

George Airport Ablutions
Builders work Bills of Quantities

DOC REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	<u>BILL NO. 1</u>				
1	<u>PRELIMINARIES</u>				
1	<u>PRICING ASSUMPTIONS</u>				
1	1. The Provisional Bills of Quantities have been drawn up in accordance with the "Standard System of Measuring Building Work Sixth Edition (Revised 1999) published by the South African Association of Quantity Surveyors. Descriptions in the Provisional Bills of Quantities are abbreviated and comply generally with those in the "Model Preambles for Trades 2008".			0,0	
1	2. The conditions of contract are the clauses of the NEC3 Contract (April 2013) - Option B available from the South African Institution of Civil Engineering (011-805-5947) or Engineering Contract Strategies (011-803-3008). Tenderers must obtain copies at their own cost.			0,0	
1	3. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.			0,0	
1	4. No quantities are set out in the Provisional Bills of Quantities and the Contractor will be required to undertake whatever quantities may be directed by the Principal Agent from time to time in the relevant Works Project. The final Contract Price for each completed Works Project shall be computed from the actual quantities of work done, valued at the relevant rates (refer to Clause 9 in these Pricing Assumptions in this regard).			0,0	
1	5. Rates inserted in the Provisional Bills of Quantities are deemed to be based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.			0,0	
1	6. The rates (excluding VAT) inserted in the Provisional Bills of Quantities shall be the full inclusive rates for the work described under the several items. Such rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable rates shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith shall be provided for and included in the rates tendered for such items.			0,0	

	7. A rate is to be entered against each item in the Provisional Bills of Quantities for the regions selected by the Tenderer. If a nil rate (i.e. "nil" or "0.00") is entered against an item, it will be considered that there is no charge for that particular item. An item against which no rate (or rates, in the case of rate categories if provided) is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonable of such rates.				
2				0,0	
2	8. The Tenderer may not group a number of items together and tender one lump sum for such group of items.			0,0	
2	9. The tendered rates shall remain valid and binding, not subject to contract price adjustment, if applicable, for the full duration of the framework contract.			0,0	
2	10. The Employer reserves the right to negotiate with the Tenderer if a rate or rates is/are excessively high, and to perform a risk analysis if a rate or rates is/are excessively low.			0,0	
3	11. The units of measurement described in the Provisional Bills of Quantities are metric units. Abbreviations which may be used in these Bills of Quantities are as follows: mm=Millimetreh=Hour m=Metrekg=Kilogram km=Kilometret=Ton (1000 kg) km-pass =Kilometre-passNo.=Number m ² =Square metresum=Lump sum m ² .pass =Square metre-passMN=Meganewton ha=HectareMN.m=Meganewton-metre m ³ =Cubic metrePC sum=Prime cost sum m3.km=Cubic metre-kilometreProv sum=Provisional sum l=Litre%=Percent kl=KilolitrekW=Kilowatt MPa=Megapascalday=Working day kPa=Kilopascal			0,0	
3	12. The Employer will only order those quantities of work items, which it actually requires for execution in a Works Project from time to time. The Employer reserves the right not to order any quantities at all depending on circumstances and subject to operational requirements.			0,0	
3	13. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or equal approved".			0,0	
3	<u>GENERAL NOTES</u>				
3	The Tenderer is advised to visit the site and satisfy himself as to the nature and extent of the works on site, the means of access and the facilities available for carrying out the work, as no claim will later be allowed in this connection.			0,0	
4	This entire Bills of Quantities is completely PROVISIONAL and will be remeasured during construction. Quantities in this Bills of Quantities are in no way final and is subject to site conditions, updated information and methodologies requested as works progress on site.			0,0	

4	The Provisional Bills of Quantities are for budget purposes only. Various unforeseen items such as site constraints, ground conditions, service positions, etc. will influence the quantities which will lead to the BOQ and budget being adjusted accordingly.		0,0		
4	<u>SCHEDULED, ESTABLISHMENT, OVERHEADS & INCIDENTAL COSTS</u>				
4	The rates and prices for competing an item scheduled in this section for establishment, overheads and incidental costs include everything to cover the Contractor's direct costs, overheads, profit and expenses required for all risks, liabilities and obligations in terms of this contract.		0,0		
4	PLEASE NOTE: The Contractor hereby agrees that the rates in this section will be used for compensation event cost calculation and pricing where applicable instead of Defined Cost, unless otherwise decided by the Employer, at the Employer's sole discretion. Lump sum prices in this section are fixed for the contract, and are not subject to adjustment in compensation event assessments.		0,0		
4	All the items scheduled in this section must be priced. In the absence of a price against any item, no claim for additional costs or charges for provision of any of the duties, services, facilities or obligations required in respect of that item will be considered.		0,0		
5	<u>ONCE-OFF ESTABLISHMENT AND OVERHEAD</u>				
5	<u>(Claimable for payment upon completion of all related activities associated with each Price.</u>				
5. A	Initial Costs for full compliance of all clauses of this contract and the Works Information, including inter alia performance bond (if applicable), insurances, UIF contributions, Occupational Health & Safety Act requirements and all other expenses and liabilities associated with contractual obligations.	Item	1,00		
5. B	Initial costs for site establishment including inter alia equipped site office, temporary fencing, storage & waste area/structures, workshops, laboratories, accommodation, project name board, toilet & ablution facilities, services and any and all other costs related to the Contractor's establishment on site.	Item	1,00		
5. C	Cost for complete removal of site establishment (de-establishment) and restoration of the site to the Employer's satisfaction at the end of the contract	Item	1,00		
5	<u>ONGOING OPERATIONAL AND OVERHEAD</u>				
5	<u>(Claimable for payment as time-related cost during the execution of the contract)</u>				
5. D	Ongoing operational costs and overheads (including head office overheads) for full compliance with all clauses of this contract and the Works information, including inter alia performance bond (if applicable), insurances, UIF contributions, Occupational Health & Safety Act requirements, community liaison officer (CLO), labour and training requirements and all other expenses and liabilities associated with contractual obligations (Measured in Weeks)	No	16		

5. E 5 6	Ongoing operational costs and overheads to maintain and operate the site establishment including inter alia equipped site office, temporary fencing, storage & waste areas/structures, workshops, laboratories, accommodation, project name board, toilet & ablution facilities, services and any and all other costs related to the Contractor's establishment on site. (Measured in Weeks) <u>THE SITE</u> <u>Hoarding</u>	No	16		
6. A 6	The contractor shall enclose the contractors camp site by means of hoarding 1,8m high overall comprising a corrugated sheeting barrier, securely fixed to 100mm diameter creosote treated gumpoles at 3m centres set securely into ground to a minimum depth of 600mm and including all necessary corner posts, stays, etc. and including three (3 No.) access gates as required shall be erected prior to construction work commencing. Hoardings shall be maintained, kept clean and free from unauthorised posters, graffiti, etc. and finally removed, including making good. The extent of hoarding is approximately 80m. Internal hoarding is included elsewhere. <u>Advertising board</u>	Item	1,00		
6. B 7	The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3,1 x 2,1m as, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines deep blue. All wording shall be inscribed in deep blue painted Helvetica medium lettering. As alternative the notice board as approved by the professional bodies will be allowed. No sub-contractor's individual boards will be allowed on the site <u>Interference with traffic flow and nearby properties</u>	Item	1,00		

7. A	All operations necessary for the execution of the works and for the construction of any temporary works shall not interfere unnecessarily or improperly with the access of the public to permanent roads and footpaths. The Contractor shall indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in respect of or in relation to any such matters. The Contractor shall at all times accommodate such provisions as may be necessary in the opinion of the Project Manager to ensure that disruption to the occupants of the nearby buildings or the public is kept to an absolute minimum. The Contractor shall make all necessary provisions in his rates for his requirements and no additional entitlement on the part of the Contractor in compliance with these requirements shall be entertained. The Contractor must reinstate the existing streets, pavings, kerbs, etc. to their original condition on completion of the building operations to the satisfaction of the Project Manager. <u>Architectural design and supervision</u> architectural professional, registered with the South African Council for the Architectural Profession (SACAP), to undertake all architectural professional services required for the works from SACAP Work Stage 4 through to Work Stage 6. The scope shall include, but not be limited to: Stage 4 – Documentation and Procurement: Preparation and completion of all architectural drawings, schedules, specifications and other documentation required for statutory approval, procurement and construction, including submission to the relevant local authority, liaison with statutory authorities, responding to comments, amendments and resubmissions as reasonably required to obtain approval; Coordination of the architectural design and documentation with the Principal Agent, other consultants, specialists, subcontractors and suppliers as required; Stage 5 – Construction: Provision of architectural services during construction, including attendance at meetings where reasonably required, site inspections, clarification of architectural information, review of relevant shop drawings and coordination of design-related matters; and Stage 6 – Close-Out: Attendance to final inspections, preparation of snagging information relevant to the architectural works, updating and/or preparation of record drawings where required, and provision of architectural documentation necessary for completion and close-out of the Works. The tendered amount shall include all professional fees, travelling, meetings, printing, documentation, coordination, revisions, submissions and resubmissions necessary to complete the Registered Architect – SACAP Work Stages 4 to 6 <u>Council / statutory submission fees</u> Allow for payment of all applicable local authority, municipal and statutory plan scrutiny, building plan submission and approval fees associated with the architectural design and submissions. Council / statutory submission and approval fees	Item	1,00		
			0,0		
		Item	1,00		
		Item	1,00		

