.5.20	On waterproofing to roofs	m2	120,00	R	R
KIM 3.5.21	On inside of existing box gutters	m2	120,00	R	R
	PROTECTIVE ROOFING SHEETING				
	<u>Type 40 bituminous fibreglass felt laid loose</u>				
KIM 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>				
KIM 3.5.23	6 x 10mm In saw cut joints in floors	m	20,00	R	R
KIM 3.5.24	6 x 10mm In expansion joints in tiled walls etc	m	20,00	R	R
KIM 3.5.25	10 x 15mm In expansion joints in tiled floors etc	m	20,00	R	R
KIM 3.5.26	10 x 15mm In expansion joints in floors including raking out expansion joint filler as necessary	m	20,00	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>				
KIM	3.6.1	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	20,00	R	R
KIM	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	20,00	R	R
		<u>40mm Thick semi-solid flush panel doors with sapele hardwood veneer both sides suitable for varnish</u>				
KIM	3.6.3	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	20,00	R	R
KIM	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	20,00	R	R
		<u>44mm Thick solid door suitable for varnish or painting and hung to steel, aluminium or timber frames</u>				
KIM	3.6.5	Provide the prime cost of R 3000.00 per door leaf & hinges for single door openings	No	30,00	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				
KIM	3.7.1	Ceilings installed using propriety framing system all according to manufacturers specifications	m2	150,00	R	R
KIM	3.7.2	Vertical ceilings installed using propriety framing system all according to manufacturers specifications	m2	120,00	R	R
KIM	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>				
KIM	3.7.4	Ceilings suspended below soffits	m2	150,00	R	R
KIM	3.7.5	Horizontal bulkheads suspended below concrete soffits	m2	120,00	R	R
KIM	3.7.6	Sloping bulkheads suspended below concrete soffits	m2	120,00	R	R
KIM	3.7.7	Extra over ceiling for opening for sprinkler head	No	20,00	R	R
KIM	3.7.8	Extra over ceiling for opening for down lighter	No	20,00	R	R
KIM	3.7.9	Extra over ceiling for 600 x 1 200mm light fitting	No	20,00	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>				
KIM	3.7.10	Ceilings suspended below soffits	m2	150,00	R	R
KIM	3.7.11	Horizontal bulkheads suspended below concrete soffits	m2	120,00	R	R
KIM	3.7.12	Sloping bulkheads suspended below concrete soffits	m2	120,00	R	R
KIM	3.7.13	Extra over ceiling for opening for sprinkler head	No	20,00	R	R
KIM	3.7.14	Extra over ceiling for opening for down lighter	No	20,00	R	R
KIM	3.7.15	Extra over ceiling for 600 x 600mm light fitting	No	20,00	R	R
		Cornices to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for cornices</u>				
KIM	3.7.16	Pre-painted / coated cornices plugged	m	70,00	R	R
		Shadowline to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for shadowline trim</u>				
KIM	3.7.17	Pre-painted / coated shadowline trim fixed	m	70,00	R	R
		Insulation				
KIM	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>				
KIM	3.7.19	Partitioning up to 2 600mm high with bottom and top tracks plugged	m2	170,00	R	R
KIM	3.7.20	Partitioning up to 2 900mm high with bottom and top tracks plugged	m2	150,00	R	R
KIM	3.7.21	Partitioning up to 3 500mm high with bottom and top tracks plugged	m2	140,00	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>					
KIM	3.8.1	On floors	m2	240,00	R		R
KIM	3.8.2	On treads and risers of stairs	m2	69,00	R		R
		<u>High traffic epoxy floor paint 2.5 to 3mm thick as per specialists specifications</u>					
KIM	3.8.3	On floors	m2	250,00	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>					
KIM	3.8.4	On floors	m2	240,00	R		R
KIM	3.8.5	On treads and risers of stairs	m2	69,00	R		R
		Materials & Plant					
KIM	3.8.6	Provision for Sundry Materials & Plant	Prov	1,00	R	15 575,00	R 15 575,00
KIM	3.8.7	Allow for profit & attendance if required	%		R	15 575,00	R
		Provisional Sum					
KIM	3.8.8	Sundry Floor Coverings Wall Linings etc Works	Sum	1,00	R	15 575,00	R 15 575,00
KIM	3.8.9	Allow for profit & attendance if required	%		R	15 575,00	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>				
KIM 3.9.1	On single doors	No	100,00	R	R
KIM 3.9.2	On double doors	No	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		HINGES, BOLTS, ETC				
		<u>Hinges</u>				
KIM	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>				
KIM	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>				
KIM	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>				
KIM	3.9.6	Provide the prime cost amount of R2500.00 each for panic bolts for single doors installed complete	No	20,00	R	R
KIM	3.9.7	Provide the prime cost amount of R5500.00 each for panic bolts for double doors installed complete	No	10,00	R	R
		HANDLES				
		<u>Handles etc</u>				
KIM	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>				
KIM	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>				
KIM	3.9.10	Provide the prime cost amount of R1000.00 each for toilet roll holder plugged to brickwork.	No	20,00	R	R
		<u>Soap Dispenser</u>				
KIM	3.9.11	Provide the prime cost amount of R1000.00 each for soap dispenser plugged to brickwork.	No	20,00	R	R
		<u>Stainless Steel Grab Rail</u>				
KIM	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					
		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>					
KIM	3.10.1	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	120,00	R		R
KIM	3.10.2	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	70,00	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>					
KIM	3.10.3	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	120,00	R		R
KIM	3.10.4	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	70,00	R		R
		Materials & Plant					
KIM	3.10.5	Provision for Sundry Materials & Plant	Prov	1,00	R	200 350,00	R 200 350,00
KIM	3.10.6	Allow for profit & attendance if required	%		R	200 350,00	R
		Provisional Sum					
KIM	3.10.7	Sundry Metalworks	Sum	1,00	R	200 350,00	R 200 350,00
KIM	3.10.8	Mark up provision on sundry Metalworks	%		R	200 350,00	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>				
KIM	3.11.1	25mm Thick on floors and landings	m2	370,00	R	R
KIM	3.11.2	30mm Thick on floors and landings	m2	120,00	R	R
KIM	3.11.3	30mm Thick on floors on waterproofing membrane	m2	100,00	R	R
KIM	3.11.4	Average 30mm thick on floors with upper surface to falls	m2	40,00	R	R
KIM	3.11.5	Average 30mm thick on floors with upper surface to falls and currents	m2	40,00	R	R
KIM	3.11.6	Average 40mm thick on roofs with upper surface to falls	m2	40,00	R	R
KIM	3.11.7	Average 40mm thick on roofs with upper surface to falls and currents	m2	40,00	R	R
KIM	3.11.8	25mm Thick on treads and risers of stairs including reedings	m2	40,00	R	R
KIM	3.11.9	30mm Thick on treads and risers of stairs	m2	40,00	R	R
KIM	3.11.10	30mm Thick on narrow widths not exceeding 300mm wide	m2	40,00	R	R
KIM	3.11.11	Reedings in finish on ramps	m2	40,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM 3.11.12	50 x 50mm Triangular fillets against walls, kerbs, etc	m	40,00	R	R
	<u>Screeds steel trowelled, on concrete</u>				
KIM 3.11.13	25mm Thick on floors and landings	m2	370,00	R	R
KIM 3.11.14	30mm Thick on floors and landings	m2	120,00	R	R
KIM 3.11.15	30mm Thick on floors on waterproofing membrane	m2	100,00	R	R
KIM 3.11.16	Average 30mm thick on floors with upper surface to falls	m2	40,00	R	R
KIM 3.11.17	Average 30mm thick on floors with upper surface to falls and currents	m2	40,00	R	R
KIM 3.11.18	Average 40mm thick on roofs with upper surface to falls	m2	40,00	R	R
KIM 3.11.19	Average 40mm thick on roofs with upper surface to falls and currents	m2	40,00	R	R
KIM 3.11.20	25mm Thick on treads and risers of stairs including reedings	m2	40,00	R	R
KIM 3.11.21	30mm Thick on treads and risers of stairs	m2	40,00	R	R
KIM 3.11.22	30mm Thick on narrow widths not exceeding 300mm wide	m2	40,00	R	R
KIM 3.11.23	Reedings in finish on ramps	m2	40,00	R	R
KIM 3.11.24	50 x 50mm Triangular fillets against walls, kerbs, etc	m2	40,00	R	R
	GRANOLITHIC				
	<u>Untinted granolithic on concrete</u>				
KIM 3.11.25	25mm Thick on floors and landings	m2	250,00	R	R
KIM 3.11.26	30mm Thick on floors and landings	m2	120,00	R	R
KIM 3.11.27	50mm Thick on floors and landings	m2	100,00	R	R
KIM 3.11.28	Average 30mm thick on floors with upper surface to falls	m2	40,00	R	R
KIM 3.11.29	Average 30mm thick on floors with upper surface to falls and currents	m2	40,00	R	R
KIM 3.11.30	Average 40mm thick on roofs with upper surface to falls	m2	40,00	R	R
KIM 3.11.31	Average 40mm thick on roofs with upper surface to falls and currents	m2	40,00	R	R
KIM 3.11.32	25mm Thick on treads and risers of stairs including reedings	m2	40,00	R	R
KIM 3.11.33	30mm Thick on treads and risers of stairs	m2	40,00	R	R
KIM 3.11.34	30mm Thick on narrow widths not exceeding 300mm wide	m2	40,00	R	R
KIM 3.11.35	Reedings in finish on ramps	m2	40,00	R	R
KIM 3.11.36	Skirtings 100mm high	m	40,00	R	R
KIM 3.11.37	Skirtings 100mm high stepped over treads and risers	m	40,00	R	R
	EXTERNAL PLASTER				
	Class I cement plaster on brickwork				
KIM 3.11.38	On walls	m2	570,00	R	R

[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>				
KIM 3.12.1	On walls	m2	250,00	R	R
KIM 3.12.2	On narrow widths	m2	70,00	R	R
	<u>Provide the prime cost amount of R 500.00 per m2 for porcelain wall tiles fixed with adhesive to:</u>				
KIM 3.12.3	On walls	m2	250,00	R	R
KIM 3.12.4	On narrow widths	m2	70,00	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>				
KIM 3.12.5	On floors	m2	400,00	R	R
KIM 3.12.6	On narrow widths	m2	70,00	R	R
KIM 3.12.7	On floors landings in patterns	m2	120,00	R	R
	<u>Provide the prime cost amount of R 500.00 per m2 for porcelain floor tiles fixed with adhesive to:</u>				
KIM 3.12.8	On floors	m2	370,00	R	R
KIM 3.12.9	On narrow widths	m2	70,00	R	R
KIM 3.12.10	On floors landings in patterns	m2	120,00	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				
	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>				
KIM	3.13.1	Single bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
KIM	3.13.2	Double bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	10,00	R	R
		Sinks				
		<u>Provide the prime cost amount of R 1800.00 each for sinks:</u>				
KIM	3.13.3	Stainless steel single end bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	10,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
KIM	3.13.4	Stainless steel double bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	10,00	R	R
		<u>Wash hand basin</u>				
KIM	3.13.5	Provide the prime cost amount of R 2200.00 each for wall mounted basin	No	10,00	R	R
		<u>Wash hand basin "Paraplegic"</u>				
KIM	3.13.6	Provide the prime cost amount of R 2200.00 each for wall mounted paraplegic basin	No	7,00	R	R
		<u>Urinals</u>				
KIM	3.13.7	Provide the prime cost amount of R 5000.00 each for wall mounted urinals	No	10,00	R	R
		Toilets etc				
KIM	3.13.8	Provide the prime cost amount of R 4000.00 each for toilets installed complete	No	20,00	R	R
KIM	3.13.9	Provide the prime cost amount of R 5000.00 each for paraplegic toilets installed complete		10,00	R	R
		WASTE UNIONS ETC				
		<u>"Cobra Watertech" or equal approved</u>				
KIM	3.13.10	40mm Wash trough waste	No	40,00	R	R
		TRAPS ETC				
		PVC				
KIM	3.13.11	Rubber waste reseal "P" 32x40mm (basin)	No	40,00	R	R
		TAPS, VALVES, ETC				
		Taps, showers etc				
KIM	3.13.12	Provide the prime cost amount of R 2000.00 each for taps and sink mixers	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM	3.13.13	Provide the prime cost amount of R 1500.00 each for shower heads	No	10,00	R	R
KIM	3.13.14	Provide the prime cost amount of R 2000.00 each for shower mixers	No	10,00	R	R
KIM	3.13.15	22mm Brass Non-return valve	No	10,00	R	R
		SANITARY PLUMBING				
		uPVC soil and vent pipes				
KIM	3.13.16	40mm Diameter Pipes	m	50,00	R	R
KIM	3.13.17	50mm Diameter Pipes	m	50,00	R	R
KIM	3.13.18	75mm Diameter Pipes	m	50,00	R	R
KIM	3.13.19	110mm Diameter Pipes	m	50,00	R	R
		Extra over uPVC soil and vent pipes for fittings				
KIM	3.13.20	40mm Bend	No	20,00	R	R
KIM	3.13.21	40mm Inspection bend	No	20,00	R	R
KIM	3.13.22	40mm Junction	No	20,00	R	R
KIM	3.13.23	50mm BSP adaptor	No	20,00	R	R
KIM	3.13.24	50mm Bend	No	20,00	R	R
KIM	3.13.25	50mm Inspection bend	No	20,00	R	R
KIM	3.13.26	50mm Junction	No	20,00	R	R
KIM	3.13.27	50mm Access bend	No	20,00	R	R
KIM	3.13.28	50mm vent valve	No	20,00	R	R
KIM	3.13.29	50mm Two way vent valve	No	20,00	R	R
KIM	3.13.30	50mm Inspection junction	No	20,00	R	R
KIM	3.13.31	75mm Bend	No	20,00	R	R
KIM	3.13.32	75mm Inspection bend	No	20,00	R	R
KIM	3.13.33	75mm Junction	No	20,00	R	R
KIM	3.13.34	75mm Inspection junction	No	20,00	R	R
KIM	3.13.35	75mm Reducing junction	No	20,00	R	R
KIM	3.13.36	75mm Inspection reducing junction	No	20,00	R	R
KIM	3.13.37	75mm Reducer	No	20,00	R	R
KIM	3.13.38	110mm Bend	No	20,00	R	R
KIM	3.13.39	110mm Inspection bend	No	20,00	R	R
KIM	3.13.40	110mm Junction	No	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM	3.13.41	110mm Inspection junction	No	20,00	R	R
KIM	3.13.42	110mm Reducing junction	No	20,00	R	R
KIM	3.13.43	110mm Inspection reducing junction	No	20,00	R	R
KIM	3.13.44	110mm Reducer	No	20,00	R	R
KIM	3.13.45	110mm Pan connector	No	20,00	R	R
KIM	3.13.46	110mm Two way vent valve	No	20,00	R	R
		Testing				
KIM	3.13.47	Testing waste pipe system	Item	1,00	R	R
		WATER SUPPLIES				
		Class 0 copper pipes with brass compression couplings				
KIM	3.13.48	15mm Pipes	m	50,00	R	R
KIM	3.13.49	15mm Pipes chased into brickwork or concrete	m	50,00	R	R
KIM	3.13.50	22mm Pipes	m	50,00	R	R
KIM	3.13.51	22mm Pipes chased into brickwork or concrete	m	50,00	R	R
KIM	3.13.52	28mm Pipes	m	50,00	R	R
KIM	3.13.53	28mm Pipes chased into brickwork or concrete	m	50,00	R	R
KIM	3.13.54	35mm Pipes	m	50,00	R	R
KIM	3.13.55	35mm Pipes chased into brickwork or concrete	m	50,00	R	R
KIM	3.13.56	42mm Pipes	m	50,00	R	R
KIM	3.13.57	54mm Pipes	m	50,00	R	R
KIM	3.13.58	67mm Pipes	m	50,00	R	R
KIM	3.13.59	76mm Pipes	m	50,00	R	R
KIM	3.13.60	108mm Pipes	m	50,00	R	R
		Extra over Class 0 copper pipes for capillary fittings				
KIM	3.13.61	15mm Fittings	No	20,00	R	R
KIM	3.13.62	22mm Fittings	No	20,00	R	R
KIM	3.13.63	28mm Fittings	No	20,00	R	R
KIM	3.13.64	35mm Fittings	No	20,00	R	R
KIM	3.13.65	42mm Fittings	No	20,00	R	R
KIM	3.13.66	54mm Fittings	No	20,00	R	R
KIM	3.13.67	67mm Fittings	No	20,00	R	R
KIM	3.13.68	76mm Fittings	No	20,00	R	R

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

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM	3.13.90	20mm Diameter 90 Degree Elbow	No	20,00	R	R
KIM	3.13.91	40mm Diameter Straight Coupling	No	20,00	R	R
KIM	3.13.92	40mm Diameter Reducing Coupling	No	20,00	R	R
KIM	3.13.93	40mm Diameter Equal Tee	No	20,00	R	R
KIM	3.13.94	40mm Diameter Male Adaptor	No	20,00	R	R
KIM	3.13.95	40mm Diameter 90 Degree Elbow	No	20,00	R	R
KIM	3.13.96	50mm Diameter Straight Coupling	No	20,00	R	R
KIM	3.13.97	50mm Diameter Reducing Coupling	No	20,00	R	R
KIM	3.13.98	50mm Diameter Equal Tee	No	20,00	R	R
KIM	3.13.99	50mm Diameter Male Adaptor	No	20,00	R	R
KIM	3.13.100	50mm Diameter 90 Degree Elbow	No	20,00	R	R
KIM	3.13.101	75mm Diameter Straight Coupling	No	20,00	R	R
KIM	3.13.102	75mm Diameter Reducing Coupling	No	20,00	R	R
KIM	3.13.103	75mm Diameter Equal Tee	No	20,00	R	R
KIM	3.13.104	75mm Diameter Male Adaptor	No	20,00	R	R
KIM	3.13.105	75mm Diameter 90 Degree Elbow	No	20,00	R	R
KIM	3.13.106	90mm Diameter Straight Coupling	No	20,00	R	R
KIM	3.13.107	90mm Diameter Reducing Coupling	No	20,00	R	R
KIM	3.13.108	90mm Diameter Equal Tee	No	20,00	R	R
KIM	3.13.109	90mm Diameter Male Adaptor	No	20,00	R	R
KIM	3.13.110	90mm Diameter 90 Degree Elbow	No	20,00	R	R
KIM	3.13.111	110mm Diameter Straight Coupling	No	20,00	R	R
KIM	3.13.112	110mm Diameter Reducing Coupling	No	20,00	R	R
KIM	3.13.113	110mm Diameter Equal Tee	No	20,00	R	R
KIM	3.13.114	110mm Diameter Male Adaptor	No	20,00	R	R
KIM	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>				
KIM	3.13.116	Provide the prime cost amount of R 3000.00 each for undercounter geysers	No	9,00	R	R
KIM	3.13.117	Provide the prime cost amount of R 7000.00 each for 100 litre geysers	No	7,00	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>				
KIM	3.14.1	On internal walls	m2	1000,00	R	R
KIM	3.14.2	On external walls	m2	500,00	R	R
KIM	3.14.3	On ceilings and beams	m2	500,00	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>				
KIM	3.14.4	On partitions	m2	370,00	R	R
KIM	3.14.5	On ceilings and cornices	m2	370,00	R	R
KIM	3.14.6	On fascias and barge boards	m2	120,00	R	R
		<u>Apply one coat Professional Alkali resistant plaster primer and three coats Paint (Professional Superior Matt Paint)</u>				
KIM	3.14.7	On Rhinolite walls	m2	370,00	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>				
KIM	3.14.8	On doors	m2	120,00	R	R
KIM	3.14.9	On door frames	m2	120,00	R	R
KIM	3.14.10	On windows	m2	120,00	R	R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>				
KIM	3.14.11	On palisade fencing	m2	250,00	R	R
KIM	3.14.12	On steel barriers	m2	120,00	R	R
KIM	3.14.13	On balustrades	m2	120,00	R	R
KIM	3.14.14	On gates, grilles, burglar screens etc.	m2	120,00	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>				
KIM	3.14.15	On boarded panelling	m2	120,00	R	R
KIM	3.14.16	On boarded ceilings	m2	120,00	R	R
KIM	3.14.17	On doors	m2	120,00	R	R
KIM	3.14.18	On door frames	m2	120,00	R	R
KIM	3.14.19	On skirtings	m	120,00	R	R
		<u>Prime bare areas with "Wood Primer" and apply two coats "Timber Varnish" (High gloss wood varnish)</u>				
KIM	3.14.20	On boarded panelling	m2	120,00	R	R
KIM	3.14.21	On boarded ceilings	m2	120,00	R	R
KIM	3.14.22	On doors	m2	120,00	R	R
KIM	3.14.23	On door frames	m2	120,00	R	R
KIM	3.14.24	On skirtings	m	120,00	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>				
KIM	3.14.25	On metal roof sheets	m2	620,00	R	R
KIM	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>				
KIM	3.14.27	On internal walls	m2	500,00	R	R
KIM	3.14.28	On external walls	m2	500,00	R	R
KIM	3.14.29	On ceilings and beams	m2	370,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Matt Paint)</u>				
KIM	3.14.30	On partitions	m2	370,00	R	R
KIM	3.14.31	On ceilings and cornices	m2	370,00	R	R
KIM	3.14.32	On fascias and barge boards	m2	120,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
KIM	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>					
KIM	3.14.34	Windows and door frames	m2	120,00	R		R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>					
KIM	3.14.35	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat ares)	m2	120,00	R		R
		PAINT ON WOOD					
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
KIM	3.14.36	On general surfaces	m2	120,00	R		R
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
KIM	3.14.37	On boarded panelling	m2	120,00	R		R
KIM	3.14.38	On boarded ceilings	m2	120,00	R		R
KIM	3.14.39	On doors	m2	120,00	R		R
KIM	3.14.40	On door frames	m2	120,00	R		R
KIM	3.14.41	On skirtings	m	120,00	R		R
		<u>Prepare and apply two coats "Timber Varnish" (High gloss wood varnish)</u>					
KIM	3.14.42	On boarded panelling	m2	120,00	R		R
KIM	3.14.43	On boarded ceilings	m2	120,00	R		R
KIM	3.14.44	On doors	m2	120,00	R		R
KIM	3.14.45	On door frames	m2	120,00	R		R
KIM	3.14.46	On skirtings	m	120,00	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>					
KIM	3.14.47	On metal roof sheets	m2	850,00	R		R
KIM	3.14.48	To cladding sheets	m2	120,00	R		R
		Materials & Plant					
KIM	3.14.49	Provision for Sundry Materials & Plant	Prov	1,00	R	38 925,00	R 38 925,00
KIM	3.14.50	Allow for profit & attendance if required	%		R	38 925,00	R
		Provisional Sum					
KIM	3.14.51	Sundry Paint Works	Sum	1,00	R	38 925,00	R 38 925,00
KIM	3.14.52	Allow for profit & attendance if required	%		R	38 925,00	R