9	<u>BILL NO 2</u>				
9	<u>ALTERATIONS</u>				
9	<u>SUPPLEMENTARY PREAMBLES</u>				
9	NOTE : All materials from demolitions are to be removed from site unless otherwise stated.			0,0	
9	The whole of the old materials arising from the alterations shall become the property of the Contractor and shall be carted away from the site immediately as it becomes available.			0,0	
9	_____			0,0	
9. A	Bidders are notified that the existing buildings are presently occupied and employees will take out and remove their own furniture, fixtures and fittings before vacating any part of the premises. Tenderers shall liaise with the Architect to ascertain which furniture, fixtures and fittings form part of the building to be handed over for alterations before making allowances in respect thereof and before submitting a tender.	Item		1,00	
9. B	No services (ie. air conditioning, telephone systems, electricity, etc.) shall be disconnected or disturbed in any way by the Contractor without due notice to the Architect, who will make the necessary arrangements, etc., thereto. The Contractor shall be liable for any damage to this work and shall make same good at his own expense.	Item		1,00	
9. C	The removal of and alterations to the electrical and air conditioning installations shall be executed by direct sub-contractors (as elsewhere provided) and the Contractor shall be responsible for the co-ordination of such work with his own.	Item		1,00	
9. D	Prices for the demolition of any portion of the structure shall include for its demolition complete with all surface finishes such as plaster, screeds, etc., all attached items of joinery such as skirtings, etc., and all reinforcement, conduit, pipes, lintels, etc., built into that portion of the structure.	Item		1,00	
9. E	In taking down and removing existing work the utmost care shall be observed to avoid any structural or other damage to the remaining portions of the building. The Contractor shall cover up and protect from injury all work not removed and shall make good at his own expense any damage that may occur.	Item		1,00	
10. A	Provide and erect all casings and protection for and cover up all existing fittings, doors, windows, joinery work, walls, floors, etc., not disturbed during the alterations, clear away and make good on completion.	Item		1,00	
10. B	Allow for watering the Works with a jet or spray sufficiently to prevent any nuisance from dust during the alterations or demolitions.	Item		1,00	
10. C	Provide, erect and remove when directed all incidental shoring, needling, strutting, etc., that may be necessary while carrying out any portion of the Works to ensure stability of the premises with suitable and substantial timber and other materials. Prices for all items of demolition to form openings shall include for the provision of such support.	Item		1,00	
10. D	Prices for the removal of doors and frames shall include for the removal of fanlights, ironmongery, architraves and other associated trimmings.	Item		1,00	

10. E	Prices for the removal of sanitary fittings shall include for the removal of copper service pipes, traps, brackets and cisterns.	Item	1,00		
10	<u>TEMPORARY BARRIERS, SCREENS, ETC</u>				
10	<u>Temporary barriers, screens, etc including removal</u>				
10. F	Dust screen 3m high between of suitable timber framing and posts filled with suitable boarding, including corners, ends, etc	m	10		
10. G	Extra over for hollow core single door 813 x 2032mm high, including steel frame, two-lever mortice lock, primer and two coats paint	No	6		
10	<u>REMOVAL OF EXISTING WORK</u>				
10	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>				
10. H	Suspended ceiling tiles , including cornices, suspension grid, hangers, etc	m2	28		
10	<u>Taking out and removing doors, windows, etc, including thresholds, sills, etc and building up openings in brick walls, including making good cement plaster on sides (making good paintwork elsewhere)</u>				
10. I	Timber single door and frame 900 x 2 100mm high overall from 320mm cavity wall	No	1		
10. J	Window and frame size 1 000 x 1 000mm high in 320mm cavity wall	No	1		
11	<u>Hacking up/off and removing ceramic tiles including removing mortar bed or adhesive from concrete or brickwork and preparing surfaces for new screed, plaster, tile finish, etc</u>				
11. A	Tiles to floors	m2	28		
11. B	Tiles to walls	m2	197		
11	<u>Take out carefully and remove sanitary fittings complete with all pipework, fittings, etc., to receive new.</u>				
11. C	Washhand basin and steel frame	No	8		
11. D	WC Suite consisting of pan and cistern complete	No	7		
11. E	Urinal	No	2		
11	<u>CUTTING THROUGH FLOORS AND CEILINGS</u>				
11	<u>Cutting through</u>				
11. F	150mm Thick reinforced concrete surface beds for 110mm diameter pipes and making good concrete (pipes with excavations elsewhere)	m	60		
11	<u>OPENINGS THROUGH EXISTING WALLS ETC</u>				
11	<u>Breaking out for and forming plain openings through brick walls, including prestressed concrete lintels, making good cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled finish (making good paintwork elsewhere)</u>				
11. G	Opening 1 000 x 2 100mm high through 320mm cavity brick wall	No	1		
11. H	Opening 2 000 x 2 100mm high through 320mm cavity brick wall	No	1		
11	<u>BUILDING UP NEW OPENINGS</u>				
11	<u>Sundries:</u>				
11. I	Cut tooth and bond new brickwork to existing for brick walls 320mm cavity wall	m	6		
13	<u>BILL NO 3</u>				
13	<u>EARTHWORKS</u>				
13	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		

13	-----		0,0		
13	<u>SUPPLEMENTARY PREAMBLES</u>				
13	<u>Nature of the ground</u>				
13	The nature of the ground is assumed to be silty clay, therefore "earth"		0,0		
13	<u>Working space</u>				
13	No formwork or working space has been measured to the sides of concrete wall footings and column bases and no formwork or additional backfilling necessary due to over-excavations will be measured. Backfilling to such over-excavations areas must be compacted to the same degree and in the same manner as the backfilling to the remainder of such excavation		0,0		
13	Working space for formwork to sides of all concrete, except columns, has been measured only where the concrete face is less than 750mm from the face of the measured excavation. Working space for formwork to sides of columns has been measured for the width of the column face only where both: - the top of column bases is more than 1,5m below the commencing level of the excavations and - the column face is less than 500mm from the face of the measured excavations. No claim will be considered for any working space for formwork to concrete other than as above described or for working space beyond the sides of trench excavations for the building of brick or block walls		0,0		
13	<u>Carting away of excavated material</u>				
13	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		0,0		
14	-----		0,0		
14	<u>EXCAVATION, FILLING, ETC</u>				
14	<u>Excavation in compacted fill not exceeding 2m deep</u>				
14	Holes	m3	27		
14	<u>Extra over all excavations for carting away</u>				
14. A	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	27		
14	<u>Risk of collapse of excavations</u>				
14. B	Sides of trench and hole excavations exceeding 1,5m deep	m2	55		
14	<u>Keeping excavations free of water</u>				
14. C	Keeping excavations free of water	Item	1,00		
14	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
14. D	Backfilling to trenches, holes, etc	m3	23		
14	<u>Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u>				
14. E	Under floors, steps, pavings, etc	m3	4		
14	<u>Compaction of surfaces</u>				
14. F	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 90% Mod AASHTO density	m2	2		
14. G	Compaction below footings	m2	16		
14	<u>Prescribed density tests on filling</u>				
14. H	"Modified AASHTO Density" test	No	4		
14. I	Field density tests	No	4		
16	<u>BILL NO 4</u>				

16	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
16	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill			0,0	
16	-----			0,0	
16	<u>SUPPLEMENTARY PREAMBLES</u>				
16	<u>Cost of tests</u>				
16	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 submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Architect. (Test cubes are measured separately)			0,0	
16	<u>Formwork</u>				
16	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 re-conditioning as necessary before re-use			0,0	
16	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			0,0	
16	Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described			0,0	
16	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			0,0	
16	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"			0,0	
17	<u>Concrete</u>				
17	Prices for concrete in strip footings and filling to cavity of hollow walls are to include for working around steel reinforcing bars where applicable			0,0	
17	-----			0,0	
17	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
17	<u>15MPa/19mm concrete</u>				
17. A	Blinding layer	m3		1	
17	<u>25MPa/19mm concrete</u>				
17. B	Ramps	m3		0,3	
17	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
17	<u>30MPa/19mm concrete</u>				
17. C	Bases	m3		3	
17. D	Surface beds on waterproofing	m3		3	
17	<u>REINFORCED CONCRETE</u>				
17	<u>30MPa/19mm concrete</u>				
17. E	Slabs, including beams and inverted beams	m3		5	
17	<u>30MPa/19mm concrete</u>				

17. F	Columns in foundations	m3	1		
17	<u>Finishing top surfaces of concrete smooth with a power float</u>				
17. G	Surface beds, slabs, etc	m2	2		
17	<u>TEST BLOCKS</u>				
	Making and testing 150 x 150 x 150mm concrete strength test cube	No	3		
17. H	<u>FORMWORK</u>				
18	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>				
18	<u>Smooth formwork to sides</u>				
18. A	Rectangular columns in foundations	m2	14		
18. B	Bases in foundations	m2	6		
18. C	Inverted beams	m2	5		
18. D	Inverted beams above concrete	m2	3		
18	<u>Smooth formwork to soffits</u>				
18. E	Slabs propped up not exceeding 3,5m	m2	20		
18	<u>MOVEMENT JOINTS ETC</u>				
	<u>Expansion joints with softboard between vertical concrete and brick surfaces</u>				
18. F	12mm Joints not exceeding 300mm high	m	12		
	<u>Expansion joints with softboard between horizontal concrete and brick surfaces</u>				
18. G	12mm Joints not exceeding 300mm high	m	18		
18	<u>REINFORCEMENT</u>				
18	<u>Mild steel reinforcement to structural concrete work</u>				
18. H	10mm Diameter bars	t	0,01		
18. I	8mm Diameter bars	t	0,02		
18	<u>High tensile steel reinforcement to structural concrete work</u>				
18. J	20mm Diameter bars	t	0,03		
18. K	16mm Diameter bars	t	0,41		
18. L	12mm Diameter bars	t	0,39		
18. M	10mm Diameter bars	t	0,22		
19	<u>Fabric reinforcement</u>				
	Ref 245 fabric reinforcement in concrete surface beds, slabs, etc	m2	30		
21	<u>BILL NO 5</u>				
21	<u>MASONRY</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
21	-----		0,0		
21	<u>SUPPLEMENTARY PREAMBLES</u>				
21	<u>BRICKWORK</u>				
21	<u>Sizes in descriptions</u>				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick		0,0		
21	<u>Hollow walls etc</u>				
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole		0,0		
21	<u>Wall ties for brickwork</u>				

	Wall ties shall be polypropylene "Permaties" complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the brickwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other				
21				0,0	
21	-----			0,0	
21	<u>BRICKWORK</u>				
21	<u>SUPERSTRUCTURE</u>				
	<u>Brickwork of NFX clay bricks (14Mpa nominal compressive strength) in Class II mortar</u>				
21					
21. A	Half brick walls	m2		7	
	280mm Hollow walls of two half brick skins, including polypropylene ties	m2		12	
22	<u>BRICKWORK SUNDRIES</u>				
22. B	Splayed mortar fillet one course high in 50mm cavity	m		14	
	Closing 50mm cavity of hollow wall vertically with brickwork half brick wide	m		4	
22. C	Closing 50mm cavity of hollow wall horizontally with two courses of brickwork	m		1	
22	<u>Brickwork reinforcement</u>				
22. E	75mm Wide brickwork reinforcement built in horizontally	m		70	
22	<u>"Fab-con" pre-stressed fabricated lintels</u>				
22. F	100 x 70mm Lintels in lengths not exceeding 3m	m		2	
22. G	150 x 70mm Lintels in lengths not exceeding 3m	m		2	
22. H	230 x 70mm Lintels in lengths not exceeding 3m	m		5	
22	<u>WINDOW SILLS</u>				
22	<u>Brick-on-edge sill</u>				
	200mm Wide sills set sloping and slightly projecting (to be plastered)	m		1	
22. I					
24	<u>BILL NO 6</u>				
24	<u>WATERPROOFING</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill			0,0	
24	-----			0,0	
24	<u>SUPPLEMENTARY PREAMBLES</u>				
24	<u>Waterproofing</u>				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			0,0	
24	-----			0,0	
24	<u>DAMPPROOFING OF WALLS AND FLOORS</u>				
	<u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u>				
24					
24. A	In walls	m2		2	
	<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>				
24					
24. B	Under surface beds	m2		2	
	<u>One layer of 4mm thick "Maltoid Index Fidra P" or similar approved waterproofing</u>				
24					
24. C	In wall cavities over stepped damp proof courses	m2		0,4	
24	<u>WATERPROOFING TO ROOFS, BASEMENTS, ETC</u>				

	<u>Supply and install a two-layer torch-applied polymer-modified bituminous waterproofing membrane system comprising a 3 mm thick polyester-reinforced base sheet and a 4 mm thick mineral-surfaced cap sheet, fully bonded to primed concrete substrates in accordance with the manufacturer's instructions. All laps to be torch welded and sealed to form a continuous waterproof membrane, including flashings, upstands, terminations and sealing around outlets complete. System to be UV resistant, accommodate normal thermal movement and comply with applicable standards for reinforced bitumen roofing membranes.</u>				
25					
25. A	On flat roofs	m2	20		
25. B	On tops and sides of inverted beams	m2	11		
	Flashing strip at turn-ups including sealing top edge into				
25. C	groove with mastic	m	18		
25. D	30 x 30mm Triangular fillet.	m	18		
	Extra over waterproofing for dressing waterproofing into				
25. E	300mm fullbore outlet	No	1		
25	<u>PROTECTIVE ROOFING PAINT</u>				
25	<u>Two coats bituminous aluminium paint</u>				
25. F	On waterproofing to roofs	m2	20		
25	<u>JOINT SEALANTS, ETC</u>				
	<u>Secoflex joint sealant with backing cord, bond breaker, primer, etc</u>				
25					
25. G	10 x 13mm In floors	m	12		
	10 x 10mm In vertical expansion joints, including raking out				
25. H	expansion joint filler as necessary	m	18		
27	<u>BILL NO 7</u>				
27	<u>CARPENTRY AND JOINERY</u>				
	NOTE: Tenderers are advised to study the Model Preambles				
27	for Trades before pricing this bill		0,0		
27	-----		0,0		
27	<u>SUPPLEMENTARY PREAMBLES</u>				
27	<u>Particle board</u>				
	Particle board shall comply with the following specifications:				
	a) SABS 1300 Particle board: exterior and flooring type b)				
27	SABS 1301 Particle board: interior type		0,0		
27	<u>Meranti</u>				
	All meranti shall be selected meranti and shall be free of "sap"				
27	wood		0,0		
27	<u>Joinery</u>				
	Descriptions of frames shall be deemed to include frames,				
	transomes, mullions, rails, etc Descriptions of hardwood				
27	joinery shall be deemed to include pelleting of bolt holes		0,0		
27	<u>Fixing</u>				
	Items described as "nailed" shall be deemed to be fixed with				
27	hardened steel nails or shot pins to brickwork or concrete		0,0		
27	<u>Decorative laminate finish</u>				
	Laminate finish shall be glued under pressure. Edge strips				
27	shall be butt jointed at junctions with adjacent similar finish		0,0		
27	-----		0,0		
27	<u>DOORS</u>				
	<u>Solid core flush door with hardboard facing suitable for</u>				
28	<u>painting</u>				
28. A	44mm Door type D6A size 813 x 2 032mm high	No	4		