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				CLUSTER 2		
				KIM		
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				
KIM	4.1.1	Trim and level terraced area and compact to set levels.	m2	370,00	R	R
		Digging up topsoil				
KIM	4.1.2	Digging up topsoil to an average depth of 150mm and preserving for use as filling	m3	70,00	R	R
		BULK EXCAVATION, FILLING ETC				
KIM	4.1.3	Open face excavation in earth over sloping site	m3	50,00	R	R
		Excavation				
KIM	4.1.4	Excavate in earth not exceeding 1000mm deep	m3	20,00	R	R
		Keeping excavations free of water				
KIM	4.1.5	Keeping excavations free of water	Item	1,00	R	R
		Extra over all excavations for carting away				
KIM	4.1.6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	60,00	R	R
		LAYER WORK				
		<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
KIM	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>				
KIM	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	120,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
KIM	4.1.9	G8 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.10	G7 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.11	G7 Gravel-soil material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.12	Extra over for G7 stabilised with Portland cement compacted to 95% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.13	Subbase course of G6 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.14	G5 Natural gravel material compacted in 150mm layers to 93% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.15	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.16	Base course of G4 natural gravel material in 150mm layers compacted to 98% Mod AASHTO density	m3	10,00	R	R
KIM	4.1.17	G2 base compacted to 100% Mod AASHTO density	m3	10,00	R	R
		Compaction of surfaces				
KIM	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	370,00	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>				
KIM	4.1.19	Under roads, paving etc.	m2	370,00	R	R
		TESTS				
KIM	4.1.20	<u>Prescribed tests to determine degree of compaction or similar approved properties of ground or filling</u>				
KIM	4.1.21	"Modified AASHTO Density" test	No	1,00	R	R
KIM	4.1.22	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	1,00	R	R
KIM	4.1.23	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	1,00	R	R
KIM	4.1.24	Atterberg limits test in accordance with methods A2 to A4 of TMH1	No	1,00	R	R
KIM	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>				
KIM	4.1.26	Paving to roadwork and parking to falls	m2	390,00	R	R
KIM	4.1.27	Extra over for curved edges	m	120,00	R	R
		Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing				
		KERBS ETC				
KIM	4.1.28	Fig.1 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	4.1.29	Fig.2 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	4.1.30	Fig.3 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	4.1.31	Fig.4 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	4.1.32	Fig.5 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	4.1.33	Fig.6 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	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
KIM	4.1.35	Fig.7 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	4.1.36	Fig.8 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	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
KIM	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
KIM	4.1.39	Fig.12 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	4.1.40	Fig.14 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
KIM	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>				
KIM	4.1.42	100mm Wide line	m	20,00	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				
KIM	4.2.1	110mm Diameter pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	130,00	R	R
		Extra over for uPVC fittings				
KIM	4.2.2	110mm Bend	No	10,00	R	R
KIM	4.2.3	110mm Junction	No	10,00	R	R
KIM	4.2.4	110mm Access junction	No	10,00	R	R
KIM	4.2.5	110mm Rodding Eye	No	10,00	R	R
		uPVC pipe Class 34 HD				
KIM	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	80,00	R	R
		Extra over for uPVC fittings				
KIM	4.2.7	160mm Bend	No	10,00	R	R
KIM	4.2.8	160mm Junction	No	10,00	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>				
KIM	4.3.1	Over 0m and up to 1.0m	No	4,00	R	R
KIM	4.3.2	Over 1.0m and up to 2.0m	No	2,00	R	R
KIM	4.3.3	Over 2m and up to 3m	No	2,00	R	R
KIM	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>				
KIM	4.3.5	Over 0m and up to 1.0m	No	1,00	R	R
KIM	4.3.6	Over 1.0m and up to 2.0m	No	1,00	R	R
KIM	4.3.7	Over 2m and up to 3m	No	1,00	R	R
KIM	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>				
KIM	4.3.9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	50,00	R	R
KIM	4.3.10	110mm Pipes laid in and including trenches not exceeding 1m deep	m	30,00	R	R
		<u>Extra over heavy duty (Class 34) uPVC sewer and drain pipes for fittings</u>				
KIM	4.3.11	110mm Bend	No	6,00	R	R
KIM	4.3.12	110mm Junction	No	6,00	R	R
KIM	4.3.13	110mm Access bend	No	6,00	R	R
KIM	4.3.14	110mm Access junction	No	6,00	R	R
KIM	4.3.15	110mm Rodding eye	No	6,00	R	R
		Class 34 uPVC pipes				
KIM	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	80,00	R	R
		Extra over items for uPVC fittings				
KIM	4.3.17	160 x 110 mm Diameter Y junction	No	6,00	R	R
KIM	4.3.18	160 x 160 mm Diameter Y junction	No	6,00	R	R
		Channel bends				
KIM	4.3.19	160mm Diameter 45 degree bend	No	6,00	R	R
KIM	4.3.20	160mm Diameter 90 degree bend	No	6,00	R	R
		Sockets				
KIM	4.3.21	160mm Diameter	No	6,00	R	R
		End caps				
KIM	4.3.22	160mm Diameter	No	6,00	R	R
		SUNDRIES				
KIM	4.3.23	Excavation in earth for pipe trenches, chambers, etc	m3	10,00	R	R
KIM	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
KIM	4.3.25	Risk of collapse to sides of trenches	m2	30,00	R	R
KIM	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
KIM	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					
KIM	5.9	Provide the sum of R270,000.00 for Roller Shutters & Hangar Doors by an approved sub-contractor	Sum	1,00	R 270 000,00	R	270 000,00
KIM	5.10	Allow for profit & attendance if required	%		R 270 000,00	R	
		GENERAL GLAZING					
KIM	5.11	Provide the sum of R134,000.00 for General Glazing by an approved sub-contractor	Sum	1,00	R 134 000,00	R	134 000,00
KIM	5.12	Allow for profit & attendance if required	%		R 134 000,00	R	
		ALUMINIUM FACADE CLADDING, SHOPFRONTS, WINDOWS AND DOORS					
KIM	5.13	Provide the sum of R270,000.00 for aluminium façade cladding, shopfronts, window and door installation by an approved sub-contractor	Sum	1,00	R 270 000,00	R	270 000,00
KIM	5.14	Allow for profit & attendance if required	%		R 270 000,00	R	
		SIGNAGE					
KIM	5.15	Provide the sum of R134,000.00 for corporate and directional signage by an approved subcontractor	Sum	1,00	R 134 000,00	R	134 000,00
KIM	5.16	Allow for profit & attendance if required	%		R 134 000,00	R	
		BLINDS, FURNITURE & FITTINGS					
KIM	5.17	Provide the sum of R202,000.00 for blinds, furniture and fittings by an approved subcontractor	Sum	1,00	R 202 000,00	R	202 000,00
KIM	5.18	Allow for profit & attendance if required	%		R 202 000,00	R	
		TENANT TEMPORARY RELOCATION & REINSTATEMENT					
KIM	5.19	Provide the sum of R 134,000.00 for tenant temporary relocation and reinstatement works by an approved subcontractor	Sum	1,00	R 134 000,00	R	134 000,00
KIM	5.20	Allow for profit & attendance if required	%		R 134 000,00	R	
		ASBESTOS REMOVAL					
KIM	5.21	Provide the sum of R134,000.00 for the Removal & Safe Disposal of Asbestos by an approved subcontractor	Sum	1,00	R 134 000,00	R	134 000,00
KIM	5.22	Allow for profit & attendance if required	%		R 134 000,00	R	
		GUTTERS & RAINWATER DISPOSAL SYSTEMS					
KIM	5.23	Provide the sum of R270,000.00 for Gutters & Rainwater Disposal Systems by an approved subcontractor	Sum	1,00	R 270 000,00	R	270 000,00
KIM	5.24	Allow for profit & attendance if required	%		R 270 000,00	R	

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS					
		GENERAL ELECTRICAL INSTALLATIONS					
KIM	5.25	Provide the sum of R812,000.0 for General Electical Installations by an approved subcontractor	Prov	1,00	R	812 000,00	R 812 000,00
KIM	5.26	Allow for profit & attendance if required	%		R	812 000,00	R
		SUB - STATION INSTALLATIONS					
KIM	5.27	Provide the sum of R134,000.00 for Sub Station Installations by an approved subcontractor	Sum	1,00	R	134 000,00	R 134 000,00
KIM	5.28	Allow for profit & attendance if required	%		R	134 000,00	R
		UPS INSTALLATIONS					
KIM	5.29	Provide the sum of R134,000.00 for UPS Installations by an approved subcontractor	Sum	1,00	R	134 000,00	R 134 000,00
KIM	5.30	Allow for profit & attendance if required	%		R	134 000,00	R
		GENERATOR INSTALLATION					
KIM	5.31	Provide the sum of R134,000.00 for the Generator Installation by an approved sub-contractor	Sum	1,00	R	134 000,00	R 134 000,00
KIM	5.32	Allow for profit & attendance if required	%		R	134 000,00	R
		FIRE DETECTION & FIRE STOPPING INSTALLATION					
KIM	5.33	Provide the sum of R202,000.00 for the Fire Detection & Fire Stopping Installation by an approved sub-contractor	Sum	1,00	R	202 000,00	R 202 000,00
KIM	5.34	Allow for profit & attendance if required	%		R	202 000,00	R
		ACCESS CONTROL					
KIM	5.35	Provide the sum of R66,000.00 for the Access Control System installation by an approved sub-contractor	Sum	1,00	R	66 000,00	R 66 000,00
KIM	5.36	Allow for profit & attendance if required	%		R	66 000,00	R
		CCTV INSTALLATION					
KIM	5.37	Provide the sum of R66,000.00 for CCTV installation by an approved sub-contractor	Sum	1,00	R	66 000,00	R 66 000,00
KIM	5.38	Allow for profit & attendance if required	%		R	66 000,00	R
		INTERNET AND TELECOMMUNICATION INSTALLATION					
KIM	5.39	Provide the sum of R134,000.00 for the internet and telecommunication installation by an approved subcontractor	Sum	1,00	R	134 000,00	R 134 000,00
KIM	5.40	Allow for profit & attendance if required	%		R	134 000,00	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		GENERAL MECHANICAL INSTALLATION				
KIM	5.41	Provide the sum of R812,000.00 for General Mechanical Installations by an approved subcontractor	Prov	1,00	R 812 000,00	R 812 000,00
KIM	5.42	Allow for profit & attendance if required	%		R 812 000,00	R
		FIRE PROTECTION INSTALLATIONS				
KIM	5.43	Provide the sum of R134,000.00 for Fire Protection Installations by an approved subcontractor	Sum	1,00	R 134 000,00	R 134 000,00
KIM	5.44	Allow for profit & attendance if required	%		R 134 000,00	R
		SPRINKLER INSTALLATIONS				
KIM	5.45	Provide the sum of R270,000.00 for Sprinkler Installations by an approved subcontractor	Sum	1,00	R 270 000,00	R 270 000,00
KIM	5.46	Allow for profit & attendance if required	%		R 270 000,00	R
		GAS SUPPRESSION INSTALLATIONS				
KIM	5.47	Provide the sum of R270,000.00 for Gas Suppression Installations by an approved subcontractor	Sum	1,00	R 270 000,00	R 270 000,00
KIM	5.48	Allow for profit & attendance if required	%		R 270 000,00	R
		SMOKE EXTRACTION INSTALLATIONS				
KIM	5.49	Provide the sum of R270,000.00 for Smoke Extraction Installations by an approved subcontractor	Sum	1,00	R 270 000,00	R 270 000,00
KIM	5.50	Allow for profit & attendance if required	%		R 270 000,00	R
		HVAC INSTALLATION				
KIM	5.51	Provide the sum of R812,000.00 for the HVAC installation by an approved sub-contractor	Sum	1,00	R 812 000,00	R 812 000,00
KIM	5.52	Allow for profit & attendance if required	%		R 812 000,00	R
		LANDSCAPING WORKS				
KIM	5.53	Provide the sum of R270,000.00 for Landscaping Works by an approved sub-contractor	Sum	1,00	R 270 000,00	R 270 000,00
KIM	5.54	Allow for profit & attendance if required	%		R 270 000,00	R
		SPECIALIST WORKS				
KIM	5.55	Provide the sum of R134,000.00 for Specialist Works by an approved sub-contractor	Prov	1,00	R 134 000,00	R 134 000,00
KIM	5.56	Allow for profit & attendance if required	%		R 134 000,00	R
		CARRIED TO SITE SUMMARY				R

				CLUSTER 2		
				KIM		
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				
KIM	6.1	General building / building rubble waste to landfill	ton	70,00	R	R
		RECYCLING / REPURPOSING RETURN				
KIM	6.2	Glass	Kg	250,00	(-R	(-R
KIM	6.3	Plastics	Kg	250,00	(-R	(-R
KIM	6.4	Steel	Kg	250,00	(-R	(-R
KIM	6.5	Stainless Steel	Kg	250,00	(-R	(-R
KIM	6.6	Copper	Kg	250,00	(-R	(-R
KIM	6.7	Aluminium	Kg	250,00	(-R	(-R
KIM	6.8	Brass	Kg	250,00	(-R	(-R
KIM	6.9	Iron	Kg	250,00	(-R	(-R

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	SITE SUMMARY - KIM	PAGE NO.	AMOUNT
	PRICE SUMMARY		
1	Preliminaries	83	R
2	Labour Schedule	86	R
3	Building Works	139	R
4	External Works	149	R
5	Provisional Sums	153	R
6	Waste Disposal, Repurposing & Recycling	155	R
	CARRIED TO CLUSTER SUMMARY		R

UPINGTON AIRPORT - UPT

				CLUSTER 2		
				UPT		
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				
UPT	1.1	General Insurance Requirement (Sureties, guarantees, bonds, workman's compensation etc)	Sum	1,00	R	R
UPT	1.2	Contract works insurance	Sum	1,00	R	R
UPT	1.3	Public liability insurance	Sum	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
UPT	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>					
UPT	1.5	Offices (Accommodates up to 5 staff x 1 off)	month	18,00	R		R
UPT	1.6	Storage sheds (12m x 2.4m x 1 off - Includes Delivery & Removal)	month	18,00	R		R
UPT	1.7	Ablution & Latrine facilities (5 x Male & 3 x Urinal & 3 x Female & 1 x Paraplegic & 2 x Standalone Units)	month	18,00	R		R
UPT	1.8	Electric Power & Lighting	month	18,00	R		R
UPT	1.9	Water supplies, electric power and communications	month	18,00	R		R
		<u>Supervision</u>					
		<u>Supervisor/Foreman</u>					
UPT	1.10	Site Supervision for the duration of the contract (x 1 Resource)	month	18,00	R		R
		<u>Safety Management</u>					
UPT	1.11	Provision of full time Construction Site Safety Officer (x 1 Resource)	month	18,00	R		R
UPT	1.12	Compliance with the Occupational Health and Safety Act (OHSA) and Regulations (including the Construction Regulations, 2014)	month	18,00	R		R
UPT	1.13	Site Security	month	18,00	R		R
UPT	1.14	Signage for the site	month	18,00	R		R
UPT	1.15	Other time related obligations	month	18,00	R		R
		VALUE RELATED ITEMS					
UPT	1.16	Contractual requirements	Sum	1,00	R		R
UPT	1.17	Provision for Specialised PPE Requirements	Prov	1,00	R	35 961,27	R 35 961,27
UPT	1.18	Allow for profit & attendance if required	%		R	35 961,27	R
UPT	1.19	Provision for Location and Protection of Existing Underground Services	Prov	1,00	R	21 576,76	R 21 576,76
UPT	1.20	Allow for profit & attendance if required	%		R	21 576,76	R
UPT	1.21	Provision for Compliance with Environmental requirements	Prov	1,00	R	21 576,76	R 21 576,76
UPT	1.22	Allow for profit & attendance if required	%		R	21 576,76	R
UPT	1.23	Provision for ACSA Training and Airports Permits (ACSA Issue)	Prov	1,00	R	71 922,54	R 71 922,54
UPT	1.24	Allow for profit & attendance if required	%		R	71 922,54	R
		Materials & Plant					
UPT	1.25	Provision for Sundry Materials & Plant	Prov	1,00	R	28 974,86	R 28 974,86
UPT	1.26	Allow for profit & attendance if required	%		R	28 974,86	R
		Provisional Sum					
UPT	1.27	Sundry preliminary requirements	Prov	1,00	R	28 974,86	R 28 974,86
UPT	1.28	Allow for profit & attendance if required	%		R	28 974,86	R