28	<u>JOINERY</u>				
28	<u>22mm Thick Iceberg white Quartz with 1/4 bevel top edge counter tops</u>				
28. B	Countertop size 1 880 x 600mm fixed to wall including 2 rectangular basin cut outs	No	1		
28. C	Countertop size 1 620 x 600mm fixed to wall including 2 rectangular basin cut outs	No	1		
28. D	Countertop size 900 x 600mm fixed to wall including rectangular basin cut out	No	1		
28. E	Ledge size 1 880 x 160mm fixed to wall	No	1		
28. F	Ledge size 1 620 x 160mm fixed to wall	No	1		
28. G	Ledge size 900 x 160mm fixed to wall	No	1		
30	<u>BILL NO 8</u>				
30	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>				
30	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
30	-----		0,0		
30	<u>SUPPLEMENTARY PREAMBLES</u>				
30	<u>Descriptions</u>				
30	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete. Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere		0,0		
30	<u>Bulkheads</u>				
30	Bulkheads are those areas of the ceiling which are at a level differing from the general ceiling in a particular room or area and which generally occur along the perimeter of the room or area. Their purpose is either to conceal services or to create an architectural feature by changing levels.		0,0		
30	Bulkheads will only be measured as such when they conform with the above description and when the horizontal or vertical dimensions do not exceed 1,2m. Should these dimensions be more than 1,2m then the horizontal or vertical ceilings will be included in the general ceiling measurements.		0,0		
30	-----		0,0		
30	<u>SUSPENDED CEILINGS</u>				
30	<u>SUPPLEMENTARY PREAMBLES</u>				
30	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations		0,0		
30	The grid shall be suspended by means of galvanised steel L-section hangers at suitable centres, securely shot-pinned or screwed to concrete, steel or wood		0,0		
31	Bulkheads shall comprise galvanised steel studding of 63,5mm top and bottom tracks with vertical studs at maximum 400mm centres, pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with plasterboard screwed to studding with drywall screws at maximum 300mm centres. Boards shall be butt jointed and finished with tape and jointing compound and the whole finished with gypsum plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer		0,0		

31	Descriptions shall be deemed to include any additional studs at ends and intersections, corner beads, cornices at junctions with ceilings, jointing compound, tape, etc		0,0		
31	<u>SUPPLEMENTARY PREAMBLES</u>				
31	<u>Proprietary suspended ceilings</u>				
	NOTE:Electrical light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)				
31	-----		0,0		
31			0,0		
	<u>Biologically absorbable mineral wool ceiling tiles, NRC - 0.80, CAC - 33dB, Fire classification A2-s1, d0, weight - 4.5 kg/m², size 1200 x 600 x 15mm with Reveal-edge and white painted finish, laid on fire rated S3a exposed demountable T24 suspension system, comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm, and all installed to manufacturer's instructions.</u>				
31	To ceilings suspended exceeding 0,5m and not exceeding 2m below timber purlins or concrete slab	m2	45		
31. A	25mm shadowline w-trim plugged and screwed at centres not exceeding 200mm with colour and finish to Architect's approval	m	93		
31. B					
31	<u>INSULATION</u>				
31	<u>Thermal insulation to achieve a R-Value of 1.18</u>				
	80mm Thermal isolation blanket closely fitted and laid on top of suspended ceilings, etc	m2	28		
31. C					
32	<u>PARTITIONS, ETC.</u>				
32	<u>SUPPLEMENTARY PREAMBLES</u>				
	Drywall partitioning shall comprise steel studding formed of 90mm aluminium top track and 64mm aluminium bottom track with vertical studs at maximum 600mm centres, friction fitted or pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with 12,5mm plasterboard screwed to studding with "Drywall" screws at maximum 220mm centres. Boards are to be butt jointed and finished with "Rhino" tape and "Readymix D" jointing compound all in accordance with the manufacturer's instructions. Intersections and abutments are measured separately and descriptions shall be deemed to include any additional studs, corner beads, jointing compound, tape, etc				
32	Partitioning walls to be DONN reference DW/6/96 and all corners and joints are to be constructed to DONN reference DW/14/96		0,0		
32	Unless otherwise described rates for partitions shall be deemed to include for standard flat section aluminium skirtings on both sides		0,0		
32	Wall paper and/or paint and varnish finishes are measured elsewhere		0,0		
32	Frames for shopfronts and windows to be allowed for in the metalwork trade but any additional finishes required on the reveals to be included below		0,0		

32	<u>Gyproc moisture resistant drywall as per the Architects specification</u>				
32. A	Partitioning 3 000mm high with bottom track plugged and top track fixed to concrete soffit	m	7		
32. B	Partitioning 2 750mm high with bottom track plugged and top track fixed to concrete soffit	m	5		
32. C	Partitioning 1 200mm high with bottom track plugged and exposed fair edge	m	4		
32. D	Extra over partition 3 000mm high for vertical abutment	No	6		
32. E	Extra over partition 3 000mm high corner	No	2		
32. F	Extra over partition 2 750mm high for vertical abutment	No	4		
32. G	Extra over partition 1 200mm high for vertical abutment	No	2		
33	<u>Gyproc classic wall system drywall as per the Architects specification</u>				
33. A	Partitioning 3 000mm high with bottom track plugged and top track fixed to concrete soffit	m	3		
33. B	Extra over partition 3 000mm high for vertical abutment	No	2		
	<u>approved (of following standard dimension which includes 600mm door size width) self supporting 12mm thick compact laminates made out of, urea free, thermosetting phenolic resins treated Kraft papers as core material and Amino plastic resin treated decor papers on the finish surface, conforming to latest and applicable IS: 2046-1995, EN 438:2016 and NEMA LD3-2005 quality standards with Antivirus, Antibacterial and Antifungal properties (conforming to ISO 21702:2019, JIS Z2801:2010 and ASTM G21-2015 standards respectively) to fulfil the applicable requirements of indoor air quality certifications for Greenguard-Gold standards. This also includes providing and fixing in position necessary hardware made out of Nylon Polyamide grade 6 & Aluminium alloy grade 6063-T6 powder coated finish in black and other available color hardwares as per manufacturer's specifications & Architects instructions like (1) Self closing hinges in Nylon Polyamide grade 6 in gloss finish in available colors (2) Soft closing thumb turn lock made in nylon polyamide grade 6 in gloss finish in available colors (3) Single Coat hook in nylon polyamide grade 6 in gloss finish, available in similar available colors (4) U & F- profiles in Aluminium alloy grade 6063-T6 with powder coating in available colors (5) Nylon polyamide grade 6 Adjustable Leg (6) Top rail along with Nylon Polyamide grade 6 with end cap is a Round D shaped extrusion made of Aluminium alloy grade 6063-T6 with Powder Coating in available colors, (7) Rubber, (8) Screws & wall Plugs (SS- 316). The top fitting should consist of Matt</u>				
33	3 Cubicles complete including doors with ironmongery as per the female ablutions as per Architect drawing no. 4627-ST3-ARC- 2026.03.03- 102	No	1		
33. C	2 Cubicles complete including doors with ironmongery as per the female ablutions as per Architects drawing no. 4627-ST3-ARC- 2026.03.03- 102	No	1		
34. A	1 Cubicles complete including doors with ironmongery as per the male ablutions as per Architect drawing no. 4627-ST3-ARC- 2026.03.03- 102	No	1		
34. B		No	1		
36	<u>BILL NO 9</u>				
36	<u>FLOOR COVERINGS, PLASTIC LININGS, ETC</u>				

36	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
36	-----		0,0		
36	<u>FLOOR COVERINGS</u>				
36	<u>Rubberised sealed plywood PC R1000/m² delivered to site</u>				
36. A	On floors	m2	28		
37	<u>BILL NO 10</u>				
37	<u>IRONMONGERY</u>				
37	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
37	-----		0,0		
37	<u>SUPPLEMENTARY PREAMBLES</u>				
37	<u>Finishes to ironmongery</u>				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BSSatin bronze lacquered CHChromium plated SCSatin chromium plated SESilver enamelled GEGrey enamelled ASAnodised silver ABAnodised bronze AGAnodised gold ABLAnodised black BBPOLISHED brass PLPolished and lacquered PTEpoxy coated SDSanded		0,0		
37	-----		0,0		
37	<u>HANDLES</u>				
37. A	Set of lever handles (PC sum R850,00 each excluding VAT), delivered to site	No	4		
37	<u>LOCKS</u>				
37. B	Mortice cylinder case lock with key insert and 2 keys	No	4		
37	<u>DOOR CLOSERS</u>				
37. C	EN 2-4 Parallel Arm delayed action door Closer. Push Side Fixing (Parallel Arm Bracket Included) EN2 750-850, EN3 850-950, EN4 950-1100 (code: TS73V PA DC - PAB - SL)	No	4		
38	<u>SUNDRIES</u>				
38. A	Floor mounted door stop	No	8		
38	<u>BATHROOM FITTINGS</u>				
38	<u>All as per the Architect's specifications</u>				
38. B	Double toilet roll holder with spindle system. Double toilet roll holder with spindle system for wall mounting, Stainless Steel, surface satin finished, folded front cover, cylinder lock with standard key. For 2 rolls with max. Ø 120 mm, second roll will be released after consumption of first roll, with spindles, reserve roll not visible. Includes Stainless Steel screws and dowels.	No	10		
38. C	Paper towel dispenser, paper towel dispenser for wall mounting, 0.8 mm Stainless Steel, surface satin finished, folded front cover, cylinder lock with standard key, inspection windows on sides, loading capacity 500- 800 pcs. of paper depending on convolution, incl. Stainless Steel screws and dowels.	No	6		

	molded polypropylene with Microban® antimicrobial additive embedded into the bed surface. Reinforced steel-on-steel hinge mechanism and metal mounting chassis with mounting hardware included. Labelled usage instructions and safety messages in four languages. Optional Braille label available. Contoured changing surface area is 450 sq. in (2903 sq. cm) and comes complete with nylon safety strap and bag hooks. Dual cavity liner dispenser holds approximately 50 KB150-99 bed liners. Concealed pneumatic cylinder and metal mounting chassis provides controlled, slow opening and closing of bed. Polypropylene is easy to clean and resists odors and bacterial growth. Complies with ASTM static load performance requirements when properly installed. Baby changing station body shall be durable, injection-molded polypropylene. Design of unit shall be surface-mounted. Unit shall be equipped with a pneumatic cylinder for controlled opening and closing of bed. Bed shall be secured to metal mounting chassis with a concealed steel-on-steel hinge. No hinge structure shall be exposed on interior or exterior surfaces. Unit shall have mounting hardware included. Unit shall have Microban® antimicrobial embedded into plastic material on the changing surface. Unit shall comply with ADA regulations when properly installed. Bed shall have smooth concave changing area with a nylon safety strap and two hooks for bags or purses. The design and manufacture of Koala products is intended to be compliant with the 2010 ADA Standards for Accessible Design and the 2009 ICC A117.1,				
39. A	Waste bin for wall mounting, 0.8 mm Stainless Steel, surface satin finished. Approximately 23 litre capacity, mounting either with mounting bracket or directly onto the wall,	No	2		
39. B	includes Stainless Steel screws and dowels.	No	6		
39. C	Soap dispenser for wall mounting, manufactured from 0.8 mm Stainless Steel, surface satin finished, folded front cover, cylinder lock with standard key, suitable for liquid soaps and lotions, 1 litre soap tank, push button on front, includes Stainless Steel screws and dowels.	No	6		
39. D	Coat hook in Anodized Antique Gold Finish on zinc die casted body and fine spark texture on pvc parts	No	10		
41	<u>BILL NO 11</u>				
41	<u>METALWORK</u>				
41	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
41	-----		0,0		
41	<u>SUPPLEMENTARY PREAMBLES</u>				
41	<u>Descriptions</u>				
	Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion and chemical expansion bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete The effective fixing length of expansion and chemical expansion bolts is the thickness of material being fixed to the masonry surface Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described		0,0		
41	<u>Aluminium doors, windows, etc</u>				
41	<u>Scope of work</u>				

41	Provide all labour, materials and equipment necessary for the design, supply and fixing of the works described herein, in conformity with the drawings referred to, this specification and AAAMSA specification	0,0		
41	<u>Aluminium work</u>			
41	The architectural aluminium work in windows and doors must carry the Certification Seal of the Association of Architectural Aluminium Manufacturers of South Africa and no items which are not so certified will be accepted on site	0,0		
42	<u>Tender drawings and samples</u>			
42	The tenderer shall submit together with his tender sufficient detailed drawings and samples to illustrate the type of sections he intends to use for all elements of the work, including jamb, sill, head, coupling, beading, etc, waterproofing, ironmongery, etc and fixing method details	0,0		
42	<u>Aluminium sections</u>			
42	Extruded aluminium sections shall be fabricated from alloy 6063 or 6061 in temper T5 or T6 all in accordance with the latest edition of BS EN 755 - "Aluminium and its alloys - extruded rod / bar, tube and profiles"	0,0		
42	Ancillary members such as sills, flashings, infill panels and the like which may be formed from flat sheet material shall be fabricated from aluminium alloy 1200 or 3004 or 5251 of appropriate temper all in accordance with the latest edition of BS EN 573 - "Aluminium and Aluminium Alloys"	0,0		
42	The extrusions must be free from copper, hammer marks or other defects. Under no circumstances is mild steel, brass or any other metal containing copper to be used where it will come into direct contact with the aluminium	0,0		
42	After manufacture the aluminium sections are to be cleaned in an approved manner to ensure uniform appearance and it is to be protected during transport to site and during installation with a strippable approved plastic tape or wrapping as required, which is only to be removed once the "rough and wet" trades have finished with their work	0,0		
42	All frames are to be true and square. Joints are to be mechanically joined or welded in accordance with the best practice. Assembly screws and bolts are to be stainless steel and fixing screws are to be cadmium plated	0,0		
42	The contractor shall provide all the necessary sub-frames, structural supports, lugs, brackets and cleats necessary to ensure the stable fixing of window and door sections to surrounding structures	0,0		
42	<u>Anodising</u>			
42	All architectural anodising shall be in strict accordance with SANS 999 of colour as described with a nominal thickness of between 60 - 80 microns	0,0		
42	The specific purchasing conditions contained in SANS 999 shall be deemed to be incorporated in this specification	0,0		
43	<u>Powder coating</u>			
43	All architectural powder coating shall be in strict accordance with SANS 1796 and the powder applied in strict accordance with SANS 1578 of colour as described with a nominal thickness of between 60 - 80 microns	0,0		

43	The specific purchasing conditions contained in SANS 1796 shall be deemed to be incorporated in this specification	0,0		
43	The powder manufacturer shall issue a powder guarantee of a minimum of 15 years. The specific conditions contained in this guarantee shall form part of the powder coating process and may only be applied by an approved powder applicator	0,0		
43	All aluminium shall be pre-treated in accordance with SABS 1796 so as to ensure excellent adherence properties	0,0		
43	<u>Coil coating (painted aluminium sheet)</u>			
43	All coil coating of architectural aluminium flat sheet products shall be in strict accordance with :	0,0		
43	ASTM D2247 in respect of Humidity Resistance	0,0		
43	ASTM G53 and ASTM D3361 in respect of Accelerated Weathering	0,0		
43	ASTM B117 in respect of Acid Salt Spray	0,0		
43	ASTM D4145 in respect of Formability	0,0		
43	ASTM D3363 in respect of Pencil Hardness	0,0		
43	ASTM D523 in respect of Specular Gloss	0,0		
43	ASTM D2794 in respect of Reverse Impact	0,0		
43	All coil coated architectural aluminium flat products are to be provided with a manufacturer's extended guarantee in respect of substrate and painted surface (20 years subject to manufacturer's performance guarantee conditions)	0,0		
43	<u>Written certificates</u>			
43	Tenderers are advised that written certificates of conformance will be required in terms of all the references as referred to above	0,0		
44	<u>Shop drawings, details and calculations</u>			
44	The successful tenderer will be required to prepare full drawings incorporating plans, elevations, sections, details, etc for approval by the architects and/or structural engineers, prior to putting any work in hand	0,0		
44	Copies of the approved drawings shall be supplied to the architects and any other subcontractor whose work is affected. Notwithstanding any approval of these details, the successful contractor shall remain responsible for the design and for ensuring that the dimensions, details and workmanship results in the correct performance and assembly of the work.	0,0		
44	<u>Fixing</u>			
44	Windows and doors must be fixed by the manufacturer into pre-formed openings including all necessary brackets, anchors, other fastening devices, spacers, timber grounds, etc and must be perfectly plumb and be strutted and braced as necessary to prevent distortion	0,0		
44	<u>Responsibility</u>			
44	The successful tenderer will be responsible for the structural, general detail and design of the works described, which is to be in accordance with the overall architectural design parameters as outlined on the drawings. The structural design must in all respects comply with the tolerances and design requirements set out in this specification	0,0		
44	It will be the contractor's responsibility to comply in all respects with Local Authority and Central Government regulations and to obtain all the necessary approvals as required from the respective Authorities.	0,0		