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				CLUSTER 2		
				UPT		
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)				
UPT	2.1	Normal Hours	Man Hours	60,00	R	R
UPT	2.2	After Hours	Man Hours	30,00	R	R
UPT	2.3	Sundays & Public Holidays	Man Hours	20,00	R	R
		Additional Supervisor / Foreman (Civil Works)				
UPT	2.4	Normal Hours	Man Hours	60,00	R	R
UPT	2.5	After Hours	Man Hours	30,00	R	R
UPT	2.6	Sundays & Public Holidays	Man Hours	20,00	R	R
		Handyman				
UPT	2.7	Normal Hours	Man Hours	60,00	R	R
UPT	2.8	After Hours	Man Hours	30,00	R	R
UPT	2.9	Sundays & Public Holidays	Man Hours	20,00	R	R
		Brick Layer				
UPT	2.10	Normal Hours	Man Hours	60,00	R	R
UPT	2.11	After Hours	Man Hours	30,00	R	R
UPT	2.12	Sundays & Public Holidays	Man Hours	20,00	R	R
		Carpenter				
UPT	2.13	Normal Hours	Man Hours	60,00	R	R
UPT	2.14	After Hours	Man Hours	30,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	2.15	Sundays & Public Holidays	Man Hours	20,00	R	R
		Tiler				
UPT	2.16	Normal Hours	Man Hours	60,00	R	R
UPT	2.17	After Hours	Man Hours	30,00	R	R
UPT	2.18	Sundays & Public Holidays	Man Hours	20,00	R	R
						R -
		Plasterer				
UPT	2.19	Normal Hours	Man Hours	60,00	R	R
UPT	2.20	After Hours	Man Hours	30,00	R	R
UPT	2.21	Sundays & Public Holidays	Man Hours	20,00	R	R
		Painter				
UPT	2.22	Normal Hours	Man Hours	60,00	R	R
UPT	2.23	After Hours	Man Hours	30,00	R	R
UPT	2.24	Sundays & Public Holidays	Man Hours	20,00	R	R
		Welder				
UPT	2.25	Normal Hours	Man Hours	60,00	R	R
UPT	2.26	After Hours	Man Hours	30,00	R	R
UPT	2.27	Sundays & Public Holidays	Man Hours	20,00	R	R
		General Assistant				
UPT	2.28	Normal Hours	Man Hours	350,00	R	R
UPT	2.29	After Hours	Man Hours	30,00	R	R
UPT	2.30	Sundays & Public Holidays	Man Hours	20,00	R	R
		Shutterhand / Formwork Specialist Installer				
UPT	2.31	Normal Hours	Man Hours	60,00	R	R
UPT	2.32	After Hours	Man Hours	30,00	R	R
UPT	2.33	Sundays & Public Holidays	Man Hours	20,00	R	R
		Waterproofing Technician / Specialist Installer				
UPT	2.34	Normal Hours	Man Hours	60,00	R	R
UPT	2.35	After Hours	Man Hours	30,00	R	R
UPT	2.36	Sundays & Public Holidays	Man Hours	20,00	R	R
		Ceiling & Partitions Specialist Installer				
UPT	2.37	Normal Hours	Man Hours	60,00	R	R
UPT	2.38	After Hours	Man Hours	30,00	R	R

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				CLUSTER 2		
				UPT		
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				
UPT	3.1.1	Temporary hoarding of galvanised diamond mesh covered with shade cloth 2.7m high and removal later	m	40,00	R	R
UPT	3.1.2	Extra over for galvanised mild steel double gate and frame 1 511 x 2032mm high	No	2,00	R	R
UPT	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	50,00	R	R
UPT	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
UPT	3.1.5	Hoarding between concrete floor and ceiling formed of suitable timber framing with 22mm thick shutter board	m2	20,00	R	R
UPT	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	20,00	R	R
UPT	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	40,00	R	R
		REMOVAL OF EXISTING WORK				
		Breaking up and removing mass concrete including reinforcing and carting to approved disposal area within the airport.				
UPT	3.1.8	Stairs with landings, waist, treads, risers, ramps, surface beds, strip footing, reinforced concrete etc	m3	40,00	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.				
UPT	3.1.9	Concrete Columns, beams and slabs not exceeding 3m high	m3	10,00	R	R
UPT	3.1.10	Manholes, bases, strip footings etc not exceeding 1.5m deep	m3	10,00	R	R
UPT	3.1.11	Surface beds not exceeding 100mm thick	m3	10,00	R	R
UPT	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.				
UPT	3.1.13	Half brick wall	m2	50,00	R	R
UPT	3.1.14	One brick wall	m2	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taking up and removing vinyl floor coverings, tiles, carpets, etc				
UPT	3.1.15	Ceramic / Porcelain / Marble tiles to floor including preparing floor for new floor covering	m2	180,00	R	R
UPT	3.1.16	Vinyl / plastic / carpet floor covering including preparing floors for new floor coverings	m2	70,00	R	R
		Hacking up and removing off coverings to walls, columns, partitionwalls etc. including preparing surfaces for new finishes				
UPT	3.1.17	Tiles from walls, columns	m2	40,00	R	R
UPT	3.1.18	Wall paper covering from walls, columns etc.	m2	20,00	R	R
		Taking out / off and removing sundry metalwork				
UPT	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	50,00	R	R
		Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)				
UPT	3.1.20	Timber single door and steel frame not exceeding 2,5m ²	No	10,00	R	R
UPT	3.1.21	Timber double door and steel frame exceeding 2,5m ² and not exceeding 5m ²	No	10,00	R	R
UPT	3.1.22	Timber double door and steel frame exceeding 5m ² and not exceeding 7.5m ²	No	10,00	R	R
UPT	3.1.23	Glazed aluminium/steel/timber window not exceeding 2,5m ²	No	10,00	R	R
UPT	3.1.24	Glazed aluminium/steel/timber window exceeding 2,5m ² and not exceeding 5m ²	No	10,00	R	R
UPT	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				
UPT	3.1.26	Suspended ceilings, including suspension grid, hangers, cornices, etc not exceeding 3.0m high	m2	180,00	R	R
UPT	3.1.27	Drywall partitions not exceeding 3.0m high, including doors, glazed borrowed lights, etc	m	110,00	R	R
UPT	3.1.28	Toilet partitioning not exceeding 3.0 m high	m2	40,00	R	R
		Taking out and removing sundry joinery work, fittings, etc				
UPT	3.1.29	Skirtings - various widths	m	70,00	R	R
UPT	3.1.30	Timber sills - various widths	m	20,00	R	R
UPT	3.1.31	Timber wall mounted cupboard - Measured by surface area covered on the wall	m2	20,00	R	R
UPT	3.1.32	Timber floor mounted cupboard - Measured by surface area covered on the floor	m2	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	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
UPT	3.1.34	Timber/stone counters	m2	20,00	R	R
		Taking out/off and removing sundry metalwork				
UPT	3.1.35	Steel pipe handrails from walls, including brackets, and making good plaster finish	m	20,00	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				
UPT	3.1.36	Not exceeding 100mm thick Screed from floors	m2	180,00	R	R
UPT	3.1.37	Internal plaster from walls and columns not exceeding 3m high	m2	180,00	R	R
UPT	3.1.38	Internal plaster from ceilings and beams not exceeding 3m high	m2	180,00	R	R
UPT	3.1.39	External plaster from walls, columns and beams not exceeding 3m high	m2	180,00	R	R
		POWER WASH ON EXISTING WALLS				
UPT	3.1.40	Power wash on existing walls (Internal and external walls) as per Employer Agent instruction	m2	180,00	R	R
		Taking down and removing				
UPT	3.1.41	Mesh fence with steel posts and droppers	m2	360,00	R	R
UPT	3.1.42	Steel palisade fence with steel posts and droppers	m2	360,00	R	R
UPT	3.1.43	Concrete palisade fence with concrete posts and droppers	m2	360,00	R	R
UPT	3.1.44	Security fence with 45 degree barbed wire overhang with posts and droppers	m2	360,00	R	R
UPT	3.1.45	Half brick boundary or yard wall	m2	90,00	R	R
UPT	3.1.46	One brick boundary or yard wall	m2	90,00	R	R
UPT	3.1.47	Clearvu Fence not exceeding 2,0m high with steel posts	m	90,00	R	R
		Lift and removing pre-cast concrete including bedding, etc				
UPT	3.1.48	60mm Interlocking paving	m2	330,00	R	R
UPT	3.1.49	80mm Interlocking paving	m2	330,00	R	R
UPT	3.1.50	50mm Cement or brick paving	m2	330,00	R	R
UPT	3.1.51	Fig.1 Kerbing	m	50,00	R	R
UPT	3.1.52	Fig.2 Kerbing	m	50,00	R	R
UPT	3.1.53	Fig.3 Kerbing	m	50,00	R	R
UPT	3.1.54	Fig.4 Kerbing	m	50,00	R	R
UPT	3.1.55	Fig.5 Kerbing	m	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	3.1.56	Fig.6 Kerbing	m	50,00	R	R
UPT	3.1.57	Fig.6 Kerbing - Mountable	m	50,00	R	R
UPT	3.1.58	Fig.7 Kerbing	m	50,00	R	R
UPT	3.1.59	Fig.8 Kerbing	m	50,00	R	R
UPT	3.1.60	Fig.8b Kerbing - Mountable	m	50,00	R	R
UPT	3.1.61	Fig.8c Kerbing - Mountable	m	50,00	R	R
UPT	3.1.62	Fig.12 Kerbing	m	50,00	R	R
UPT	3.1.63	Fig.14 Kerbing	m	50,00	R	R
UPT	3.1.64	Fig.16 Kerbing	m	50,00	R	R
		PREPARATORY WORK TO EXISTING SURFACES				
UPT	3.1.65	Hacking faces of existing concrete columns, beams, etc to receive plaster	m2	20,00	R	R
UPT	3.1.66	Making good defects in existing screeded floors with "an SABS approved self leveling screed"	m2	20,00	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>				
UPT	3.1.67	Ends of half brick walls	m	20,00	R	R
UPT	3.1.68	Ends of one brick walls	m	20,00	R	R
UPT	3.1.69	Faces of walls where half brick cross walls removed	m	10,00	R	R
UPT	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				
UPT	3.1.71	Ceilings in patches	m2	10,00	R	R
UPT	3.1.72	Ceilings where half brick walls removed	m	10,00	R	R
UPT	3.1.73	Ceilings where one brick walls removed	m	10,00	R	R
		Making good cement screeds				
UPT	3.1.74	Not exceeding 100mm Thick on floors in patches	m2	20,00	R	R
UPT	3.1.75	Floors where half brick walls removed	m	10,00	R	R
UPT	3.1.76	Floors where one brick walls removed	m	10,00	R	R
		Making good internal cement plaster				
UPT	3.1.77	Walls in patches	m2	10,00	R	R
UPT	3.1.78	Concrete ceilings in patches	m2	10,00	R	R
UPT	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				
UPT	3.2.1	Stripping average 300mm thick layer of top soil and stockpile on site	m2	290,00	R	R
		EXCAVATION, RISK OF COLLAPSE, FILLING, ETC				
		Excavation in earth not exceeding 2m deep including carting to a stockpile				
UPT	3.2.2	To trenches	m3	70,00	R	R
UPT	3.2.3	To holes	m3	10,00	R	R
UPT	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				
UPT	3.2.5	To trenches	m3	40,00	R	R
UPT	3.2.6	To holes	m3	10,00	R	R
UPT	3.2.7	Reduced levels under floors	m3	10,00	R	R
		EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
		Extra over trench and hole excavations in earth for excavation in				
UPT	3.2.8	EO: Soft rock	m3	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
UPT	3.2.9	EO: Hard rock	m3	10,00	R		R
		Extra over all excavations for carting away					
UPT	3.2.10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	60,00	R		R
		Risk of collapse to sides of excavation n.e 2m deep					
UPT	3.2.11	To trenches	m2	60,00	R		R
UPT	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					
UPT	3.2.13	To trenches	m2	60,00	R		R
UPT	3.2.14	To holes	m2	20,00	R		R
		Keeping excavations free of water					
UPT	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					
UPT	3.2.16	Under foundations, floors, steps, pavings, etc	m3	30,00	R		R
		Earth filling supplied (G5) by contractor compacted to 93% Mod AASHTO density					
UPT	3.2.17	Under floors, steps, paving, foundations, manholes etc	m3	50,00	R		R
		Compaction of surfaces					
UPT	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	140,00	R		R
		Prescribed density tests on filling					
UPT	3.2.19	"Modified AASHTO Density" test	No	1,00	R		R
UPT	3.2.20	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	1,00	R		R
		SOIL POISONING					
		Soil insecticide					
UPT	3.2.21	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	70,00	R		R
UPT	3.2.22	To bottoms and sides of trenches etc	m2	70,00	R		R
		Materials & Plant					
UPT	3.2.23	Provision for Sundry Materials & Plant	Prov	1,00	R	4 500,00	R 4 500,00
UPT	3.2.24	Allow for profit & attendance if required	%		R	4 500,00	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				
UPT 3.3.1	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		20 Mpa/20mm vibrated reinforced concrete				
UPT	3.3.2	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	10,00	R	R
UPT	3.3.3	To columns	m3	10,00	R	R
UPT	3.3.4	To slabs	m3	10,00	R	R
UPT	3.3.5	To beams	m3	10,00	R	R
UPT	3.3.6	Walls	m3	10,00	R	R
		25 Mpa/20mm vibrated reinforced concrete				
UPT	3.3.7	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	10,00	R	R
UPT	3.3.8	To columns	m3	10,00	R	R
UPT	3.3.9	To slabs	m3	10,00	R	R
UPT	3.3.10	To beams	m3	6,00	R	R
UPT	3.3.11	Walls	m3	6,00	R	R
		30MPa/20mm vibrated reinforced concrete				
UPT	3.3.12	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	5,00	R	R
UPT	3.3.13	To columns	m3	3,00	R	R
UPT	3.3.14	To slabs	m3	3,00	R	R
UPT	3.3.15	To beams	m3	3,00	R	R
UPT	3.3.16	Walls	m3	3,00	R	R
		35 Mpa/20mm vibrated reinforced concrete				
UPT	3.3.17	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	3,00	R	R
UPT	3.3.18	To columns	m3	1,00	R	R
UPT	3.3.19	To slabs	m3	1,00	R	R
UPT	3.3.20	To beams	m3	1,00	R	R
UPT	3.3.21	Walls	m3	1,00	R	R
		40 Mpa/20mm vibrated reinforced concrete				
UPT	3.3.22	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	3,00	R	R
UPT	3.3.23	To columns	m3	1,00	R	R
UPT	3.3.24	To slabs	m3	1,00	R	R
UPT	3.3.25	To beams	m3	1,00	R	R
UPT	3.3.26	Walls	m3	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TEST CUBES				
UPT	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				
UPT	3.3.28	Surface beds, slabs,beams, walls, paving etc	m2	70,00	R	R
		Finishing top surfaces of concrete smooth with a steel trowel				
UPT	3.3.29	Surface beds, slabs,beams, walls, paving etc	m2	70,00	R	R
		Finishing top surfaces of concrete smooth with a power float				
UPT	3.3.30	Surface beds, slabs,beams, walls, paving etc	m2	70,00	R	R
		Scabble existing concrete surfaces, wire brush corroded rebar and apply "Prostruct 616" or similar approved wet to dry concrete adhesive				
UPT	3.3.31	Side of existing concrete	m2	40,00	R	R
		Finishing top surfaces of concrete with and including a nonslip brushed concrete finish including wave-like lines parallel				
UPT	3.3.32	To falls	m2	40,00	R	R
		35MPa non-shrink grout				
UPT	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				
UPT	3.3.34	40mm Diameter opening	No	6,00	R	R
UPT	3.3.35	50mm Diameter opening	No	5,00	R	R
UPT	3.3.36	110mm Diameter opening	No	4,00	R	R
UPT	3.3.37	200mm Diameter opening	No	3,00	R	R
UPT	3.3.38	250mm Diameter opening	No	2,00	R	R
UPT	3.3.39	350mm Diameter opening	No	1,00	R	R
UPT	3.3.40	450mm Diameter opening	No	1,00	R	R
		Rough formwork to sides				
UPT	3.3.41	Edges , risers, ends and reveals not exceeding 300 mm high	m	70,00	R	R
UPT	3.3.42	To ground beams	m2	40,00	R	R
		Smooth formwork to sides including supports etc.				
UPT	3.3.43	To beams	m2	30,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	3.3.44	To columns	m2	30,00	R	R
UPT	3.3.45	To pits	m2	30,00	R	R
UPT	3.3.46	To ramps	m2	30,00	R	R
UPT	3.3.47	To walls	m2	30,00	R	R
		Smooth formwork to soffits				
UPT	3.3.48	Beams propped up exceeding 3,5m and not exceeding 5m high	m2	40,00	R	R
UPT	3.3.49	Slab propped up exceeding 3,5m and not exceeding 5m high	m2	80,00	R	R
		Formwork to sloping top surfaces (pitch exceeding 35 degrees)				
UPT	3.3.50	Concrete humps/bunding, etc not exceeding 300mm wide	m	14,00	R	R
		ISOLATION JOINTS ETC				
		Joint sealants				
		Expansion joints with softboard between vertical concrete surfaces				
UPT	3.3.51	Silicone sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	20,00	R	R
UPT	3.3.52	Polysulphide sealing compound in 10 - 50 mm wide joints between units including backing strips, bond breaker, primer etc	m	20,00	R	R
		Saw cut joints				
UPT	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	20,00	R	R
		REINFORCEMENT (PROVISIONAL)				
		Mild tensile steel reinforcement to structural concrete work				
UPT	3.3.54	25mm Diameter bars	ton	0,50	R	R
UPT	3.3.55	20mm Diameter bars	ton	0,50	R	R
UPT	3.3.56	16mm Diameter bars	ton	0,50	R	R
UPT	3.3.57	12mm Diameter bars	ton	0,50	R	R
UPT	3.3.58	10mm Diameter bars	ton	0,50	R	R
UPT	3.3.59	8mm Diameter bars	ton	0,50	R	R
		High tensile steel reinforcement to structural concrete work				
UPT	3.3.60	25mm Diameter bars	ton	0,50	R	R
UPT	3.3.61	20mm Diameter bars	ton	0,50	R	R
UPT	3.3.62	16mm Diameter bars	ton	0,50	R	R
UPT	3.3.63	12mm Diameter bars	ton	0,50	R	R
UPT	3.3.64	10mm Diameter bars	ton	0,50	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>				
UPT	3.4.1	Piers	m3	3,00	R	R
UPT	3.4.2	Half brick walls	m2	70,00	R	R
UPT	3.4.3	One brick walls	m2	90,00	R	R
UPT	3.4.4	Cavity walls - Made up of Two half brick skins	m2	30,00	R	R
UPT	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
UPT	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
UPT	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
UPT	3.4.8	Piers	m3	3,00	R	R
UPT	3.4.9	Half brick walls	m2	180,00	R	R
UPT	3.4.10	One brick walls	m2	220,00	R	R
UPT	3.4.11	Cavity walls - Made up of two half brick skins	m2	100,00	R	R
UPT	3.4.12	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	90,00	R	R
UPT	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	90,00	R	R
UPT	3.4.14	Cutting toothings and bonding new brickwork to existing	m	70,00	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>				
UPT	3.4.15	Extra over brickwork for face brickwork in foundation walls, ramp, etc	m2	30,00	R	R
UPT	3.4.16	Extra over brickwork for face brickwork	m2	44,00	R	R
UPT	3.4.17	Half brick face brick walls in class II mortar pointed on both sides	m2	40,00	R	R
UPT	3.4.18	Fair cutting and fitting around pipe not exceeding 100mm external diameter	No	10,00	R	R
UPT	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				
UPT	3.4.20	8mm Diameter mild steel bars built in horizontally	ton	0,50	R	R
		Prestressed precast lintels				
UPT	3.4.21	110 x 75mm Lintels in lengths not exceeding 3m	m	40,00	R	R
UPT	3.4.22	110 x 75mm Lintels exceeding 3,0m but not exceeding 4,5m	m	20,00	R	R
		Fabric Reinforcement				
UPT	3.4.23	75mm Galvanised brickforce suitable for half brick walls	m	220,00	R	R
UPT	3.4.24	150mm Galvanised brickforce suitable for one brick walls	m	220,00	R	R
		Galvanised hoop iron cramps, ties, etc				
UPT	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				
UPT	3.4.26	On brick walls	m2	40,00	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				
UPT 3.5.1	In walls	m2	70,00	R	R
	One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
UPT 3.5.2	Under surface beds, etc	m2	220,00	R	R
	Three coats paint sealer "plascon wallseal" or equal approved without membrane				
UPT 3.5.3	On parapet walls	m2	70,00	R	R
	Two coats "Brixial" or equal approved bitumen emulsion waterproof coating				
UPT 3.5.4	On walls	m2	70,00	R	R
	JOINT SEALANTS ETC				
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
UPT 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>				
UPT 3.5.6	On flat roofs / floors.	m2	150,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT 3.5.7	On turn-ups and turn-downs exceeding 300mm girth	m2	10,00	R	R
UPT 3.5.8	On sloping roofs	m2	140,00	R	R
UPT 3.5.9	On tops and sides of inverted beams	m2	30,00	R	R
UPT 3.5.10	On bottoms and sides of floor ducts, channels, etc	m2	30,00	R	R
UPT 3.5.11	On bottoms and sides of box gutters	m2	30,00	R	R
UPT 3.5.12	On bottoms and sides of plant boxes	m2	10,00	R	R
UPT 3.5.13	Sealing edges to brickwork or concrete	m	10,00	R	R
UPT 3.5.14	Sealing edges to brickwork or concrete including trowelled mastic bead	m	10,00	R	R
UPT 3.5.15	Additional membrane 300mm girth at internal and external angles	m	10,00	R	R
UPT 3.5.16	Dressing and sealing around pipe not exceeding 200mm external diameter, including additional membrane, gussets, collars, etc	No	10,00	R	R
UPT 3.5.17	On internal surfaces of 300 x 300 x 300mm deep sump, catchpit, etc	No	6,00	R	R
UPT 3.5.18	On concrete flat roofs including all turn-ups and turndowns and sealing edges where required.	m2	70,00	R	R
	PROTECTIVE STONE DRESSING				
	<u>19mm Crushed stone dressing evenly spread with larger stones around outlets</u>				
UPT 3.5.19	25mm Thick on waterproofing to flat roofs	m2	70,00	R	R
	PROTECTIVE ROOFING PAINT				
	<u>Two coats "Silvakote" or similar approved bituminous aluminium paint</u>				
UPT 3.5.20	On waterproofing to roofs	m2	70,00	R	R
UPT 3.5.21	On inside of existing box gutters	m2	70,00	R	R
	PROTECTIVE ROOFING SHEETING				
	<u>Type 40 bituminous fibreglass felt laid loose</u>				
UPT 3.5.22	On waterproofing to roofs	m2	17,00	R	R
	WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC				
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
UPT 3.5.23	6 x 10mm In saw cut joints in floors	m	10,00	R	R
UPT 3.5.24	6 x 10mm In expansion joints in tiled walls etc	m	10,00	R	R
UPT 3.5.25	10 x 15mm In expansion joints in tiled floors etc	m	10,00	R	R
UPT 3.5.26	10 x 15mm In expansion joints in floors including raking out expansion joint filler as necessary	m	10,00	R	R

[illegible]

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>				
UPT 3.6.1	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	10,00	R	R
UPT 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>				
UPT 3.6.3	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	10,00	R	R
UPT 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>				
UPT 3.6.5	Provide the prime cost of R 3000.00 per door leaf & hinges for single door openings	No	15,00	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				
UPT	3.7.1	Ceilings installed using propriety framing system all according to manufacturers specifications	m2	81,00	R	R
UPT	3.7.2	Vertical ceilings installed using propriety framing system all according to manufacturers specifications	m2	70,00	R	R
UPT	3.7.3	Horizontal bulkheads installed using propriety framing system all according to manufacturers specifications	m2	70,00	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>				
UPT	3.7.4	Ceilings suspended below soffits	m2	90,00	R	R
UPT	3.7.5	Horizontal bulkheads suspended below concrete soffits	m2	70,00	R	R
UPT	3.7.6	Sloping bulkheads suspended below concrete soffits	m2	70,00	R	R
UPT	3.7.7	Extra over ceiling for opening for sprinkler head	No	10,00	R	R
UPT	3.7.8	Extra over ceiling for opening for down lighter	No	10,00	R	R
UPT	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>				
UPT	3.7.10	Ceilings suspended below soffits	m2	90,00	R	R
UPT	3.7.11	Horizontal bulkheads suspended below concrete soffits	m2	70,00	R	R
UPT	3.7.12	Sloping bulkheads suspended below concrete soffits	m2	70,00	R	R
UPT	3.7.13	Extra over ceiling for opening for sprinkler head	No	10,00	R	R
UPT	3.7.14	Extra over ceiling for opening for down lighter	No	10,00	R	R
UPT	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>				
UPT	3.7.16	Pre-painted / coated cornices plugged	m	40,00	R	R
		Shadowline to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for shadowline trim</u>				
UPT	3.7.17	Pre-painted / coated shadowline trim fixed	m	40,00	R	R
		Insulation				
UPT	3.7.18	Isotherm 100mm thick polyester thermal ceiling insulation laid on ceilings (measured nett)	m2	140,00	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>				
UPT	3.7.19	Partitioning up to 2 600mm high with bottom and top tracks plugged	m2	100,00	R	R
UPT	3.7.20	Partitioning up to 2 900mm high with bottom and top tracks plugged	m2	90,00	R	R
UPT	3.7.21	Partitioning up to 3 500mm high with bottom and top tracks plugged	m2	70,00	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>				
UPT 3.8.1	On floors	m2	140,00	R	R
UPT 3.8.2	On treads and risers of stairs	m2	40,00	R	R
	<u>High traffic epoxy floor paint 2.5 to 3mm thick as per specialists specifications</u>				
UPT 3.8.3	On floors	m2	140,00	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>				
UPT 3.8.4	On floors	m2	140,00	R	R
UPT 3.8.5	On treads and risers of stairs	m2	40,00	R	R
	Materials & Plant				
UPT 3.8.6	Provision for Sundry Materials & Plant	Prov	1,00	R	9 000,00
UPT 3.8.7	Allow for profit & attendance if required	%		R	9 000,00
	Provisional Sum				
UPT 3.8.8	Sundry Floor Coverings Wall Linings etc Works	Sum	1,00	R	9 000,00
UPT 3.8.9	Allow for profit & attendance if required	%		R	9 000,00
	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>				
UPT 3.9.1	On single doors	No	60,00	R	R
UPT 3.9.2	On double doors	No	30,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		HINGES, BOLTS, ETC				
		<u>Hinges</u>				
UPT	3.9.3	Provide the prime cost amount of R350.00 for 100 x 75mm butt hinges (per pair) installed complete	No	110,00	R	R
		PUSH PLATES AND KICKING PLATES				
		<u>Push plates, kick plates etc</u>				
UPT	3.9.4	Provide the prime cost amount of R750.00 each for Push Plates & Kick Plates installed complete	No	30,00	R	R
		DOOR CLOSERS				
		<u>Door Closers</u>				
UPT	3.9.5	Provide the prime cost amount of R3000.00 each for door closers installed complete	No	60,00	R	R
		<u>Panic Bolts etc</u>				
UPT	3.9.6	Provide the prime cost amount of R2500.00 each for panic bolts for single doors installed complete	No	9,00	R	R
UPT	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>				
UPT	3.9.8	Provide the prime cost amount of R1000.00 each for door handles installed complete	No	50,00	R	R
		CATCHES, CABIN HOOKS, ETC				
		<u>Cabin Hooks etc</u>				
UPT	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>				
UPT	3.9.10	Provide the prime cost amount of R1000.00 each for toilet roll holder plugged to brickwork.	No	10,00	R	R
		<u>Soap Dispenser</u>				
UPT	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>				
UPT	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					
		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>					
UPT	3.10.1	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	70,00	R		R
UPT	3.10.2	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	40,00	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>					
UPT	3.10.3	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	70,00	R		R
UPT	3.10.4	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	40,00	R		R
		Materials & Plant					
UPT	3.10.5	Provision for Sundry Materials & Plant	Prov	1,00	R	115 500,00	R 115 500,00
UPT	3.10.6	Allow for profit & attendance if required	%		R	115 500,00	R
		Provisional Sum					
UPT	3.10.7	Sundry Metalworks	Sum	1,00	R	115 500,00	R 115 500,00
UPT	3.10.8	Mark up provision on sundry Metalworks	%		R	115 500,00	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>				
UPT	3.11.1	25mm Thick on floors and landings	m2	245,00	R	R
UPT	3.11.2	30mm Thick on floors and landings	m2	70,00	R	R
UPT	3.11.3	30mm Thick on floors on waterproofing membrane	m2	60,00	R	R
UPT	3.11.4	Average 30mm thick on floors with upper surface to falls	m2	20,00	R	R
UPT	3.11.5	Average 30mm thick on floors with upper surface to falls and currents	m2	20,00	R	R
UPT	3.11.6	Average 40mm thick on roofs with upper surface to falls	m2	20,00	R	R
UPT	3.11.7	Average 40mm thick on roofs with upper surface to falls and currents	m2	20,00	R	R
UPT	3.11.8	25mm Thick on treads and risers of stairs including reedings	m2	20,00	R	R
UPT	3.11.9	30mm Thick on treads and risers of stairs	m2	20,00	R	R
UPT	3.11.10	30mm Thick on narrow widths not exceeding 300mm wide	m2	20,00	R	R
UPT	3.11.11	Reedings in finish on ramps	m2	20,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT 3.11.12	50 x 50mm Triangular fillets against walls, kerbs, etc	m	20,00	R	R
	<u>Screeds steel trowelled, on concrete</u>				
UPT 3.11.13	25mm Thick on floors and landings	m2	220,00	R	R
UPT 3.11.14	30mm Thick on floors and landings	m2	70,00	R	R
UPT 3.11.15	30mm Thick on floors on waterproofing membrane	m2	60,00	R	R
UPT 3.11.16	Average 30mm thick on floors with upper surface to falls	m2	20,00	R	R
UPT 3.11.17	Average 30mm thick on floors with upper surface to falls and currents	m2	20,00	R	R
UPT 3.11.18	Average 40mm thick on roofs with upper surface to falls	m2	20,00	R	R
UPT 3.11.19	Average 40mm thick on roofs with upper surface to falls and currents	m2	20,00	R	R
UPT 3.11.20	25mm Thick on treads and risers of stairs including reedings	m2	20,00	R	R
UPT 3.11.21	30mm Thick on treads and risers of stairs	m2	20,00	R	R
UPT 3.11.22	30mm Thick on narrow widths not exceeding 300mm wide	m2	20,00	R	R
UPT 3.11.23	Reedings in finish on ramps	m2	20,00	R	R
UPT 3.11.24	50 x 50mm Triangular fillets against walls, kerbs, etc	m2	20,00	R	R
	GRANOLITHIC				
	<u>Untinted granolithic on concrete</u>				
UPT 3.11.25	25mm Thick on floors and landings	m2	140,00	R	R
UPT 3.11.26	30mm Thick on floors and landings	m2	70,00	R	R
UPT 3.11.27	50mm Thick on floors and landings	m2	60,00	R	R
UPT 3.11.28	Average 30mm thick on floors with upper surface to falls	m2	20,00	R	R
UPT 3.11.29	Average 30mm thick on floors with upper surface to falls and currents	m2	20,00	R	R
UPT 3.11.30	Average 40mm thick on roofs with upper surface to falls	m2	20,00	R	R
UPT 3.11.31	Average 40mm thick on roofs with upper surface to falls and currents	m2	20,00	R	R
UPT 3.11.32	25mm Thick on treads and risers of stairs including reedings	m2	20,00	R	R
UPT 3.11.33	30mm Thick on treads and risers of stairs	m2	20,00	R	R
UPT 3.11.34	30mm Thick on narrow widths not exceeding 300mm wide	m2	20,00	R	R
UPT 3.11.35	Reedings in finish on ramps	m2	20,00	R	R
UPT 3.11.36	Skirtings 100mm high	m	20,00	R	R
UPT 3.11.37	Skirtings 100mm high stepped over treads and risers	m	20,00	R	R
	EXTERNAL PLASTER				
	Class I cement plaster on brickwork				
UPT 3.11.38	On walls	m2	330,00	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>				
UPT 3.12.1	On walls	m2	140,00	R	R
UPT 3.12.2	On narrow widths	m2	40,00	R	R
	<u>Provide the prime cost amount of R 500.00 per m2 for porcelain wall tiles fixed with adhesive to:</u>				
UPT 3.12.3	On walls	m2	140,00	R	R
UPT 3.12.4	On narrow widths	m2	40,00	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>				
UPT 3.12.5	On floors	m2	237,00	R	R
UPT 3.12.6	On narrow widths	m2	40,00	R	R
UPT 3.12.7	On floors landings in patterns	m2	70,00	R	R
	<u>Provide the prime cost amount of R 500.00 per m2 for porcelain floor tiles fixed with adhesive to:</u>				
UPT 3.12.8	On floors	m2	220,00	R	R
UPT 3.12.9	On narrow widths	m2	40,00	R	R
UPT 3.12.10	On floors landings in patterns	m2	70,00	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>				
UPT	3.13.1	Single bowl wash trough. Unit to be fixed to the wall with a pair of Stainless Steel wallfixing brackets.	No	10,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
UPT	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>				
UPT	3.13.3	Stainless steel single end bowl sink and drainer set in top of timber / stone counter top (Elsewhere measured).	No	10,00	R	R
		<u>Provide the prime cost amount of R 3200.00 each for wash troughs:</u>				
UPT	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>				
UPT	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>				
UPT	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>				
UPT	3.13.7	Provide the prime cost amount of R 5000.00 each for wall mounted urinals	No	5,00	R	R
		Toilets etc				
UPT	3.13.8	Provide the prime cost amount of R 4000.00 each for toilets installed complete	No	10,00	R	R
UPT	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>				
UPT	3.13.10	40mm Wash trough waste	No	20,00	R	R
		TRAPS ETC				
		PVC				
UPT	3.13.11	Rubber waste reseal "P" 32x40mm (basin)	No	20,00	R	R
		TAPS, VALVES, ETC				

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taps, showers etc				
UPT	3.13.12	Provide the prime cost amount of R 2000.00 each for taps and sink mixers	No	10,00	R	R
UPT	3.13.13	Provide the prime cost amount of R 1500.00 each for shower heads	No	5,00	R	R
UPT	3.13.14	Provide the prime cost amount of R 2000.00 each for shower mixers	No	5,00	R	R
UPT	3.13.15	22mm Brass Non-return valve	No	10,00	R	R
		SANITARY PLUMBING				
		uPVC soil and vent pipes				
UPT	3.13.16	40mm Diameter Pipes	m	30,00	R	R
UPT	3.13.17	50mm Diameter Pipes	m	30,00	R	R
UPT	3.13.18	75mm Diameter Pipes	m	30,00	R	R
UPT	3.13.19	110mm Diameter Pipes	m	30,00	R	R
		Extra over uPVC soil and vent pipes for fittings				
UPT	3.13.20	40mm Bend	No	10,00	R	R
UPT	3.13.21	40mm Inspection bend	No	10,00	R	R
UPT	3.13.22	40mm Junction	No	10,00	R	R
UPT	3.13.23	50mm BSP adaptor	No	10,00	R	R
UPT	3.13.24	50mm Bend	No	10,00	R	R
UPT	3.13.25	50mm Inspection bend	No	10,00	R	R
UPT	3.13.26	50mm Junction	No	10,00	R	R
UPT	3.13.27	50mm Access bend	No	10,00	R	R
UPT	3.13.28	50mm vent valve	No	10,00	R	R
UPT	3.13.29	50mm Two way vent valve	No	10,00	R	R
UPT	3.13.30	50mm Inspection junction	No	10,00	R	R
UPT	3.13.31	75mm Bend	No	10,00	R	R
UPT	3.13.32	75mm Inspection bend	No	10,00	R	R
UPT	3.13.33	75mm Junction	No	10,00	R	R
UPT	3.13.34	75mm Inspection junction	No	10,00	R	R
UPT	3.13.35	75mm Reducing junction	No	10,00	R	R
UPT	3.13.36	75mm Inspection reducing junction	No	10,00	R	R
UPT	3.13.37	75mm Reducer	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	3.13.38	110mm Bend	No	10,00	R	R
UPT	3.13.39	110mm Inspection bend	No	10,00	R	R
UPT	3.13.40	110mm Junction	No	10,00	R	R
UPT	3.13.41	110mm Inspection junction	No	10,00	R	R
UPT	3.13.42	110mm Reducing junction	No	10,00	R	R
UPT	3.13.43	110mm Inspection reducing junction	No	10,00	R	R
UPT	3.13.44	110mm Reducer	No	10,00	R	R
UPT	3.13.45	110mm Pan connector	No	10,00	R	R
UPT	3.13.46	110mm Two way vent valve	No	10,00	R	R
		Testing				
UPT	3.13.47	Testing waste pipe system	Item	1,00	R	R
		WATER SUPPLIES				
		Class 0 copper pipes with brass compression couplings				
UPT	3.13.48	15mm Pipes	m	30,00	R	R
UPT	3.13.49	15mm Pipes chased into brickwork or concrete	m	30,00	R	R
UPT	3.13.50	22mm Pipes	m	30,00	R	R
UPT	3.13.51	22mm Pipes chased into brickwork or concrete	m	30,00	R	R
UPT	3.13.52	28mm Pipes	m	30,00	R	R
UPT	3.13.53	28mm Pipes chased into brickwork or concrete	m	30,00	R	R
UPT	3.13.54	35mm Pipes	m	30,00	R	R
UPT	3.13.55	35mm Pipes chased into brickwork or concrete	m	30,00	R	R
UPT	3.13.56	42mm Pipes	m	30,00	R	R
UPT	3.13.57	54mm Pipes	m	30,00	R	R
UPT	3.13.58	67mm Pipes	m	30,00	R	R
UPT	3.13.59	76mm Pipes	m	30,00	R	R
UPT	3.13.60	108mm Pipes	m	30,00	R	R
		Extra over Class 0 copper pipes for capillary fittings				
UPT	3.13.61	15mm Fittings	No	10,00	R	R
UPT	3.13.62	22mm Fittings	No	10,00	R	R
UPT	3.13.63	28mm Fittings	No	10,00	R	R
UPT	3.13.64	35mm Fittings	No	10,00	R	R
UPT	3.13.65	42mm Fittings	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	3.13.66	54mm Fittings	No	10,00	R	R
UPT	3.13.67	67mm Fittings	No	10,00	R	R
UPT	3.13.68	76mm Fittings	No	10,00	R	R
UPT	3.13.69	108mm Fittings	No	10,00	R	R
		Extra over Class 0 copper pipes for brass compression fittings				
UPT	3.13.70	15mm Fittings	No	10,00	R	R
UPT	3.13.71	22mm Fittings	No	10,00	R	R
UPT	3.13.72	28mm Fittings	No	10,00	R	R
UPT	3.13.73	35mm Fittings	No	10,00	R	R
UPT	3.13.74	42mm Fittings	No	10,00	R	R
UPT	3.13.75	54mm Fittings	No	10,00	R	R
UPT	3.13.76	67mm Fittings	No	10,00	R	R
UPT	3.13.77	76mm Fittings	No	10,00	R	R
UPT	3.13.78	108mm Fittings	No	10,00	R	R
		Class 12.5 "HDPE" Pipes				
UPT	3.13.79	20mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	30,00	R	R
UPT	3.13.80	32mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	30,00	R	R
UPT	3.13.81	40mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	30,00	R	R
UPT	3.13.82	50mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	30,00	R	R
UPT	3.13.83	75mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	30,00	R	R
UPT	3.13.84	90mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	30,00	R	R
UPT	3.13.85	110mm Diameter pipe laid in trenches not exceeding 1m deep including excavation, bedding, backfilling, compaction and disposal of surplus material	m	30,00	R	R
		Extra over "HDPE" for fittings				
UPT	3.13.86	20mm Diameter Straight Coupling	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	3.13.87	20mm Diameter Reducing Coupling	No	10,00	R	R
UPT	3.13.88	20mm Diameter Equal Tee	No	10,00	R	R
UPT	3.13.89	20mm Diameter Male Adaptor	No	10,00	R	R
UPT	3.13.90	20mm Diameter 90 Degree Elbow	No	10,00	R	R
UPT	3.13.91	40mm Diameter Straight Coupling	No	10,00	R	R
UPT	3.13.92	40mm Diameter Reducing Coupling	No	10,00	R	R
UPT	3.13.93	40mm Diameter Equal Tee	No	10,00	R	R
UPT	3.13.94	40mm Diameter Male Adaptor	No	10,00	R	R
UPT	3.13.95	40mm Diameter 90 Degree Elbow	No	10,00	R	R
UPT	3.13.96	50mm Diameter Straight Coupling	No	10,00	R	R
UPT	3.13.97	50mm Diameter Reducing Coupling	No	10,00	R	R
UPT	3.13.98	50mm Diameter Equal Tee	No	10,00	R	R
UPT	3.13.99	50mm Diameter Male Adaptor	No	10,00	R	R
UPT	3.13.100	50mm Diameter 90 Degree Elbow	No	10,00	R	R
UPT	3.13.101	75mm Diameter Straight Coupling	No	10,00	R	R
UPT	3.13.102	75mm Diameter Reducing Coupling	No	10,00	R	R
UPT	3.13.103	75mm Diameter Equal Tee	No	10,00	R	R
UPT	3.13.104	75mm Diameter Male Adaptor	No	10,00	R	R
UPT	3.13.105	75mm Diameter 90 Degree Elbow	No	10,00	R	R
UPT	3.13.106	90mm Diameter Straight Coupling	No	10,00	R	R
UPT	3.13.107	90mm Diameter Reducing Coupling	No	10,00	R	R
UPT	3.13.108	90mm Diameter Equal Tee	No	10,00	R	R
UPT	3.13.109	90mm Diameter Male Adaptor	No	10,00	R	R
UPT	3.13.110	90mm Diameter 90 Degree Elbow	No	10,00	R	R
UPT	3.13.111	110mm Diameter Straight Coupling	No	10,00	R	R
UPT	3.13.112	110mm Diameter Reducing Coupling	No	10,00	R	R
UPT	3.13.113	110mm Diameter Equal Tee	No	10,00	R	R
UPT	3.13.114	110mm Diameter Male Adaptor	No	9,00	R	R
UPT	3.13.115	110mm Diameter 90 Degree Elbow	No	9,00	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>				
UPT	3.14.1	On internal walls	m2	400,00	R	R
UPT	3.14.2	On external walls	m2	400,00	R	R
UPT	3.14.3	On ceilings and beams	m2	400,00	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>				
UPT	3.14.4	On partitions	m2	270,00	R	R
UPT	3.14.5	On ceilings and cornices	m2	270,00	R	R
UPT	3.14.6	On fascias and barge boards	m2	70,00	R	R
		<u>Apply one coat Professional Alkali resistant plaster primer and three coats Paint (Professional Superior Matt Paint)</u>				
UPT	3.14.7	On Rhinolite walls	m2	220,00	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>				
UPT	3.14.8	On doors	m2	70,00	R	R
UPT	3.14.9	On door frames	m2	70,00	R	R
UPT	3.14.10	On windows	m2	70,00	R	R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>				
UPT	3.14.11	On palisade fencing	m2	140,00	R	R
UPT	3.14.12	On steel barriers	m2	70,00	R	R
UPT	3.14.13	On balustrades	m2	70,00	R	R
UPT	3.14.14	On gates, grilles, burglar screens etc.	m2	70,00	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>				
UPT	3.14.15	On boarded panelling	m2	70,00	R	R
UPT	3.14.16	On boarded ceilings	m2	70,00	R	R
UPT	3.14.17	On doors	m2	70,00	R	R
UPT	3.14.18	On door frames	m2	70,00	R	R
UPT	3.14.19	On skirtings	m	70,00	R	R
		<u>Prime bare areas with "Wood Primer" and apply two coats "Timber Varnish" (High gloss wood varnish)</u>				
UPT	3.14.20	On boarded panelling	m2	70,00	R	R
UPT	3.14.21	On boarded ceilings	m2	70,00	R	R
UPT	3.14.22	On doors	m2	70,00	R	R
UPT	3.14.23	On door frames	m2	70,00	R	R
UPT	3.14.24	On skirtings	m	70,00	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>				
UPT	3.14.25	On metal roof sheets	m2	360,00	R	R
UPT	3.14.26	To cladding sheets	m2	140,00	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>				
UPT	3.14.27	On internal walls	m2	290,00	R	R
UPT	3.14.28	On external walls	m2	290,00	R	R
UPT	3.14.29	On ceilings and beams	m2	220,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Matt Paint)</u>				
UPT	3.14.30	On partitions	m2	220,00	R	R
UPT	3.14.31	On ceilings and cornices	m2	220,00	R	R
UPT	3.14.32	On fascias and barge boards	m2	70,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
UPT	3.14.33	On Rhinolite walls	m2	140,00	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>					
UPT	3.14.34	Windows and door frames	m2	70,00	R		R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>					
UPT	3.14.35	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat ares)	m2	70,00	R		R
		PAINT ON WOOD					
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
UPT	3.14.36	On general surfaces	m2	70,00	R		R
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
UPT	3.14.37	On boarded panelling	m2	70,00	R		R
UPT	3.14.38	On boarded ceilings	m2	70,00	R		R
UPT	3.14.39	On doors	m2	70,00	R		R
UPT	3.14.40	On door frames	m2	70,00	R		R
UPT	3.14.41	On skirtings	m	70,00	R		R
		<u>Prepare and apply two coats "Timber Varnish" (High gloss wood varnish)</u>					
UPT	3.14.42	On boarded panelling	m2	70,00	R		R
UPT	3.14.43	On boarded ceilings	m2	70,00	R		R
UPT	3.14.44	On doors	m2	70,00	R		R
UPT	3.14.45	On door frames	m2	70,00	R		R
UPT	3.14.46	On skirtings	m	70,00	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>					
UPT	3.14.47	On metal roof sheets	m2	345,00	R		R
UPT	3.14.48	To cladding sheets	m2	70,00	R		R
		Materials & Plant					
UPT	3.14.49	Provision for Sundry Materials & Plant	Prov	1,00	R	22 500,00	R 22 500,00
UPT	3.14.50	Allow for profit & attendance if required	%		R	22 500,00	R
		Provisional Sum					
UPT	3.14.51	Sundry Paint Works	Sum	1,00	R	22 500,00	R 22 500,00
UPT	3.14.52	Allow for profit & attendance if required	%		R	22 500,00	R