44	Notarized certificates of compliance must be provided with shop drawings for the architect's approval as requested	0,0		
44	<u>Warranty and indemnity</u>			
	The tenderer must undertake to provide when called upon an acceptable warranty to guarantee the following:-That all components are to be guaranteed for 10 years after installation. That the standards of workmanship, materials and tolerances are in accordance with this specification and with the relevant SABS and/or BS Standards where applicable. That the works described has been designed to comply with the requirements set out herein. That the use of all materials included in the total construction shall take due cognisance of the manufacturer's warranty, recommendation and specification for their respective uses and shall where applicable be in accordance with the relevant SABS and/or BS Standards.			
44		0,0		
45	<u>Performance standards</u>			
	Thermal movement (where applicable) The contractor shall provide allowances for free and noiseless vertical and horizontal thermal movement due to the contraction and expansion of component parts, for a temperature range of not less than -10°C to +35°C. Buckling, opening of joints, glass breakage, undue stress on fasteners, failure of sealants or any other detrimental effects due to the thermal movement of component parts shall not be permitted			
45		0,0		
	Deflection The deflection of any framing member in a direction normal to the plane of the wall when subjected to its full design load, shall not exceed 1/175 of its clear span or 20mm, whichever is less. The vertical deflection of any horizontal member supporting glass, when carrying its full design dead load, shall not exceed 1/300 of the clear span of the member or 8mm, whichever is less. The deflection of any member in a direction parallel to the plane of the wall when carrying its full design load, shall not exceed 3mm			
45	Fittings Glazing beads, gaskets and glazing compounds shall be of materials that are compatible with the aluminium finishes, the glass and other glazing materials. Putty glazing is not permitted	0,0		
45		0,0		
	Hardware, bearing devices and fittings in general must be of materials resistant to atmospheric corrosion for all inland installations, but when installed in highly corrosive environments, such as coastal or close proximity to the sea, all said fittings must be made from non-corrosive materials and shall be of a design so as to be accessible for adjustment, repair and replacement after the windows etc have been installed Fastenings shall be of material which is compatible with aluminium and aluminium finishes			
45		0,0		
	Primary anchorage Anchorage to the structure shall be done by approved methods and in strict accordance with the approved shop drawings Embedded concrete inserts supplied by the contractor shall be used as required for the anchorage. The timely and adequate supply of cast-in items is entirely the responsibility of the contractor			
45		0,0		

	Tolerances The contractor is to take into account the building tolerances prior to manufacture commencing and no responsibility will be accepted by the architects in respect of lack of fit of any of the window and door assemblies				
46			0,0		
46	<u>Pointing</u>				
	All external windows and doors shall be waterproofed with an approved wax impregnated sealing strip between the aluminium frame and the structure, and in addition shall be pointed all round on both sides with an approved two-part polysulphide liquid polymer sealing compound				
46			0,0		
46	<u>Ironmongery</u>				
46	All ironmongery is to be best quality of the respective kinds Ironmongery not described but necessary for the works is to be included in the tender with sufficient supportive detail and references for approval by the architect together with the tender		0,0		
46			0,0		
46	<u>Glazing</u>				
	Windows and doors are to be glazed with glass as described herein. Glazing may be either factory or site glazed and must be clean and free from defects on completion of glazing				
46	Glazing shall be executed strictly in conformance with glass manufacturer's recommendations and all in accordance with the National Regulations Part N, SANS 10137, SANS 10400 and SANS 1263		0,0		
46	All safety glazing materials (individual panes) shall be permanently marked. Such marking to be visible after installation (glazing)		0,0		
46	The successful tenderer shall submit the AAAMSA Glass & Glazing Certificate confirming that glazing has been installed in accordance with SANS 10137 ensuring that Safety Glazing Materials have been installed and individually marked in the mandatory areas		0,0		
46			0,0		
46	A warranty is to be provided that the manufacturer of the laminated safety glass and / or the hermetically sealed glazing units warrants the product against delamination and colour degradation for a period of not less than 5 (five) years		0,0		
47	In the case of structural glazing, written proof is to be provided that all stages of fabrication and installation have been executed with disciplined quality assurance in accordance with the relevant part of SABS ISO9000		0,0		
47	Written confirmation of compatibility of structural sealant with extrusion surface, glazing tape and glass is to be supplied by the structural sealant manufacturer together with the regular relevant test reports regarding the adhesion of the sealant to the aluminium frame in accordance with ASTM/C 794-80 (Standard Test for Adhesion-in-Peel of Elastomeric Joint Sealants)		0,0		
47	<u>Servicing</u>				
	When necessary, all protection plastic tape or wrapping shall be removed and the windows and doors shall be thoroughly cleaned and tested, serviced with all necessary adjustments and / or repairs carried out before handing over the Works				
47			0,0		
47	<u>Tender rates</u>				

	The tender rates are to include for the design, manufacture, powder coating, labour and material for the windows, doors, etc including all accessories, necessary sub-frames, structural supports, brackets, etc ironmongery, protective tape/wrapping, glass, sandblasting, sealing between units and between units and structures, packing, cartage, delivery to site and erection including all shop drawings, samples, etc items, work, etc not specifically stated here or shown on the drawings but generally required to complete the works and cost implications of the Preliminaries applicable to the principal agreement				
47				0,0	
	The tenderer shall accept full responsibility for the accuracy of his measurement of quantities etc of all the components and the completed works shall therefore not be subject to remeasurement. Only authorised variations from this bill of quantities will be subject to adjustment			0,0	
47	<u>References</u>				
	The references given in the descriptions are to the respective types of windows, doors, etc on the architect's schedule drawings included at the back of this bill of quantities			0,0	
47	-----			0,0	
48	<u>GALVANISED PRESSED STEEL DOOR FRAMES</u>				
	<u>1,6mm Thick double rebated frame suitable for half maxi brick walls with 1,5 pairs of 100mm steel hinges per door leaf and striking plate</u>				
48					
48. A	Door frame for door size 813 x 2 100mm high	No		2	
	<u>1,6mm Thick double rebated frame suitable for one maxi brick walls with 1 pair of 100mm steel hinges and striking plate</u>				
48					
48. B	Door frame for door size 813 x 2 100mm high	No		2	
	<u>1,6mm Thick double rebated frame suitable for 320mm cavity walls with 1 pair of 100mm steel hinges and striking plate</u>				
48					
48. C	Door frame for door size 1 600 x 2 032mm high	No		4	
48	<u>ALUMINIUM WINDOWS, DOORS, ETC.</u>				
48	<u>Epoxy polyster powder coated "Matt Charcoal" vent grill</u>				
48. D	Aluminium louvre type Louvres size 600 x 900mm	No		2	
50	<u>BILL NO 12</u>				
50	<u>PLASTERING</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill			0,0	
50	-----			0,0	
50	<u>SCREEDS</u>				
50	<u>Screeds on concrete</u>				
50. A	30mm Thick screeds	m2		17	
50. B	Average 75mm thick on floors to falls and currents	m2		20	
50	<u>INTERNAL PLASTER</u>				
50	<u>One coat cement plaster on brickwork</u>				
50. C	On walls	m2		12	
50. D	On narrow widths	m2		1	
50	<u>EXTERNAL PLASTER</u>				
	<u>One coat cement plaster on brickwork to a smooth and even surface</u>				
50					
50. E	On walls	m2		12	
50. F	Plaster surround and drip moulding to window or door head	m		1	