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				CLUSTER 2		
				UPT		
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				
UPT	4.1.1	Trim and level terraced area and compact to set levels.	m2	220,00	R	R
		Digging up topsoil				
UPT	4.1.2	Digging up topsoil to an average depth of 150mm and preserving for use as filling	m3	40,00	R	R
		BULK EXCAVATION, FILLING ETC				
UPT	4.1.3	Open face excavation in earth over sloping site	m3	30,00	R	R
		Excavation				
UPT	4.1.4	Excavate in earth not exceeding 1000mm deep	m3	10,00	R	R
		Keeping excavations free of water				
UPT	4.1.5	Keeping excavations free of water	Item	1,00	R	R
		Extra over all excavations for carting away				
UPT	4.1.6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	30,00	R	R
		LAYER WORK				
		<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
UPT	4.1.7	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
		<u>Filling supplied by the contractor under parking areas, roadways, etc</u>				
UPT	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	70,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
UPT	4.1.9	G8 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.10	G7 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.11	G7 Gravel-soil material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.12	Extra over for G7 stabilised with Portland cement compacted to 95% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.13	Subbase course of G6 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.14	G5 Natural gravel material compacted in 150mm layers to 93% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.15	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.16	Base course of G4 natural gravel material in 150mm layers compacted to 98% Mod AASHTO density	m3	10,00	R	R
UPT	4.1.17	G2 base compacted to 100% Mod AASHTO density	m3	10,00	R	R
		Compaction of surfaces				
UPT	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	220,00	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>				
UPT	4.1.19	Under roads, paving etc.	m2	220,00	R	R
		TESTS				
UPT	4.1.20	<u>Prescribed tests to determine degree of compaction or similar approved properties of ground or filling</u>				
UPT	4.1.21	"Modified AASHTO Density" test	No	1,00	R	R
UPT	4.1.22	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	1,00	R	R
UPT	4.1.23	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	1,00	R	R
UPT	4.1.24	Atterberg limits test in accordance with methods A2 to A4 of TMH1	No	1,00	R	R
UPT	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>				
UPT	4.1.26	Paving to roadwork and parking to falls	m2	156,00	R	R
UPT	4.1.27	Extra over for curved edges	m	70,00	R	R
		Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing				
		KERBS ETC				
UPT	4.1.28	Fig.1 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	4.1.29	Fig.2 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	4.1.30	Fig.3 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	4.1.31	Fig.4 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	4.1.32	Fig.5 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	4.1.33	Fig.6 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	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
UPT	4.1.35	Fig.7 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	4.1.36	Fig.8 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	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
UPT	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
UPT	4.1.39	Fig.12 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	4.1.40	Fig.14 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
UPT	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>				
UPT	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				
UPT	4.2.1	110mm Diameter pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	40,00	R	R
		Extra over for uPVC fittings				
UPT	4.2.2	110mm Bend	No	10,00	R	R
UPT	4.2.3	110mm Junction	No	10,00	R	R
UPT	4.2.4	110mm Access junction	No	10,00	R	R
UPT	4.2.5	110mm Rodding Eye	No	10,00	R	R
		uPVC pipe Class 34 HD				
UPT	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	28,00	R	R
		Extra over for uPVC fittings				
UPT	4.2.7	160mm Bend	No	10,00	R	R
UPT	4.2.8	160mm Junction	No	10,00	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>				
UPT	4.3.1	Over 0m and up to 1.0m	No	1,00	R	R
UPT	4.3.2	Over 1.0m and up to 2.0m	No	1,00	R	R
UPT	4.3.3	Over 2m and up to 3m	No	1,00	R	R
UPT	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>				
UPT	4.3.5	Over 0m and up to 1.0m	No	1,00	R	R
UPT	4.3.6	Over 1.0m and up to 2.0m	No	1,00	R	R
UPT	4.3.7	Over 2m and up to 3m	No	1,00	R	R
UPT	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>				
UPT	4.3.9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	25,00	R	R
UPT	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>				
UPT	4.3.11	110mm Bend	No	6,00	R	R
UPT	4.3.12	110mm Junction	No	6,00	R	R
UPT	4.3.13	110mm Access bend	No	6,00	R	R
UPT	4.3.14	110mm Access junction	No	6,00	R	R
UPT	4.3.15	110mm Rodding eye	No	6,00	R	R
		Class 34 uPVC pipes				
UPT	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	20,00	R	R
		Extra over items for uPVC fittings				
UPT	4.3.17	160 x 110 mm Diameter Y junction	No	6,00	R	R
UPT	4.3.18	160 x 160 mm Diameter Y junction	No	6,00	R	R
		Channel bends				
UPT	4.3.19	160mm Diameter 45 degree bend	No	6,00	R	R
UPT	4.3.20	160mm Diameter 90 degree bend	No	6,00	R	R
		Sockets				
UPT	4.3.21	160mm Diameter	No	6,00	R	R
		End caps				
UPT	4.3.22	160mm Diameter	No	6,00	R	R
		SUNDRIES				
UPT	4.3.23	Excavation in earth for pipe trenches, chambers, etc	m3	10,00	R	R
UPT	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
UPT	4.3.25	Risk of collapse to sides of trenches	m2	20,00	R	R
UPT	4.3.26	Extra over backfilling to drain trenches, chambers, etc for Class B bedding cradle of compacted selected granular material	m3	7,00	R	R
UPT	4.3.27	25Mpa unreinforced concrete encasing to horizontal pipes laid in trenches N.E 1m deep	m3	2,00	R	R
		WATER				

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ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		ROLLER SHUTTERS & HANGAR DOORS				
UPT	5.9	Provide the sum of R156,000.00 for Roller Shutters & Hangar Doors by an approved sub-contractor	Sum	1,00	R 156 000,00	R 156 000,00
UPT	5.10	Allow for profit & attendance if required	%		R 156 000,00	R
		GENERAL GLAZING				
UPT	5.11	Provide the sum of R78,000.00 for General Glazing by an approved sub-contractor	Sum	1,00	R 78 000,00	R 78 000,00
UPT	5.12	Allow for profit & attendance if required	%		R 78 000,00	R
		ALUMINIUM FACADE CLADDING, SHOPFRONTS, WINDOWS AND DOORS				
UPT	5.13	Provide the sum of R156,000.00 for aluminium façade cladding, shopfronts, window and door installation by an approved sub-contractor	Sum	1,00	R 156 000,00	R 156 000,00
UPT	5.14	Allow for profit & attendance if required	%		R 156 000,00	R
		SIGNAGE				
UPT	5.15	Provide the sum of R78,000.00 for corporate and directional signage by an approved subcontractor	Sum	1,00	R 78 000,00	R 78 000,00
UPT	5.16	Allow for profit & attendance if required	%		R 78 000,00	R
		BLINDS, FURNITURE & FITTINGS				
UPT	5.17	Provide the sum of R117,000.00 for blinds, furniture and fittings by an approved subcontractor	Sum	1,00	R 117 000,00	R 117 000,00
UPT	5.18	Allow for profit & attendance if required	%		R 117 000,00	R
		TENANT TEMPORARY RELOCATION & REINSTATEMENT				
UPT	5.19	Provide the sum of R 78,000.00 for tenant temporary relocation and reinstatement works by an approved subcontractor	Sum	1,00	R 78 000,00	R 78 000,00
UPT	5.20	Allow for profit & attendance if required	%		R 78 000,00	R
		ASBESTOS REMOVAL				
UPT	5.21	Provide the sum of R78,000.00 for the Removal & Safe Disposal of Asbestos by an approved subcontractor	Sum	1,00	R 78 000,00	R 78 000,00
UPT	5.22	Allow for profit & attendance if required	%		R 78 000,00	R
		GUTTERS & RAINWATER DISPOSAL SYSTEMS				
UPT	5.23	Provide the sum of R156,000.00 for Gutters & Rainwater Disposal Systems by an approved subcontractor	Sum	1,00	R 156 000,00	R 156 000,00
UPT	5.24	Allow for profit & attendance if required	%		R 156 000,00	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS					
		GENERAL ELECTRICAL INSTALLATIONS					
UPT	5.25	Provide the sum of R469,000.0 for General Electical Installations by an approved subcontractor	Prov	1,00	R	469 000,00	R 469 000,00
UPT	5.26	Allow for profit & attendance if required	%		R	469 000,00	R
		SUB - STATION INSTALLATIONS					
UPT	5.27	Provide the sum of R78,000.00 for Sub Station Installations by an approved subcontractor	Sum	1,00	R	78 000,00	R 78 000,00
UPT	5.28	Allow for profit & attendance if required	%		R	78 000,00	R
		UPS INSTALLATIONS					
UPT	5.29	Provide the sum of R78,000.00 for UPS Installations by an approved subcontractor	Sum	1,00	R	78 000,00	R 78 000,00
UPT	5.30	Allow for profit & attendance if required	%		R	78 000,00	R
		GENERATOR INSTALLATION					
UPT	5.31	Provide the sum of R78,000.00 for the Generator Installation by an approved sub-contractor	Sum	1,00	R	78 000,00	R 78 000,00
UPT	5.32	Allow for profit & attendance if required	%		R	78 000,00	R
		FIRE DETECTION & FIRE STOPPING INSTALLATION					
UPT	5.33	Provide the sum of R117,000.00 for the Fire Detection & Fire Stopping Installation by an approved sub-contractor	Sum	1,00	R	117 000,00	R 117 000,00
UPT	5.34	Allow for profit & attendance if required	%		R	117 000,00	R
		ACCESS CONTROL					
UPT	5.35	Provide the sum of R39,000.00 for the Access Control System installation by an approved sub-contractor	Sum	1,00	R	39 000,00	R 39 000,00
UPT	5.36	Allow for profit & attendance if required	%		R	39 000,00	R
		CCTV INSTALLATION					
UPT	5.37	Provide the sum of R39,000.00 for CCTV installation by an approved sub-contractor	Sum	1,00	R	39 000,00	R 39 000,00
UPT	5.38	Allow for profit & attendance if required	%		R	39 000,00	R
		INTERNET AND TELECOMMUNICATION INSTALLATION					
UPT	5.39	Provide the sum of R78,000.00 for the internet and telecommunication installation by an approved subcontractor	Sum	1,00	R	78 000,00	R 78 000,00
UPT	5.40	Allow for profit & attendance if required	%		R	78 000,00	R

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				CLUSTER 2		
				UPT		
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				
UPT	6.1	General building / building rubble waste to landfill	ton	40,00	R	R
		RECYCLING / REPURPOSING RETURN				
UPT	6.2	Glass	Kg	140,00	(-R	(-R
UPT	6.3	Plastics	Kg	140,00	(-R	(-R
UPT	6.4	Steel	Kg	140,00	(-R	(-R
UPT	6.5	Stainless Steel	Kg	140,00	(-R	(-R
UPT	6.6	Copper	Kg	140,00	(-R	(-R
UPT	6.7	Aluminium	Kg	140,00	(-R	(-R
UPT	6.8	Brass	Kg	140,00	(-R	(-R
UPT	6.9	Iron	Kg	140,00	(-R	(-R

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GEORGE AIRPORT - GRJ

				CLUSTER 2		
				GRJ		
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				
GRJ	1.1	General Insurance Requirement (Sureties, guarantees, bonds, workman's compensation etc)	Sum	1,00	R	R
GRJ	1.2	Contract works insurance	Sum	1,00	R	R
GRJ	1.3	Public liability insurance	Sum	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
GRJ	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>					
GRJ	1.5	Offices (Accommodates up to 5 staff x 1 off)	month	12,00	R		R
GRJ	1.6	Storage sheds (12m x 2.4m x 1 off - Includes Delivery & Removal)	month	12,00	R		R
GRJ	1.7	Ablution & Latrine facilities (5 x Male & 3 x Urinal & 3 x Female & 1 x Paraplegic & 2 x Standalone Units)	month	12,00	R		R
GRJ	1.8	Electric Power & Lighting	month	12,00	R		R
GRJ	1.9	Water supplies, electric power and communications	month	12,00	R		R
		Supervision					
		<u>Supervisor/Foreman</u>					
GRJ	1.10	Site Supervision for the duration of the contract (x 1 Resource)	month	12,00	R		R
		<u>Safety Management</u>					
GRJ	1.11	Provision of full time Construction Site Safety Officer (x 1 Resource)	month	12,00	R		R
GRJ	1.12	Compliance with the Occupational Health and Safety Act (OHSA) and Regulations (including the Construction Regulations, 2014)	month	12,00	R		R
GRJ	1.13	Site Security	month	12,00	R		R
GRJ	1.14	Signage for the site	month	12,00	R		R
GRJ	1.15	Other time related obligations	month	12,00	R		R
		VALUE RELATED ITEMS					
GRJ	1.16	Contractual requirements	Sum	1,00	R		R
GRJ	1.17	Provision for Specialised PPE Requirements	Prov	1,00	R	23 858,92	R 23 858,92
GRJ	1.18	Allow for profit & attendance if required	%		R	23 858,92	R
GRJ	1.19	Provision for Location and Protection of Existing Underground Services	Prov	1,00	R	14 315,35	R 14 315,35
GRJ	1.20	Allow for profit & attendance if required	%		R	14 315,35	R
GRJ	1.21	Provision for Compliance with Environmental requirements	Prov	1,00	R	14 315,35	R 14 315,35
GRJ	1.22	Allow for profit & attendance if required	%		R	14 315,35	R
GRJ	1.23	Provision for ACSA Training and Airports Permits (ACSA Issue)	Prov	1,00	R	47 717,84	R 47 717,84
GRJ	1.24	Allow for profit & attendance if required	%		R	47 717,84	R
		Materials & Plant					
GRJ	1.25	Provision for Sundry Materials & Plant	Prov	1,00	R	13 600,00	R 13 600,00
GRJ	1.26	Allow for profit & attendance if required	%		R	13 600,00	R
		Provisional Sum					
GRJ	1.27	Sundry preliminary requirements	Prov	1,00	R	13 600,00	R 13 600,00
GRJ	1.28	Allow for profit & attendance if required	%		R	13 600,00	R

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				CLUSTER 2		
				GRJ		
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)				
GRJ	2.1	Normal Hours	Man Hours	50,00	R	R
GRJ	2.2	After Hours	Man Hours	30,00	R	R
GRJ	2.3	Sundays & Public Holidays	Man Hours	10,00	R	R
		Additional Supervisor / Foreman (Civil Works)				
GRJ	2.4	Normal Hours	Man Hours	50,00	R	R
GRJ	2.5	After Hours	Man Hours	30,00	R	R
GRJ	2.6	Sundays & Public Holidays	Man Hours	10,00	R	R
		Handyman				
GRJ	2.7	Normal Hours	Man Hours	50,00	R	R
GRJ	2.8	After Hours	Man Hours	30,00	R	R
GRJ	2.9	Sundays & Public Holidays	Man Hours	10,00	R	R
		Brick Layer				
GRJ	2.10	Normal Hours	Man Hours	50,00	R	R
GRJ	2.11	After Hours	Man Hours	30,00	R	R
GRJ	2.12	Sundays & Public Holidays	Man Hours	10,00	R	R
		Carpenter				
GRJ	2.13	Normal Hours	Man Hours	50,00	R	R
GRJ	2.14	After Hours	Man Hours	30,00	R	R
GRJ	2.15	Sundays & Public Holidays	Man Hours	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Tiler				
GRJ	2.16	Normal Hours	Man Hours	50,00	R	R
GRJ	2.17	After Hours	Man Hours	30,00	R	R
GRJ	2.18	Sundays & Public Holidays	Man Hours	10,00	R	R
						R -
		Plasterer				
GRJ	2.19	Normal Hours	Man Hours	50,00	R	R
GRJ	2.20	After Hours	Man Hours	30,00	R	R
GRJ	2.21	Sundays & Public Holidays	Man Hours	10,00	R	R
		Painter				
GRJ	2.22	Normal Hours	Man Hours	50,00	R	R
GRJ	2.23	After Hours	Man Hours	30,00	R	R
GRJ	2.24	Sundays & Public Holidays	Man Hours	10,00	R	R
		Welder				
GRJ	2.25	Normal Hours	Man Hours	50,00	R	R
GRJ	2.26	After Hours	Man Hours	30,00	R	R
GRJ	2.27	Sundays & Public Holidays	Man Hours	10,00	R	R
		General Assistant				
GRJ	2.28	Normal Hours	Man Hours	250,00	R	R
GRJ	2.29	After Hours	Man Hours	30,00	R	R
GRJ	2.30	Sundays & Public Holidays	Man Hours	20,00	R	R
		Shutterhand / Formwork Specialist Installer				
GRJ	2.31	Normal Hours	Man Hours	50,00	R	R
GRJ	2.32	After Hours	Man Hours	30,00	R	R
GRJ	2.33	Sundays & Public Holidays	Man Hours	10,00	R	R
		Waterproofing Technician / Specialist Installer				
GRJ	2.34	Normal Hours	Man Hours	50,00	R	R
GRJ	2.35	After Hours	Man Hours	30,00	R	R
GRJ	2.36	Sundays & Public Holidays	Man Hours	10,00	R	R
		Ceiling & Partitions Specialist Installer				
GRJ	2.37	Normal Hours	Man Hours	50,00	R	R
GRJ	2.38	After Hours	Man Hours	30,00	R	R
GRJ	2.39	Sundays & Public Holidays	Man Hours	10,00	R	R

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				CLUSTER 2		
				GRJ		
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				
GRJ	3.1.1	Temporary hoarding of galvanised diamond mesh covered with shade cloth 2.7m high and removal later	m	20,00	R	R
GRJ	3.1.2	Extra over for galvanised mild steel double gate and frame 1511 x 2032mm high	No	2,00	R	R
GRJ	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	40,00	R	R
GRJ	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
GRJ	3.1.5	Hoarding between concrete floor and ceiling formed of suitable timber framing with 22mm thick shutter board	m2	10,00	R	R
GRJ	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
GRJ	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.				
GRJ	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.				
GRJ	3.1.9	Concrete Columns, beams and slabs not exceeding 3m high	m3	10,00	R	R
GRJ	3.1.10	Manholes, bases, strip footings etc not exceeding 1.5m deep	m3	10,00	R	R
GRJ	3.1.11	Surface beds not exceeding 100mm thick	m3	10,00	R	R
GRJ	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.				
GRJ	3.1.13	Half brick wall	m2	40,00	R	R
GRJ	3.1.14	One brick wall	m2	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Taking up and removing vinyl floor coverings, tiles, carpets, etc				
GRJ	3.1.15	Ceramic / Porcelain / Marble tiles to floor including preparing floor for new floor covering	m2	120,00	R	R
GRJ	3.1.16	Vinyl / plastic / carpet floor covering including preparing floors for new floor coverings	m2	50,00	R	R
		Hacking up and removing off coverings to walls, columns, partitionwalls etc. including preparing surfaces for new finishes				
GRJ	3.1.17	Tiles from walls, columns	m2	20,00	R	R
GRJ	3.1.18	Wall paper covering from walls, columns etc.	m2	10,00	R	R
		Taking out / off and removing sundry metalwork				
GRJ	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	40,00	R	R
		Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)				
GRJ	3.1.20	Timber single door and steel frame not exceeding 2,5m ²	No	10,00	R	R
GRJ	3.1.21	Timber double door and steel frame exceeding 2,5m ² and not exceeding 5m ²	No	7,00	R	R
GRJ	3.1.22	Timber double door and steel frame exceeding 5m ² and not exceeding 7.5m ²	No	5,00	R	R
GRJ	3.1.23	Glazed aluminium/steel/timber window not exceeding 2,5m ²	No	10,00	R	R
GRJ	3.1.24	Glazed aluminium/steel/timber window exceeding 2,5m ² and not exceeding 5m ²	No	5,00	R	R
GRJ	3.1.25	Glazed aluminium/steel/timber window exceeding 5m ² and not exceeding 7.5m ²	No	4,00	R	R
		Taking down and removing roofs, floors, panelling, ceilings, partitions, etc				
GRJ	3.1.26	Suspended ceilings, including suspension grid, hangers, cornices, etc not exceeding 3.0m high	m2	120,00	R	R
GRJ	3.1.27	Drywall partitions not exceeding 3.0m high, including doors, glazed borrowed lights, etc	m	70,00	R	R
GRJ	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				
GRJ	3.1.29	Skirtings - various widths	m	50,00	R	R
GRJ	3.1.30	Timber sills - various widths	m	10,00	R	R
GRJ	3.1.31	Timber wall mounted cupboard - Measured by surface area covered on the wall	m2	10,00	R	R
GRJ	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
GRJ	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
GRJ	3.1.34	Timber/stone counters	m2	10,00	R	R
		Taking out/off and removing sundry metalwork				
GRJ	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				
GRJ	3.1.36	Not exceeding 100mm thick Screed from floors	m2	100,00	R	R
GRJ	3.1.37	Internal plaster from walls and columns not exceeding 3m high	m2	100,00	R	R
GRJ	3.1.38	Internal plaster from ceilings and beams not exceeding 3m high	m2	100,00	R	R
GRJ	3.1.39	External plaster from walls, columns and beams not exceeding 3m high	m2	100,00	R	R
		POWER WASH ON EXISTING WALLS				
GRJ	3.1.40	Power wash on existing walls (Internal and external walls) as per Employer Agent instruction	m2	120,00	R	R
		Taking down and removing				
GRJ	3.1.41	Mesh fence with steel posts and droppers	m2	240,00	R	R
GRJ	3.1.42	Steel palisade fence with steel posts and droppers	m2	240,00	R	R
GRJ	3.1.43	Concrete palisade fence with concrete posts and droppers	m2	240,00	R	R
GRJ	3.1.44	Security fence with 45 degree barbed wire overhang with posts and droppers	m2	240,00	R	R
GRJ	3.1.45	Half brick boundary or yard wall	m2	60,00	R	R
GRJ	3.1.46	One brick boundary or yard wall	m2	60,00	R	R
GRJ	3.1.47	Clearvu Fence not exceeding 2,0m high with steel posts	m	60,00	R	R
		Lift and removing pre-cast concrete including bedding, etc				
GRJ	3.1.48	60mm Interlocking paving	m2	220,00	R	R
GRJ	3.1.49	80mm Interlocking paving	m2	220,00	R	R
GRJ	3.1.50	50mm Cement or brick paving	m2	220,00	R	R
GRJ	3.1.51	Fig.1 Kerbing	m	40,00	R	R
GRJ	3.1.52	Fig.2 Kerbing	m	40,00	R	R
GRJ	3.1.53	Fig.3 Kerbing	m	40,00	R	R
GRJ	3.1.54	Fig.4 Kerbing	m	40,00	R	R
GRJ	3.1.55	Fig.5 Kerbing	m	40,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ	3.1.56	Fig.6 Kerbing	m	40,00	R	R
GRJ	3.1.57	Fig.6 Kerbing - Mountable	m	40,00	R	R
GRJ	3.1.58	Fig.7 Kerbing	m	40,00	R	R
GRJ	3.1.59	Fig.8 Kerbing	m	40,00	R	R
GRJ	3.1.60	Fig.8b Kerbing - Mountable	m	40,00	R	R
GRJ	3.1.61	Fig.8c Kerbing - Mountable	m	40,00	R	R
GRJ	3.1.62	Fig.12 Kerbing	m	40,00	R	R
GRJ	3.1.63	Fig.14 Kerbing	m	40,00	R	R
GRJ	3.1.64	Fig.16 Kerbing	m	40,00	R	R
		PREPARATORY WORK TO EXISTING SURFACES				
GRJ	3.1.65	Hacking faces of existing concrete columns, beams, etc to receive plaster	m2	10,00	R	R
GRJ	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>				
GRJ	3.1.67	Ends of half brick walls	m	10,00	R	R
GRJ	3.1.68	Ends of one brick walls	m	10,00	R	R
GRJ	3.1.69	Faces of walls where half brick cross walls removed	m	10,00	R	R
GRJ	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				
GRJ	3.1.71	Ceilings in patches	m2	10,00	R	R
GRJ	3.1.72	Ceilings where half brick walls removed	m	10,00	R	R
GRJ	3.1.73	Ceilings where one brick walls removed	m	10,00	R	R
		Making good cement screeds				
GRJ	3.1.74	Not exceeding 100mm Thick on floors in patches	m2	10,00	R	R
GRJ	3.1.75	Floors where half brick walls removed	m	10,00	R	R
GRJ	3.1.76	Floors where one brick walls removed	m	10,00	R	R
		Making good internal cement plaster				
GRJ	3.1.77	Walls in patches	m2	10,00	R	R
GRJ	3.1.78	Concrete ceilings in patches	m2	10,00	R	R
GRJ	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				
GRJ	3.2.1	Stripping average 300mm thick layer of top soil and stockpile on site	m2	190,00	R	R
		EXCAVATION, RISK OF COLLAPSE, FILLING, ETC				
		Excavation in earth not exceeding 2m deep including carting to a stockpile				
GRJ	3.2.2	To trenches	m3	50,00	R	R
GRJ	3.2.3	To holes	m3	5,00	R	R
GRJ	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				
GRJ	3.2.5	To trenches	m3	20,00	R	R
GRJ	3.2.6	To holes	m3	3,00	R	R
GRJ	3.2.7	Reduced levels under floors	m3	10,00	R	R
		EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
		Extra over trench and hole excavations in earth for excavation in				
GRJ	3.2.8	EO: Soft rock	m3	5,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
GRJ	3.2.9	EO: Hard rock	m3	5,00	R		R
		Extra over all excavations for carting away					
GRJ	3.2.10	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	50,00	R		R
		Risk of collapse to sides of excavation n.e 2m deep					
GRJ	3.2.11	To trenches	m2	40,00	R		R
GRJ	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					
GRJ	3.2.13	To trenches	m2	40,00	R		R
GRJ	3.2.14	To holes	m2	10,00	R		R
		Keeping excavations free of water					
GRJ	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					
GRJ	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					
GRJ	3.2.17	Under floors, steps, paving, foundations, manholes etc	m3	20,00	R		R
		Compaction of surfaces					
GRJ	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	100,00	R		R
		Prescribed density tests on filling					
GRJ	3.2.19	"Modified AASHTO Density" test	No	1,00	R		R
GRJ	3.2.20	"Field Density" test, including "Optimum Moisture Content" (four readings per test)	No	1,00	R		R
		SOIL POISONING					
		Soil insecticide					
GRJ	3.2.21	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	50,00	R		R
GRJ	3.2.22	To bottoms and sides of trenches etc	m2	50,00	R		R
		Materials & Plant					
GRJ	3.2.23	Provision for Sundry Materials & Plant	Prov	1,00	R	2 975,00	R 2 975,00
GRJ	3.2.24	Allow for profit & attendance if required	%		R	2 975,00	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				
GRJ 3.3.1	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		20 Mpa/20mm vibrated reinforced concrete				
GRJ	3.3.2	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	9,00	R	R
GRJ	3.3.3	To columns	m3	6,00	R	R
GRJ	3.3.4	To slabs	m3	6,00	R	R
GRJ	3.3.5	To beams	m3	6,00	R	R
GRJ	3.3.6	Walls	m3	6,00	R	R
		25 Mpa/20mm vibrated reinforced concrete				
GRJ	3.3.7	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	6,00	R	R
GRJ	3.3.8	To columns	m3	6,00	R	R
GRJ	3.3.9	To slabs	m3	6,00	R	R
GRJ	3.3.10	To beams	m3	6,00	R	R
GRJ	3.3.11	Walls	m3	6,00	R	R
		30MPa/20mm vibrated reinforced concrete				
GRJ	3.3.12	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	3,00	R	R
GRJ	3.3.13	To columns	m3	3,00	R	R
GRJ	3.3.14	To slabs	m3	3,00	R	R
GRJ	3.3.15	To beams	m3	3,00	R	R
GRJ	3.3.16	Walls	m3	3,00	R	R
		35 Mpa/20mm vibrated reinforced concrete				
GRJ	3.3.17	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	1,00	R	R
GRJ	3.3.18	To columns	m3	1,00	R	R
GRJ	3.3.19	To slabs	m3	1,00	R	R
GRJ	3.3.20	To beams	m3	1,00	R	R
GRJ	3.3.21	Walls	m3	1,00	R	R
		40 Mpa/20mm vibrated reinforced concrete				
GRJ	3.3.22	To strip footings, surface beds, blinding, paving, platforms, steps, bases, kerbing etc	m3	1,00	R	R
GRJ	3.3.23	To columns	m3	1,00	R	R
GRJ	3.3.24	To slabs	m3	1,00	R	R
GRJ	3.3.25	To beams	m3	1,00	R	R
GRJ	3.3.26	Walls	m3	1,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TEST CUBES				
GRJ	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				
GRJ	3.3.28	Surface beds, slabs,beams, walls, paving etc	m2	50,00	R	R
		Finishing top surfaces of concrete smooth with a steel trowel				
GRJ	3.3.29	Surface beds, slabs,beams, walls, paving etc	m2	50,00	R	R
		Finishing top surfaces of concrete smooth with a power float				
GRJ	3.3.30	Surface beds, slabs,beams, walls, paving etc	m2	50,00	R	R
		Scabble existing concrete surfaces, wire brush corroded rebar and apply "Prostruct 616" or similar approved wet to dry concrete adhesive				
GRJ	3.3.31	Side of existing concrete	m2	20,00	R	R
		Finishing top surfaces of concrete with and including a nonslip brushed concrete finish including wave-like lines parallel				
GRJ	3.3.32	To falls	m2	20,00	R	R
		35MPa non-shrink grout				
GRJ	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				
GRJ	3.3.34	40mm Diameter opening	No	7,00	R	R
GRJ	3.3.35	50mm Diameter opening	No	6,00	R	R
GRJ	3.3.36	110mm Diameter opening	No	5,00	R	R
GRJ	3.3.37	200mm Diameter opening	No	4,00	R	R
GRJ	3.3.38	250mm Diameter opening	No	3,00	R	R
GRJ	3.3.39	350mm Diameter opening	No	2,00	R	R
GRJ	3.3.40	450mm Diameter opening	No	1,00	R	R
		Rough formwork to sides				
GRJ	3.3.41	Edges , risers, ends and reveals not exceeding 300 mm high	m	50,00	R	R
GRJ	3.3.42	To ground beams	m2	20,00	R	R
		Smooth formwork to sides including supports etc.				
GRJ	3.3.43	To beams	m2	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ	3.3.44	To columns	m2	20,00	R	R
GRJ	3.3.45	To pits	m2	20,00	R	R
GRJ	3.3.46	To ramps	m2	20,00	R	R
GRJ	3.3.47	To walls	m2	20,00	R	R
		Smooth formwork to soffits				
GRJ	3.3.48	Beams propped up exceeding 3,5m and not exceeding 5m high	m2	20,00	R	R
GRJ	3.3.49	Slab propped up exceeding 3,5m and not exceeding 5m high	m2	50,00	R	R
		Formwork to sloping top surfaces (pitch exceeding 35 degrees)				
GRJ	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				
GRJ	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
GRJ	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				
GRJ	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				
GRJ	3.3.54	25mm Diameter bars	ton	0,25	R	R
GRJ	3.3.55	20mm Diameter bars	ton	0,25	R	R
GRJ	3.3.56	16mm Diameter bars	ton	0,25	R	R
GRJ	3.3.57	12mm Diameter bars	ton	0,25	R	R
GRJ	3.3.58	10mm Diameter bars	ton	0,25	R	R
GRJ	3.3.59	8mm Diameter bars	ton	0,25	R	R
		High tensile steel reinforcement to structural concrete work				
GRJ	3.3.60	25mm Diameter bars	ton	0,25	R	R
GRJ	3.3.61	20mm Diameter bars	ton	0,25	R	R
GRJ	3.3.62	16mm Diameter bars	ton	0,25	R	R
GRJ	3.3.63	12mm Diameter bars	ton	0,25	R	R
GRJ	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>				
GRJ	3.4.1	Piers	m3	3,00	R	R
GRJ	3.4.2	Half brick walls	m2	50,00	R	R
GRJ	3.4.3	One brick walls	m2	70,00	R	R
GRJ	3.4.4	Cavity walls - Made up of Two half brick skins	m2	20,00	R	R
GRJ	3.4.5	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	15,00	R	R
GRJ	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	15,00	R	R
GRJ	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
GRJ	3.4.8	Piers	m3	3,00	R	R
GRJ	3.4.9	Half brick walls	m2	120,00	R	R
GRJ	3.4.10	One brick walls	m2	140,00	R	R
GRJ	3.4.11	Cavity walls - Made up of two half brick skins	m2	70,00	R	R
GRJ	3.4.12	280mm Hollow walls of two half brick skins with cavities filled in with and including 30MPa/20mm concrete	m2	50,00	R	R
GRJ	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	50,00	R	R
GRJ	3.4.14	Cutting toothings and bonding new brickwork to existing	m	50,00	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>				
GRJ	3.4.15	Extra over brickwork for face brickwork in foundation walls, ramp, etc	m2	20,00	R	R
GRJ	3.4.16	Extra over brickwork for face brickwork	m2	30,00	R	R
GRJ	3.4.17	Half brick face brick walls in class II mortar pointed on both sides	m2	30,00	R	R
GRJ	3.4.18	Fair cutting and fitting around pipe not exceeding 100mm external diameter	No	10,00	R	R
GRJ	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				
GRJ	3.4.20	8mm Diameter mild steel bars built in horizontally	ton	0,50	R	R
		Prestressed precast lintels				
GRJ	3.4.21	110 x 75mm Lintels in lengths not exceeding 3m	m	20,00	R	R
GRJ	3.4.22	110 x 75mm Lintels exceeding 3,0m but not exceeding 4,5m	m	10,00	R	R
		Fabric Reinforcement				
GRJ	3.4.23	75mm Galvanised brickforce suitable for half brick walls	m	140,00	R	R
GRJ	3.4.24	150mm Galvanised brickforce suitable for one brick walls	m	140,00	R	R
		Galvanised hoop iron cramps, ties, etc				
GRJ	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				
GRJ	3.4.26	On brick walls	m2	30,00	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				
GRJ	3.5.1	In walls	m2	50,00	R	R
		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
GRJ	3.5.2	Under surface beds, etc	m2	140,00	R	R
		Three coats paint sealer "plascon wallseal" or equal approved without membrane				
GRJ	3.5.3	On parapet walls	m2	50,00	R	R
		Two coats "Brixéal" or equal approved bitumen emulsion waterproof coating				
GRJ	3.5.4	On walls	m2	50,00	R	R
		JOINT SEALANTS ETC				
		<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
GRJ	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>				
GRJ	3.5.6	On flat roofs / floors.	m2	70,00	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ 3.5.7	On turn-ups and turn-downs exceeding 300mm girth	m2	20,00	R	R
GRJ 3.5.8	On sloping roofs	m2	100,00	R	R
GRJ 3.5.9	On tops and sides of inverted beams	m2	20,00	R	R
GRJ 3.5.10	On bottoms and sides of floor ducts, channels, etc	m2	20,00	R	R
GRJ 3.5.11	On bottoms and sides of box gutters	m2	20,00	R	R
GRJ 3.5.12	On bottoms and sides of plant boxes	m2	10,00	R	R
GRJ 3.5.13	Sealing edges to brickwork or concrete	m	10,00	R	R
GRJ 3.5.14	Sealing edges to brickwork or concrete including trowelled mastic bead	m	10,00	R	R
GRJ 3.5.15	Additional membrane 300mm girth at internal and external angles	m	10,00	R	R
GRJ 3.5.16	Dressing and sealing around pipe not exceeding 200mm external diameter, including additional membrane, gussets, collars, etc	No	5,00	R	R
GRJ 3.5.17	On internal surfaces of 300 x 300 x 300mm deep sump, catchpit, etc	No	5,00	R	R
GRJ 3.5.18	On concrete flat roofs including all turn-ups and turndowns and sealing edges where required.	m2	45,00	R	R
	PROTECTIVE STONE DRESSING				
	<u>19mm Crushed stone dressing evenly spread with larger stones around outlets</u>				
GRJ 3.5.19	25mm Thick on waterproofing to flat roofs	m2	50,00	R	R
	PROTECTIVE ROOFING PAINT				
	<u>Two coats "Silvakote" or similar approved bituminous aluminium paint</u>				
GRJ 3.5.20	On waterproofing to roofs	m2	50,00	R	R
GRJ 3.5.21	On inside of existing box gutters	m2	50,00	R	R
	PROTECTIVE ROOFING SHEETING				
	<u>Type 40 bituminous fibreglass felt laid loose</u>				
GRJ 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>				
GRJ 3.5.23	6 x 10mm In saw cut joints in floors	m	10,00	R	R
GRJ 3.5.24	6 x 10mm In expansion joints in tiled walls etc	m	10,00	R	R
GRJ 3.5.25	10 x 15mm In expansion joints in tiled floors etc	m	10,00	R	R
GRJ 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>				
GRJ 3.6.1	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	10,00	R	R
GRJ 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>				
GRJ 3.6.3	Provide the prime cost of R 2000.00 per door leaf & hinges for single door openings	No	10,00	R	R
GRJ 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	11,00	R	R
	<u>44mm Thick solid door suitable for varnish or painting and hung to steel, aluminium or timber frames</u>				
GRJ 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				
GRJ	3.7.1	Ceilings installed using propriety framing system all according to manufacturers specifications	m2	50,00	R	R
GRJ	3.7.2	Vertical ceilings installed using propriety framing system all according to manufacturers specifications	m2	40,00	R	R
GRJ	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>				
GRJ	3.7.4	Ceilings suspended below soffits	m2	50,00	R	R
GRJ	3.7.5	Horizontal bulkheads suspended below concrete soffits	m2	40,00	R	R
GRJ	3.7.6	Sloping bulkheads suspended below concrete soffits	m2	50,00	R	R
GRJ	3.7.7	Extra over ceiling for opening for sprinkler head	No	10,00	R	R
GRJ	3.7.8	Extra over ceiling for opening for down lighter	No	10,00	R	R
GRJ	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>				
GRJ	3.7.10	Ceilings suspended below soffits	m2	60,00	R	R
GRJ	3.7.11	Horizontal bulkheads suspended below concrete soffits	m2	50,00	R	R
GRJ	3.7.12	Sloping bulkheads suspended below concrete soffits	m2	50,00	R	R
GRJ	3.7.13	Extra over ceiling for opening for sprinkler head	No	10,00	R	R
GRJ	3.7.14	Extra over ceiling for opening for down lighter	No	10,00	R	R
GRJ	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>				
GRJ	3.7.16	Pre-painted / coated cornices plugged	m	30,00	R	R
		Shadowline to suspended ceilings				
		<u>Provide the prime cost of R 80.00 per meter for shadowline trim</u>				
GRJ	3.7.17	Pre-painted / coated shadowline trim fixed	m	30,00	R	R
		Insulation				
GRJ	3.7.18	Isotherm 100mm thick polyester thermal ceiling insulation laid on ceilings (measured nett)	m2	100,00	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>				
GRJ	3.7.19	Partitioning up to 2 600mm high with bottom and top tracks plugged	m2	70,00	R	R
GRJ	3.7.20	Partitioning up to 2 900mm high with bottom and top tracks plugged	m2	60,00	R	R
GRJ	3.7.21	Partitioning up to 3 500mm high with bottom and top tracks plugged	m2	50,00	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>					
GRJ	3.8.1	On floors	m2	90,00	R		R
GRJ	3.8.2	On treads and risers of stairs	m2	30,00	R		R
		<u>High traffic epoxy floor paint 2.5 to 3mm thick as per specialists specifications</u>					
GRJ	3.8.3	On floors	m2	90,00	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>					
GRJ	3.8.4	On floors	m2	90,00	R		R
GRJ	3.8.5	On treads and risers of stairs	m2	30,00	R		R
		Materials & Plant					
GRJ	3.8.6	Provision for Sundry Materials & Plant	Prov	1,00	R	5 950,00	R 5 950,00
GRJ	3.8.7	Allow for profit & attendance if required	%		R	5 950,00	R
		Provisional Sum					
GRJ	3.8.8	Sundry Floor Coverings Wall Linings etc Works	Sum	1,00	R	5 950,00	R 5 950,00
GRJ	3.8.9	Allow for profit & attendance if required	%		R	5 950,00	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>				
GRJ	3.9.1	On single doors	No	40,00	R	R
GRJ	3.9.2	On double doors	No	20,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		HINGES, BOLTS, ETC				
		<u>Hinges</u>				
GRJ	3.9.3	Provide the prime cost amount of R350.00 for 100 x 75mm butt hinges (per pair) installed complete	No	70,00	R	R
		PUSH PLATES AND KICKING PLATES				
		<u>Push plates, kick plates etc</u>				
GRJ	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>				
GRJ	3.9.5	Provide the prime cost amount of R3000.00 each for door closers installed complete	No	40,00	R	R
		<u>Panic Bolts etc</u>				
GRJ	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
GRJ	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>				
GRJ	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>				
GRJ	3.9.9	Provide the prime cost amount of R300.00 each for cabin & coat hooks installed complete	No	8,00	R	R
		BATHROOM FITTINGS				
		<u>Toilet Roll Holder</u>				
GRJ	3.9.10	Provide the prime cost amount of R1000.00 each for toilet roll holder plugged to brickwork.	No	10,00	R	R
		<u>Soap Dispenser</u>				
GRJ	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>				
GRJ	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					
		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>					
GRJ	3.10.1	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	50,00	R		R
GRJ	3.10.2	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	30,00	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>					
GRJ	3.10.3	Frame for door 813 x 2032mm high with three 100mm steel hinges per leaf	No	50,00	R		R
GRJ	3.10.4	Frame for door 1613 x 2032mm high with three 100mm steel hinges per leaf	No	30,00	R		R
		<u>Materials & Plant</u>					
GRJ	3.10.5	Provision for Sundry Materials & Plant	Prov	1,00	R	67 625,00	R 67 625,00
GRJ	3.10.6	Allow for profit & attendance if required	%		R	67 625,00	R
		<u>Provisional Sum</u>					
GRJ	3.10.7	Sundry Metalworks	Sum	1,00	R	67 625,00	R 67 625,00
GRJ	3.10.8	Mark up provision on sundry Metalworks	%		R	67 625,00	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>				
GRJ	3.11.1	25mm Thick on floors and landings	m2	140,00	R	R
GRJ	3.11.2	30mm Thick on floors and landings	m2	50,00	R	R
GRJ	3.11.3	30mm Thick on floors on waterproofing membrane	m2	40,00	R	R
GRJ	3.11.4	Average 30mm thick on floors with upper surface to falls	m2	10,00	R	R
GRJ	3.11.5	Average 30mm thick on floors with upper surface to falls and currents	m2	10,00	R	R
GRJ	3.11.6	Average 40mm thick on roofs with upper surface to falls	m2	10,00	R	R
GRJ	3.11.7	Average 40mm thick on roofs with upper surface to falls and currents	m2	10,00	R	R
GRJ	3.11.8	25mm Thick on treads and risers of stairs including reedings	m2	10,00	R	R
GRJ	3.11.9	30mm Thick on treads and risers of stairs	m2	10,00	R	R
GRJ	3.11.10	30mm Thick on narrow widths not exceeding 300mm wide	m2	10,00	R	R
GRJ	3.11.11	Reedings in finish on ramps	m2	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ	3.11.12	50 x 50mm Triangular fillets against walls, kerbs, etc	m	10,00	R	R
		<u>Screeds steel trowelled, on concrete</u>				
GRJ	3.11.13	25mm Thick on floors and landings	m2	140,00	R	R
GRJ	3.11.14	30mm Thick on floors and landings	m2	50,00	R	R
GRJ	3.11.15	30mm Thick on floors on waterproofing membrane	m2	40,00	R	R
GRJ	3.11.16	Average 30mm thick on floors with upper surface to falls	m2	10,00	R	R
GRJ	3.11.17	Average 30mm thick on floors with upper surface to falls and currents	m2	10,00	R	R
GRJ	3.11.18	Average 40mm thick on roofs with upper surface to falls	m2	10,00	R	R
GRJ	3.11.19	Average 40mm thick on roofs with upper surface to falls and currents	m2	10,00	R	R
GRJ	3.11.20	25mm Thick on treads and risers of stairs including reedings	m2	10,00	R	R
GRJ	3.11.21	30mm Thick on treads and risers of stairs	m2	10,00	R	R
GRJ	3.11.22	30mm Thick on narrow widths not exceeding 300mm wide	m2	10,00	R	R
GRJ	3.11.23	Reedings in finish on ramps	m2	10,00	R	R
GRJ	3.11.24	50 x 50mm Triangular fillets against walls, kerbs, etc	m2	10,00	R	R
		GRANOLITHIC				
		<u>Untinted granolithic on concrete</u>				
GRJ	3.11.25	25mm Thick on floors and landings	m2	100,00	R	R
GRJ	3.11.26	30mm Thick on floors and landings	m2	50,00	R	R
GRJ	3.11.27	50mm Thick on floors and landings	m2	40,00	R	R
GRJ	3.11.28	Average 30mm thick on floors with upper surface to falls	m2	10,00	R	R
GRJ	3.11.29	Average 30mm thick on floors with upper surface to falls and currents	m2	10,00	R	R
GRJ	3.11.30	Average 40mm thick on roofs with upper surface to falls	m2	10,00	R	R
GRJ	3.11.31	Average 40mm thick on roofs with upper surface to falls and currents	m2	10,00	R	R
GRJ	3.11.32	25mm Thick on treads and risers of stairs including reedings	m2	10,00	R	R
GRJ	3.11.33	30mm Thick on treads and risers of stairs	m2	10,00	R	R
GRJ	3.11.34	30mm Thick on narrow widths not exceeding 300mm wide	m2	10,00	R	R
GRJ	3.11.35	Reedings in finish on ramps	m2	10,00	R	R
GRJ	3.11.36	Skirtings 100mm high	m	10,00	R	R
GRJ	3.11.37	Skirtings 100mm high stepped over treads and risers	m	10,00	R	R
		EXTERNAL PLASTER				
		Class I cement plaster on brickwork				
GRJ	3.11.38	On walls	m2	220,00	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>				
GRJ	3.12.1	On walls	m2	100,00	R	R
GRJ	3.12.2	On narrow widths	m2	30,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain wall tiles fixed with adhesive to:</u>				
GRJ	3.12.3	On walls	m2	100,00	R	R
GRJ	3.12.4	On narrow widths	m2	30,00	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>				
GRJ	3.12.5	On floors	m2	134,00	R	R
GRJ	3.12.6	On narrow widths	m2	30,00	R	R
GRJ	3.12.7	On floors landings in patterns	m2	50,00	R	R
		<u>Provide the prime cost amount of R 500.00 per m2 for porcelain floor tiles fixed with adhesive to:</u>				
GRJ	3.12.8	On floors	m2	130,00	R	R
GRJ	3.12.9	On narrow widths	m2	30,00	R	R
GRJ	3.12.10	On floors landings in patterns	m2	50,00	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				