50	<u>Cement plaster on concrete</u>				
50. G	On projecting and isolated beams	m2	6		
51	<u>BILL NO 13</u>				
51	<u>TILING</u>				
51	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
51	-----		0,0		
51	<u>SUPPLEMENTARY PREAMBLES</u>				
51	<u>Descriptions</u>				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors, etc shall be deemed to include 1:3 plaster bedding		0,0		
51	-----		0,0		
51	<u>WALL TILING</u>				
	<u>600 x 600mm Porcelain tiles (PC Sum R350,00/m² delivered to site) fixed with suitable adhesive to manufacturers recommendations to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
51	On walls	m2	207		
51. A					
	<u>120 x 120mm Porcelain tiles (PC Sum R400,00/m² delivered to site) fixed with suitable adhesive to manufacturers recommendations to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
51	On walls	m2	2		
51. B					
51	<u>FLOOR TILING</u>				
	<u>600 x 600mm Porcelain tiles (PC Sum R450,00/m² delivered to site) fixed with suitable adhesive to manufacturers recommendations to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
51	On floors	m2	45		
51. C					
52	<u>SUNDRIES</u>				
	<u>Brass corner protectors, stair nosings, expansion joint strips, etc</u>				
52	Kirk Marketing Code ASE120 aluminium straight edge trim	m	35		
52. A					
52	<u>BUDGET ALLOWANCES</u>				
	Allow the budgetary amount of R10 000,00 (Ten Thousand Rand) NET for attic stock	Item	1,00	10000,00	10000,00
52. B					
54	<u>BILL NO 14</u>				
54	<u>PLUMBING AND DRAINAGE</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
54	-----		0,0		
54	<u>SUPPLEMENTARY PREAMBLES</u>				
54	<u>uPVC pipes and fittings</u>				
	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		0,0		
54					
54	<u>Copper pipes</u>				

54	Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled half hard), Class 2 (half hard) and class 3 (heavy walled half hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground		0,0		
54	Reducing fittings Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only largest end or branch size is give. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained		0,0		
54	Exposed concrete surfaces Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster		0,0		
55	Excavations No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks"		0,0		
55	Laying, backfilling, bedding, etc of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with the manufacturer's instructions Where no manufacturer's instructions exist pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following: SANS 1200L:Medium-pressure pipelines LD:Sewers LE:Stormwater drainage Pipe trenches etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SANS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SANS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be Class B bedding.		0,0		
55	Flush pans Flush pans shall have straight or side outlets and "P" or "S" traps as necessary		0,0		
55	Stainless steel basins, sinks, wash troughs, urinals, etc Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable		0,0		
55	Waste unions Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings		0,0		
55	-----		0,0		
55	<u>SOIL DRAINAGE</u>				
55	<u>uPVC pipes</u>				
55. A	110mm Pipes laid in and including trenches not exceeding 1m deep	m	60		
55. B	110mm Pipes laid in and including trenches exceeding 1 and not exceeding 2m deep	m	0,0		
56	<u>Extra over uPVC pipes for fittings</u>				
56. A	110mm Bend	No	16		
56. B	110mm Junction	No	18		
56. C	110mm Access bend	No	18		

56. D	110mm Access junction	No	5		
56	<u>Sundries</u>				
56. E	100mm Cast iron "ABC" cleaning eye	No	1		
56	<u>Testing</u>				
56. F	Testing drainage pipe system	Item	1,00		
56	<u>PLUMBING</u>				
56	<u>RAINWATER DISPOSAL</u>				
56	<u>"DPI" uPVC</u>				
56. G	110mm Diameter rainwater pipes	m	7		
56	<u>Extra over uPVC pipes for fittings</u>				
56. H	110mm Bend	No	3		
56	<u>Siphonic roof drainage outlet complete with removable dome strainer</u>				
56. I	110mm 90 Degree side outlet with dome grating	No	1		
56	<u>SANITARY FITTINGS</u>				
56. J	Raised Paraplegic close couple combo, size 443mm wide x 855mm high x 731mm deep including 2-piece Grab Rails Combo (Dog-Leg Grab Rail and Cistern Grab Rail), including toilet seat	No	2		
56. K	Comfort rimless wall hung pan, size 355mm wide 365mm high 470mm deep, including soft close seat	No	8		
56. L	Concealed HDPE Tank (HIGH-DENSITY POLYETHYLENE) Cistern only, includes white dome covers, Size 455mm wide 762 wide 80mm deep. Actuator plate eslewhere.	No	8		
57. A	ABS plastic black actuator plate, size 245mm wide x 165mm high x 12mm deep	No	8		
57. B	Back inlet urinal with fixing kit and internal spreader, size 360mm wide x 557mm high x 337mm deep	No	2		
57. C	Bright White BW010 rectangular wall hung basin. Supply and Install Bright White BW010 solid surface thermoformed by approved fabricator	No	6		
57. D	Self-closing chrome pillar tap for cold water or pre-adjusted water with maximum flow rate of of 5l/min	No	6		
57	<u>ALLOWANCES</u>				
57. E	Allow the allowance of R20,000.00 (Twenty Thousand Rand)				
57. F	NET for wastes, traps, etc. to be executed by a sub-contractor	Item	1,00	20000,00	20000,00
57. G	Add for profit	%IT			
57. G	Allow for attendance	Item	1,00		
59	<u>BILL NO 15</u>				
59	<u>GLAZING</u>				
59	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
59	-----		0,0		
59	<u>MIRRORS</u>				
59	<u>Polished bevel-edge mirror fixed to wall with dome mirror screws</u>				
59. A	Mirror 1 880 x 1 300 mm high with 8 screws	No	1		
59. B	Mirror 1 620 x 1 300mm high with 6 screws	No	1		
59. C	Mirror 900 x 1 300mm high with 4 screws	No	1		
60	<u>BILL NO 16</u>				
60	<u>PAINTWORK</u>				
60	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill		0,0		
60	<u>COLOURS</u>				
60	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		0,0		

60	-----		0,0		
60	<u>PAINTWORK, ETC TO NEW WORK</u>				
60	<u>ON FLOATED PLASTER</u>				
60	<u>Prepare and apply one coat alkali resistant plaster primer and two top coats</u>				
60. A	On partitioning	m2	83		
60. B	On external walls	m2	179		
60	<u>ON METAL</u>				
60	<u>Prepare and apply one coat primer for galvanised iron and two coats universal undercoat and two coats water based enamel</u>				
60. C	On door frames	m2	7		
60	<u>ON WOOD</u>				
60	<u>Prepare and apply primer for wood and one coat undercoat and two coats water-based enamel</u>				
60. D	On doors	m2	14		
60	<u>PAINTWORK, ETC TO PREVIOUSLY PAINTED WORK</u>				
60	<u>ON INTERNAL FLOATED PLASTER SURFACES</u>				
61	<u>Prepare and apply one coat alkali resistant plaster primer and two top coats</u>				
61. A	On internal walls	m2	80		
61	<u>ON WOOD</u>				
61	<u>Three coats of interior/exterior timber varnish water based</u>				
61. B	Doors	m2	6		
61. C	Door frames	m2	5		
63	<u>BILL NO 17</u>				
63	<u>PREFABRICATED MOBILE UNIT INSTALLATION</u>				
63	Specifications:		0,0		
	comprising pre-painted steel panels filled with 40 mm polyurethane foam insulation. Structural designs must be reviewed by qualified structural engineers and appropriate structural certification will be issued for the system.2. FloorsVinyl sheeting floor finish with the following specifications:-2 mm thickness, beige – sandalwood finish - Slip resistance: EN 13893 Class DS - Reaction to fire: EN 13501-1 Class Bfl-S1 - ASTM E662: <450 (1.5–2.0 mm) - ASTM E648: Class 1 (1.5–2.0 mm) - Abrasion resistance: EN660-2 Group M - Indentation residual: ASTM F970 (modified), static load 750 psi - Electrical behaviour: EN 1815 ≤2 kV, classified as antistatic3. Internal and External Walls3.1 Base Rails – Concrete Floors- External walls: 1.6 mm thick x 185 mm girth galvanised Z-section base rail- Internal walls: 1.6 mm thick x 60 mm girth with angle bottom rail- Base rails installed with mastic damp-proof seal between rail and concrete foundation- All rails manufactured from galvanised pre-painted steel- All external walls must be structurally designed to accommodate the imposed loads from external timber cladding, including fixings and substructure, in accordance with relevant standards3.2 Top Rails- External wall panels joined and supported using 30 × 46 × 100 mm U-channel- Material: 1.6 mm Z275 galvanised sheeting -Fixed to panels with aluminium rivets- Finish: powder coated3.3 Pre-Painted Galvanised Sheets - Z275 hot dipped galvanised sheets - Nominal thickness: 0.5 mm-Interior surfaces finished with single backing coat – 8 microns dry film thickness3.4 Polyurethane Panels- Panel thickness: 40 mm- Polyurethane				
66			0,0		