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>				
GRJ	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>				
GRJ	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>				
GRJ	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>				
GRJ	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>				
GRJ	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>				
GRJ	3.13.6	Provide the prime cost amount of R 2200.00 each for wall mounted paraplegic basin	No	2,00	R	R
		<u>Urinals</u>				
GRJ	3.13.7	Provide the prime cost amount of R 5000.00 each for wall mounted urinals	No	3,00	R	R
		Toilets etc				
GRJ	3.13.8	Provide the prime cost amount of R 4000.00 each for toilets installed complete	No	5,00	R	R
GRJ	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>				
GRJ	3.13.10	40mm Wash trough waste	No	10,00	R	R
		TRAPS ETC				
		PVC				
GRJ	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				
GRJ	3.13.12	Provide the prime cost amount of R 2000.00 each for taps and sink mixers	No	4,00	R	R
GRJ	3.13.13	Provide the prime cost amount of R 1500.00 each for shower heads	No	3,00	R	R
GRJ	3.13.14	Provide the prime cost amount of R 2000.00 each for shower mixers	No	3,00	R	R
GRJ	3.13.15	22mm Brass Non-return valve	No	5,00	R	R
		SANITARY PLUMBING				
		uPVC soil and vent pipes				
GRJ	3.13.16	40mm Diameter Pipes	m	20,00	R	R
GRJ	3.13.17	50mm Diameter Pipes	m	20,00	R	R
GRJ	3.13.18	75mm Diameter Pipes	m	20,00	R	R
GRJ	3.13.19	110mm Diameter Pipes	m	20,00	R	R
		Extra over uPVC soil and vent pipes for fittings				
GRJ	3.13.20	40mm Bend	No	10,00	R	R
GRJ	3.13.21	40mm Inspection bend	No	10,00	R	R
GRJ	3.13.22	40mm Junction	No	10,00	R	R
GRJ	3.13.23	50mm BSP adaptor	No	10,00	R	R
GRJ	3.13.24	50mm Bend	No	10,00	R	R
GRJ	3.13.25	50mm Inspection bend	No	10,00	R	R
GRJ	3.13.26	50mm Junction	No	10,00	R	R
GRJ	3.13.27	50mm Access bend	No	10,00	R	R
GRJ	3.13.28	50mm vent valve	No	10,00	R	R
GRJ	3.13.29	50mm Two way vent valve	No	10,00	R	R
GRJ	3.13.30	50mm Inspection junction	No	10,00	R	R
GRJ	3.13.31	75mm Bend	No	10,00	R	R
GRJ	3.13.32	75mm Inspection bend	No	10,00	R	R
GRJ	3.13.33	75mm Junction	No	10,00	R	R
GRJ	3.13.34	75mm Inspection junction	No	10,00	R	R
GRJ	3.13.35	75mm Reducing junction	No	10,00	R	R
GRJ	3.13.36	75mm Inspection reducing junction	No	10,00	R	R
GRJ	3.13.37	75mm Reducer	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ	3.13.38	110mm Bend	No	10,00	R	R
GRJ	3.13.39	110mm Inspection bend	No	10,00	R	R
GRJ	3.13.40	110mm Junction	No	10,00	R	R
GRJ	3.13.41	110mm Inspection junction	No	10,00	R	R
GRJ	3.13.42	110mm Reducing junction	No	10,00	R	R
GRJ	3.13.43	110mm Inspection reducing junction	No	10,00	R	R
GRJ	3.13.44	110mm Reducer	No	10,00	R	R
GRJ	3.13.45	110mm Pan connector	No	10,00	R	R
GRJ	3.13.46	110mm Two way vent valve	No	10,00	R	R
		Testing				
GRJ	3.13.47	Testing waste pipe system	Item	1,00	R	R
		WATER SUPPLIES				
		Class 0 copper pipes with brass compression couplings				
GRJ	3.13.48	15mm Pipes	m	20,00	R	R
GRJ	3.13.49	15mm Pipes chased into brickwork or concrete	m	20,00	R	R
GRJ	3.13.50	22mm Pipes	m	20,00	R	R
GRJ	3.13.51	22mm Pipes chased into brickwork or concrete	m	20,00	R	R
GRJ	3.13.52	28mm Pipes	m	20,00	R	R
GRJ	3.13.53	28mm Pipes chased into brickwork or concrete	m	20,00	R	R
GRJ	3.13.54	35mm Pipes	m	20,00	R	R
GRJ	3.13.55	35mm Pipes chased into brickwork or concrete	m	20,00	R	R
GRJ	3.13.56	42mm Pipes	m	20,00	R	R
GRJ	3.13.57	54mm Pipes	m	20,00	R	R
GRJ	3.13.58	67mm Pipes	m	20,00	R	R
GRJ	3.13.59	76mm Pipes	m	20,00	R	R
GRJ	3.13.60	108mm Pipes	m	20,00	R	R
		Extra over Class 0 copper pipes for capillary fittings				
GRJ	3.13.61	15mm Fittings	No	10,00	R	R
GRJ	3.13.62	22mm Fittings	No	10,00	R	R
GRJ	3.13.63	28mm Fittings	No	10,00	R	R
GRJ	3.13.64	35mm Fittings	No	10,00	R	R
GRJ	3.13.65	42mm Fittings	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ	3.13.66	54mm Fittings	No	10,00	R	R
GRJ	3.13.67	67mm Fittings	No	10,00	R	R
GRJ	3.13.68	76mm Fittings	No	10,00	R	R
GRJ	3.13.69	108mm Fittings	No	10,00	R	R
		Extra over Class 0 copper pipes for brass compression fittings				
GRJ	3.13.70	15mm Fittings	No	10,00	R	R
GRJ	3.13.71	22mm Fittings	No	10,00	R	R
GRJ	3.13.72	28mm Fittings	No	10,00	R	R
GRJ	3.13.73	35mm Fittings	No	10,00	R	R
GRJ	3.13.74	42mm Fittings	No	10,00	R	R
GRJ	3.13.75	54mm Fittings	No	10,00	R	R
GRJ	3.13.76	67mm Fittings	No	10,00	R	R
GRJ	3.13.77	76mm Fittings	No	10,00	R	R
GRJ	3.13.78	108mm Fittings	No	10,00	R	R
		Class 12.5 "HDPE" Pipes				
GRJ	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
GRJ	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
GRJ	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
GRJ	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
GRJ	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
GRJ	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
GRJ	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				
GRJ	3.13.86	20mm Diameter Straight Coupling	No	10,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ	3.13.87	20mm Diameter Reducing Coupling	No	10,00	R	R
GRJ	3.13.88	20mm Diameter Equal Tee	No	10,00	R	R
GRJ	3.13.89	20mm Diameter Male Adaptor	No	10,00	R	R
GRJ	3.13.90	20mm Diameter 90 Degree Elbow	No	10,00	R	R
GRJ	3.13.91	40mm Diameter Straight Coupling	No	10,00	R	R
GRJ	3.13.92	40mm Diameter Reducing Coupling	No	10,00	R	R
GRJ	3.13.93	40mm Diameter Equal Tee	No	10,00	R	R
GRJ	3.13.94	40mm Diameter Male Adaptor	No	10,00	R	R
GRJ	3.13.95	40mm Diameter 90 Degree Elbow	No	10,00	R	R
GRJ	3.13.96	50mm Diameter Straight Coupling	No	10,00	R	R
GRJ	3.13.97	50mm Diameter Reducing Coupling	No	10,00	R	R
GRJ	3.13.98	50mm Diameter Equal Tee	No	10,00	R	R
GRJ	3.13.99	50mm Diameter Male Adaptor	No	10,00	R	R
GRJ	3.13.100	50mm Diameter 90 Degree Elbow	No	10,00	R	R
GRJ	3.13.101	75mm Diameter Straight Coupling	No	10,00	R	R
GRJ	3.13.102	75mm Diameter Reducing Coupling	No	10,00	R	R
GRJ	3.13.103	75mm Diameter Equal Tee	No	10,00	R	R
GRJ	3.13.104	75mm Diameter Male Adaptor	No	10,00	R	R
GRJ	3.13.105	75mm Diameter 90 Degree Elbow	No	10,00	R	R
GRJ	3.13.106	90mm Diameter Straight Coupling	No	10,00	R	R
GRJ	3.13.107	90mm Diameter Reducing Coupling	No	10,00	R	R
GRJ	3.13.108	90mm Diameter Equal Tee	No	10,00	R	R
GRJ	3.13.109	90mm Diameter Male Adaptor	No	10,00	R	R
GRJ	3.13.110	90mm Diameter 90 Degree Elbow	No	10,00	R	R
GRJ	3.13.111	110mm Diameter Straight Coupling	No	10,00	R	R
GRJ	3.13.112	110mm Diameter Reducing Coupling	No	10,00	R	R
GRJ	3.13.113	110mm Diameter Equal Tee	No	10,00	R	R
GRJ	3.13.114	110mm Diameter Male Adaptor	No	10,00	R	R
GRJ	3.13.115	110mm Diameter 90 Degree Elbow	No	10,00	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>				
GRJ	3.14.1	On internal walls	m2	240,00	R	R
GRJ	3.14.2	On external walls	m2	240,00	R	R
GRJ	3.14.3	On ceilings and beams	m2	190,00	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>				
GRJ	3.14.4	On partitions	m2	140,00	R	R
GRJ	3.14.5	On ceilings and cornices	m2	140,00	R	R
GRJ	3.14.6	On fascias and barge boards	m2	50,00	R	R
		<u>Apply one coat Professional Alkali resistant plaster primer and three coats Paint (Professional Superior Matt Paint)</u>				
GRJ	3.14.7	On Rhinolite walls	m2	140,00	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>				
GRJ	3.14.8	On doors	m2	50,00	R	R
GRJ	3.14.9	On door frames	m2	50,00	R	R
GRJ	3.14.10	On windows	m2	50,00	R	R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>				
GRJ	3.14.11	On palisade fencing	m2	100,00	R	R
GRJ	3.14.12	On steel barriers	m2	50,00	R	R
GRJ	3.14.13	On balustrades	m2	50,00	R	R
GRJ	3.14.14	On gates, grilles, burglar screens etc.	m2	50,00	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>				
GRJ	3.14.15	On boarded panelling	m2	50,00	R	R
GRJ	3.14.16	On boarded ceilings	m2	50,00	R	R
GRJ	3.14.17	On doors	m2	50,00	R	R
GRJ	3.14.18	On door frames	m2	50,00	R	R
GRJ	3.14.19	On skirtings	m	50,00	R	R
		<u>Prime bare areas with "Wood Primer" and apply two coats "Timber Varnish" (High gloss wood varnish)</u>				
GRJ	3.14.20	On boarded panelling	m2	50,00	R	R
GRJ	3.14.21	On boarded ceilings	m2	50,00	R	R
GRJ	3.14.22	On doors	m2	50,00	R	R
GRJ	3.14.23	On door frames	m2	50,00	R	R
GRJ	3.14.24	On skirtings	m	50,00	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>				
GRJ	3.14.25	On metal roof sheets	m2	240,00	R	R
GRJ	3.14.26	To cladding sheets	m2	100,00	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>				
GRJ	3.14.27	On internal walls	m2	190,00	R	R
GRJ	3.14.28	On external walls	m2	190,00	R	R
GRJ	3.14.29	On ceilings and beams	m2	140,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Matt Paint)</u>				
GRJ	3.14.30	On partitions	m2	140,00	R	R
GRJ	3.14.31	On ceilings and cornices	m2	140,00	R	R
GRJ	3.14.32	On fascias and barge boards	m2	50,00	R	R
		<u>Prepare and apply two coats finishing coat (Professional Superior Low Sheen Paint)</u>				
GRJ	3.14.33	On Rhinolite walls	m2	100,00	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>					
GRJ	3.14.34	Windows and door frames	m2	50,00	R		R
		<u>Prime bare areas with Anti-corrosive primer apply two coats Enamel Paint to mild steel (Professional high gloss enamel paint)</u>					
GRJ	3.14.35	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat ares)	m2	50,00	R		R
		PAINT ON WOOD					
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
GRJ	3.14.36	On general surfaces	m2	50,00	R		R
		<u>Prepare and apply two full coats plascon alkyd enamel paint</u>					
GRJ	3.14.37	On boarded panelling	m2	50,00	R		R
GRJ	3.14.38	On boarded ceilings	m2	50,00	R		R
GRJ	3.14.39	On doors	m2	50,00	R		R
GRJ	3.14.40	On door frames	m2	50,00	R		R
GRJ	3.14.41	On skirtings	m	50,00	R		R
		<u>Prepare and apply two coats "Timber Varnish" (High gloss wood varnish)</u>					
GRJ	3.14.42	On boarded panelling	m2	50,00	R		R
GRJ	3.14.43	On boarded ceilings	m2	50,00	R		R
GRJ	3.14.44	On doors	m2	50,00	R		R
GRJ	3.14.45	On door frames	m2	50,00	R		R
GRJ	3.14.46	On skirtings	m	50,00	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>					
GRJ	3.14.47	On metal roof sheets	m2	283,00	R		R
GRJ	3.14.48	To cladding sheets	m2	50,00	R		R
		Materials & Plant					
GRJ	3.14.49	Provision for Sundry Materials & Plant	Prov	1,00	R	14 900,00	R 14 900,00
GRJ	3.14.50	Allow for profit & attendance if required	%		R	14 900,00	R
		Provisional Sum					
GRJ	3.14.51	Sundry Paint Works	Sum	1,00	R	14 900,00	R 14 900,00
GRJ	3.14.52	Allow for profit & attendance if required	%		R	14 900,00	R

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				CLUSTER 2		
				GRJ		
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				
GRJ	4.1.1	Trim and level terraced area and compact to set levels.	m2	140,00	R	R
		Digging up topsoil				
GRJ	4.1.2	Digging up topsoil to an average depth of 150mm and preserving for use as filling	m3	30,00	R	R
		BULK EXCAVATION, FILLING ETC				
GRJ	4.1.3	Open face excavation in earth over sloping site	m3	20,00	R	R
		Excavation				
GRJ	4.1.4	Excavate in earth not exceeding 1000mm deep	m3	10,00	R	R
		Keeping excavations free of water				
GRJ	4.1.5	Keeping excavations free of water	Item	1,00	R	R
		Extra over all excavations for carting away				
GRJ	4.1.6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	10,00	R	R
		LAYER WORK				
		<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
GRJ	4.1.7	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	6,00	R	R
		<u>Filling supplied by the contractor under parking areas, roadways, etc</u>				
GRJ	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	50,00	R	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GRJ	4.1.9	G8 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.10	G7 Gravel-soil material in 150mm layers compacted to 93% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.11	G7 Gravel-soil material in 150mm layers compacted to 95% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.12	Extra over for G7 stabilised with Portland cement compacted to 95% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.13	Subbase course of G6 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.14	G5 Natural gravel material compacted in 150mm layers to 93% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.15	Subbase course of G5 natural gravel material in 150mm layers compacted to 95% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.16	Base course of G4 natural gravel material in 150mm layers compacted to 98% Mod AASHTO density	m3	6,00	R	R
GRJ	4.1.17	G2 base compacted to 100% Mod AASHTO density	m3	6,00	R	R
		Compaction of surfaces				
GRJ	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	140,00	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>				
GRJ	4.1.19	Under roads, paving etc.	m2	140,00	R	R
		TESTS				
GRJ	4.1.20	<u>Prescribed tests to determine degree of compaction or similar approved properties of ground or filling</u>				
GRJ	4.1.21	"Modified AASHTO Density" test	No	1,00	R	R
GRJ	4.1.22	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	1,00	R	R
GRJ	4.1.23	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	1,00	R	R
GRJ	4.1.24	Atterberg limits test in accordance with methods A2 to A4 of TMH1	No	1,00	R	R
GRJ	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>				
GRJ	4.1.26	Paving to roadwork and parking to falls	m2	90,00	R	R
GRJ	4.1.27	Extra over for curved edges	m	48,00	R	R
		Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing				
		KERBS ETC				
GRJ	4.1.28	Fig.1 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	4.1.29	Fig.2 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	4.1.30	Fig.3 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	4.1.31	Fig.4 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	4.1.32	Fig.5 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	4.1.33	Fig.6 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	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
GRJ	4.1.35	Fig.7 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	4.1.36	Fig.8 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	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
GRJ	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
GRJ	4.1.39	Fig.12 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	4.1.40	Fig.14 Kerbing with unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10,00	R	R
GRJ	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>				
GRJ	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				
GRJ	4.2.1	110mm Diameter pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	10,00	R	R
		Extra over for uPVC fittings				
GRJ	4.2.2	110mm Bend	No	3,00	R	R
GRJ	4.2.3	110mm Junction	No	3,00	R	R
GRJ	4.2.4	110mm Access junction	No	3,00	R	R
GRJ	4.2.5	110mm Rodding Eye	No	3,00	R	R
		uPVC pipe Class 34 HD				
GRJ	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	10,00	R	R
		Extra over for uPVC fittings				
GRJ	4.2.7	160mm Bend	No	4,00	R	R
GRJ	4.2.8	160mm Junction	No	4,00	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>				
GRJ	4.3.1	Over 0m and up to 1.0m	No	1,00	R	R
GRJ	4.3.2	Over 1.0m and up to 2.0m	No	1,00	R	R
GRJ	4.3.3	Over 2m and up to 3m	No	1,00	R	R
GRJ	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>				
GRJ	4.3.5	Over 0m and up to 1.0m	No	1,00	R	R
GRJ	4.3.6	Over 1.0m and up to 2.0m	No	1,00	R	R
GRJ	4.3.7	Over 2m and up to 3m	No	1,00	R	R
GRJ	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>				
GRJ	4.3.9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	6,00	R	R
GRJ	4.3.10	110mm Pipes laid in and including trenches not exceeding 1m deep	m	6,00	R	R
		<u>Extra over heavy duty (Class 34) uPVC sewer and drain pipes for fittings</u>				
GRJ	4.3.11	110mm Bend	No	1,00	R	R
GRJ	4.3.12	110mm Junction	No	1,00	R	R
GRJ	4.3.13	110mm Access bend	No	1,00	R	R
GRJ	4.3.14	110mm Access junction	No	1,00	R	R
GRJ	4.3.15	110mm Rodding eye	No	1,00	R	R
		Class 34 uPVC pipes				
GRJ	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	6,00	R	R
		Extra over items for uPVC fittings				
GRJ	4.3.17	160 x 110 mm Diameter Y junction	No	1,00	R	R
GRJ	4.3.18	160 x 160 mm Diameter Y junction	No	1,00	R	R
		Channel bends				
GRJ	4.3.19	160mm Diameter 45 degree bend	No	1,00	R	R
GRJ	4.3.20	160mm Diameter 90 degree bend	No	1,00	R	R
		Sockets				
GRJ	4.3.21	160mm Diameter	No	1,00	R	R
		End caps				
GRJ	4.3.22	160mm Diameter	No	1,00	R	R
		SUNDRIES				
GRJ	4.3.23	Excavation in earth for pipe trenches, chambers, etc	m3	1,00	R	R
GRJ	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
GRJ	4.3.25	Risk of collapse to sides of trenches	m2	1,00	R	R
GRJ	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
GRJ	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				
GRJ	5.9	Provide the sum of R103,000.00 for Roller Shutters & Hangar Doors by an approved sub-contractor	Sum	1,00	R 103 000,00	R 103 000,00
GRJ	5.10	Allow for profit & attendance if required	%		R 103 000,00	R
		GENERAL GLAZING				
GRJ	5.11	Provide the sum of R51,000.00 for General Glazing by an approved sub-contractor	Sum	1,00	R 51 000,00	R 51 000,00
GRJ	5.12	Allow for profit & attendance if required	%		R 51 000,00	R
		ALUMINIUM FACADE CLADDING, SHOPFRONTS, WINDOWS AND DOORS				
GRJ	5.13	Provide the sum of R103,000.00 for aluminium façade cladding, shopfronts, window and door installation by an approved sub-contractor	Sum	1,00	R 103 000,00	R 103 000,00
GRJ	5.14	Allow for profit & attendance if required	%		R 103 000,00	R
		SIGNAGE				
GRJ	5.15	Provide the sum of R51,000.00 for corporate and directional signage by an approved subcontractor	Sum	1,00	R 51 000,00	R 51 000,00
GRJ	5.16	Allow for profit & attendance if required	%		R 51 000,00	R
		BLINDS, FURNITURE & FITTINGS				
GRJ	5.17	Provide the sum of R77,000.00 for blinds, furniture and fittings by an approved subcontractor	Sum	1,00	R 77 000,00	R 77 000,00
GRJ	5.18	Allow for profit & attendance if required	%		R 77 000,00	R
		TENANT TEMPORARY RELOCATION & REINSTATEMENT				
GRJ	5.19	Provide the sum of R 51,000.00 for tenant temporary relocation and reinstatement works by an approved subcontractor	Sum	1,00	R 51 000,00	R 51 000,00
GRJ	5.20	Allow for profit & attendance if required	%		R 51 000,00	R
		ASBESTOS REMOVAL				
GRJ	5.21	Provide the sum of R51,000.00 for the Removal & Safe Disposal of Asbestos by an approved subcontractor	Sum	1,00	R 51 000,00	R 51 000,00
GRJ	5.22	Allow for profit & attendance if required	%		R 51 000,00	R
		GUTTERS & RAINWATER DISPOSAL SYSTEMS				
GRJ	5.23	Provide the sum of R103,000.00 for Gutters & Rainwater Disposal Systems by an approved subcontractor	Sum	1,00	R 103 000,00	R 103 000,00
GRJ	5.24	Allow for profit & attendance if required	%		R 103 000,00	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE		AMOUNT
		ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS					
		GENERAL ELECTRICAL INSTALLATIONS					
GRJ	5.25	Provide the sum of R310,000.0 for General Electical Installations by an approved subcontractor	Prov	1,00	R	310 000,00	R 310 000,00
GRJ	5.26	Allow for profit & attendance if required	%		R	310 000,00	R
		SUB - STATION INSTALLATIONS					
GRJ	5.27	Provide the sum of R51,000.00 for Sub Station Installations by an approved subcontractor	Sum	1,00	R	51 000,00	R 51 000,00
GRJ	5.28	Allow for profit & attendance if required	%		R	51 000,00	R
		UPS INSTALLATIONS					
GRJ	5.29	Provide the sum of R51,000.00 for UPS Installations by an approved subcontractor	Sum	1,00	R	51 000,00	R 51 000,00
GRJ	5.30	Allow for profit & attendance if required	%		R	51 000,00	R
		GENERATOR INSTALLATION					
GRJ	5.31	Provide the sum of R51,000.00 for the Generator Installation by an approved sub-contractor	Sum	1,00	R	51 000,00	R 51 000,00
GRJ	5.32	Allow for profit & attendance if required	%		R	51 000,00	R
		FIRE DETECTION & FIRE STOPPING INSTALLATION					
GRJ	5.33	Provide the sum of R77,000.00 for the Fire Detection & Fire Stopping Installation by an approved sub-contractor	Sum	1,00	R	77 000,00	R 77 000,00
GRJ	5.34	Allow for profit & attendance if required	%		R	77 000,00	R
		ACCESS CONTROL					
GRJ	5.35	Provide the sum of R25,000.00 for the Access Control System installation by an approved sub-contractor	Sum	1,00	R	25 000,00	R 25 000,00
GRJ	5.36	Allow for profit & attendance if required	%		R	25 000,00	R
		CCTV INSTALLATION					
GRJ	5.37	Provide the sum of R25,000.00 for CCTV installation by an approved sub-contractor	Sum	1,00	R	25 000,00	R 25 000,00
GRJ	5.38	Allow for profit & attendance if required	%		R	25 000,00	R
		INTERNET AND TELECOMMUNICATION INSTALLATION					
GRJ	5.39	Provide the sum of R51,000.00 for the internet and telecommunication installation by an approved subcontractor	Sum	1,00	R	51 000,00	R 51 000,00
GRJ	5.40	Allow for profit & attendance if required	%		R	51 000,00	R

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		GENERAL MECHANICAL INSTALLATION				
GRJ	5.41	Provide the sum of R310,000.00 for General Mechanical Installations by an approved subcontractor	Prov	1,00	R 310 000,00	R 310 000,00
GRJ	5.42	Allow for profit & attendance if required	%		R 310 000,00	R
		FIRE PROTECTION INSTALLATIONS				
GRJ	5.43	Provide the sum of R51,000.00 for Fire Protection Installations by an approved subcontractor	Sum	1,00	R 51 000,00	R 51 000,00
GRJ	5.44	Allow for profit & attendance if required	%		R 51 000,00	R
		SPRINKLER INSTALLATIONS				
GRJ	5.45	Provide the sum of R103,000.00 for Sprinkler Installations by an approved subcontractor	Sum	1,00	R 103 000,00	R 103 000,00
GRJ	5.46	Allow for profit & attendance if required	%		R 103 000,00	R
		GAS SUPPRESSION INSTALLATIONS				
GRJ	5.47	Provide the sum of R103,000.00 for Gas Suppression Installations by an approved subcontractor	Sum	1,00	R 103 000,00	R 103 000,00
GRJ	5.48	Allow for profit & attendance if required	%		R 103 000,00	R
		SMOKE EXTRACTION INSTALLATIONS				
GRJ	5.49	Provide the sum of R103,000.00 for Smoke Extraction Installations by an approved subcontractor	Sum	1,00	R 103 000,00	R 103 000,00
GRJ	5.50	Allow for profit & attendance if required	%		R 103 000,00	R
		HVAC INSTALLATION				
GRJ	5.51	Provide the sum of R310,000.00 for the HVAC installation by an approved sub-contractor	Sum	1,00	R 310 000,00	R 310 000,00
GRJ	5.52	Allow for profit & attendance if required	%		R 310 000,00	R
		LANDSCAPING WORKS				
GRJ	5.53	Provide the sum of R103,000.00 for Landscaping Works by an approved sub-contractor	Sum	1,00	R 103 000,00	R 103 000,00
GRJ	5.54	Allow for profit & attendance if required	%		R 103 000,00	R
		SPECIALIST WORKS				
GRJ	5.55	Provide the sum of R51,000.00 for Specialist Works by an approved sub-contractor	Prov	1,00	R 51 000,00	R 51 000,00
GRJ	5.56	Allow for profit & attendance if required	%		R 51 000,00	R
		CARRIED TO SITE SUMMARY				R

				CLUSTER 2		
				GRJ		
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				
GRJ	6.1	General building / building rubble waste to landfill	ton	30,00	R	R
		RECYCLING / REPURPOSING RETURN				
GRJ	6.2	Glass	Kg	100,00	(-R	(-R
GRJ	6.3	Plastics	Kg	100,00	(-R	(-R
GRJ	6.4	Steel	Kg	100,00	(-R	(-R
GRJ	6.5	Stainless Steel	Kg	100,00	(-R	(-R
GRJ	6.6	Copper	Kg	100,00	(-R	(-R
GRJ	6.7	Aluminium	Kg	100,00	(-R	(-R
GRJ	6.8	Brass	Kg	100,00	(-R	(-R
GRJ	6.9	Iron	Kg	100,00	(-R	(-R

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	SITE SUMMARY - GRJ	PAGE NO.	AMOUNT
	PRICE SUMMARY		
1	Preliminaries	237	R
2	Labour Schedule	240	R
3	Building Works	293	R
4	External Works	303	R
5	Provisional Sums	307	R
6	Waste Disposal, Repurposing & Recycling	309	R
	CARRIED TO CLUSTER SUMMARY		R

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