66	<u>Supply of prefabricated unit</u>				
66. A	Supply cost of mobile ablution unit as per Architect's drawing no. 4627-ST3-ARC-2026.03.03 -101	No	1		
66. B	Supply cost of mobile ablution unit as per Architect's drawing no. 4627-st3-arc-2026.03.03	No	1		
68	<u>BILL NO 18</u>				
68	<u>PROVISIONAL SUMS</u>				
68	NOTE: The following provisional sums are for work to be carried out by selected sub-contractors in terms of Clause 21 of the Principal Building Agreement NOTE: Tenderers are referred to the definition of general attendance on nominated or selected sub-contracts given in Clause B7.3 of the preliminaries NOTE: All provisional and prime cost sums are NET i.e. there is no cash discount		0,0		
68	-----		0,0		
68	<u>SIGNAGE</u>				
68. A	Allow the provisional sum of R15,000.00 (Fifteen Thousand Rand) NET for signage to be executed by a sub-contractor	Item	1,00	15000,00	15000,00
68. B	Add for profit	%IT			
68. C	Allow for attendance	Item	1,00		
68	<u>FACADE CLADDING</u>				
68. D	Allow the provisional sum of R90,000.00 (Ninety Thousand Rand) NET for facade cladding to be executed by a sub-contractor	Item	1,00	90000,00	90000,00
68. E	Add for profit	%IT			
68. F	Allow for attendance	Item	1,00		
68	<u>URINAL SENSORS</u>				
68. G	Allow the provisional sum of R8,000.00 (Eight Thousand Rand) NET for urinal sensors to be executed by a sub-contractor	Item	1,00	8000,00	8000,00
68. H	Add for profit	%IT			
68. I	Allow for attendance	Item	1,00		
69	<u>LOUVRES</u>				
69. A	Allow the provisional sum of R20,000.00 (Twenty Thousand Rand) NET for louvres to be executed by a sub-contractor	Item	1,00	20000,00	20000,00
69. B	Add for profit	%IT			
69. C	Allow for attendance	Item	1,00		
70	<u>BUDGET ALLOWANCES</u>				
70	<u>WET SERVICES</u>				
70. A	Allow the budgetary amount off R20,000.00 (Twenty Thousand Rand) NET for wet services to be used as directed by the Architect and deducted in whole or in part if not required	Item	1,00	20000,00	20000,00
70	<u>BUILDER'S WORK</u>				
70. B	Allow the budgetary amount off R20,000.00 (Twenty Thousand Rand) NET for builder's work to be used as directed by the Architect and deducted in whole or in part if not required	Item	1,00	20000,00	20000,00
70	<u>SUNDRY ALTERATIONS</u>				
70. C	Allow the budgetary amount off R30,000.00 (Thirty Thousand Rand) NET for sundry alteration work to be used as directed by the Architect and deducted in whole or in part if not required	Item	1,00	30000,00	30000,00
72.1	PRELIMINARIES	Page	9	0	
72.2	ALTERATIONS	Page	13	0	
72.3	EARTHWORKS	Page	16	0	

72.4	CONCRETE, FORMWORK AND REINFORCEMENT	Page	21	0	
72.5	MASONRY	Page	24	0	
72.6	WATERPROOFING	Page	27	0	
72.7	CARPENTRY AND JOINERY	Page	30	0	
72.8	CEILINGS AND PARTITIONING	Page	36	0	
72.9	FLOOR COVERINGS	Page	37	0	
72.10	IRONMONGERY	Page	41	0	
72.11	METALWORK	Page	50	0	
72.12	PLASTERING	Page	51	0	
72.13	TILING	Page	54	0	
72.14	PLUMBING AND DRAINAGE	Page	59	0	
72.15	GLAZING	Page	60	0	
72.16	PAINTWORK	Page	63	0	
72.17	PREFABRICATED UNITS	Page	68	0	
72.18	PROVISIONAL AMOUNTS	Page	72	0	
72	SUB-TOTAL	ST	0,00		Sub Total
73.1	Bills of Quantities	Page	73	0	
73	Electrical Works as per Annexure A	Item	1,00		
73	Sub Total	ST	0,00		Sub Total
	Contingencies	Item	1,00	160000,00	160000,00
73	Carried to form of tender	ST	0,00		Sub Total

ELECTRICAL INSTALLATION (GENERAL ITEMS)						
(Note : These prices shall be firm and not subject to price adjustment)						
Item	Description	Unit	QTY	Supply Rate	Install Rate	Amount
1	SITE ESTABLISHMENT					
1.1	Camp and fencing	sum	1			
1.2	Office	sum	1			
1.3	Office Equipment	sum	1			
1.4	Store	sum	1			
1.5	Workshop	sum	1			
1.6	Other	sum	1			
2	ADMINISTRATIVE					
2.1	Site personnel	sum	1			
2.2	Supervisory staff	sum	1			
2.3	Guards	sum	1			
2.4	Transport	sum	1			
2.5	Ablution Facilities	sum	1			
2.6	Insurance	sum	1			
2.7	Cost of Guarantee	sum	1			
2.8	Running costs e.g. telephone, electricity, cleaning, services, printing, stationery, etc.	sum	1			
2.9	Occupational Health and Safety File	sum	1			
2.10	Allowance for liaison with main contractor	sum	1			
3	GENERAL COSTS					
3.1	Allow an amount if required for expenses incurred to tender	sum	1			
3.2	Loading and off loading of material and equipment	sum	1			
3.3	Setting out of Works.	sum	1			
3.4	Cleaning of site upon completion of Contract.	sum	1			
3.5	Critical Path/Schedule.	sum	1			
3.6	Marking up "As Built" drawings	sum	1			
3.7	Test and commissioning of complete Works.	sum	1			
3.8	Inspection and handing over.	sum	1			
3.9	Certificates of Compliance for complete installation	sum	4			
3.10	3x Operation and Maintenance manuals including soft copy on USB	sum	1			
3.11	Allowance for working after hours and weekends	sum	1			
3.12	Other					
3.13						
Total Bill No. 1 Carried forward to summary page						

LV RETICULATION AND DISTRIBUTION						
(Note : These prices shall be firm and not subject to price adjustment)						
Item	Description	Unit	QTY	Supply Rate	Install Rate	Amount
1	LV CABLES					
	Supply and installation of the following XLPE insulated, PVC Bedded, Galvanised Steel Wire armour with earth continuity conductors in the Armour, PVC Sheath copper cables to SABS 0150, installed vertically or horizontally in cable ladder/cable tray/trunking etc. (Cable lengths to be confirmed on site by means of measurement prior to placing of order.)					
1.2	4mm ² , 3-core, XLPE/SWA, copper cables	m	80			
1.6	4mm ² , 3-core	ea.	4			
3	DISTRIBUTION BOARDS & SWITCH GEAR					
	Provisional Sums for the supply, installation and/or modification of the following distribution boards as specified and on schematic diagrams and connection of all circuits and cables.					
3.1	Supply and install 40A 230V 9 way DB	ea.	2			
	Supply, test, commission and provide a COC for circuit breakers of the following sizes:					
3.7	Supply and Install a 30A, 230V, 5kA circuit breaker	ea.	2			
3.8	Supply and Install a 20A, 230V, 5kA circuit breaker	ea.	12			
3.9	Supply and Install a 10A, 230V, 5kA circuit breaker	ea.	2			
3.9	Supply & install 100A 1 phase kWh din rail digital meters	ea.	4			
6	WIRING CHANNEL					
	Supply & installation of galvanised wireways complete with covers and all accessories to the engineer's specification, as required. Complete with purlin clips and maximum 1.6m threaded rod mounted at 4m inside interstitial space					
	Supply & installation of galvanised wireways complete with covers and all accessories to the engineer's specification, as required.					
6.1	Heavy Duty Cable Ladder - 150mm x 50mm	m	80			
6.2	T-piece 3 way- 200mm	ea.	1			
6.3	Bend - 200mm	ea.	4			
6.4	Elbow - 200mm	ea.	2			
6.7	Hangers	ea.	55			
Total for Bill No. 2 Carried forward to summary page						

ELECTRICAL SMALL POWER INSTALLATION						
(Note : These prices shall be firm and not subject to price adjustment)						
Item	Description	Unit	QTY	Supply Rate	Install Rate	Amount
1	CONDUIT					
	Conduit, installed, chased in walls or built into concrete or surface mounted or in ceiling voids or in open roof spaces in the following sizes					
1.1	20 mm diameter PVC conduit - Power	m	300			
1.2	20 mm diameter PVC conduit - Lighting	m	200			
1.3	20mm Bosal Conduit - Lighting	m	10			
1.4	20mm Bosal Conduit - Power	m	10			
1.5	20mm PVC Sprague	m	10			
2	DRAW BOXES					
	PVC draw and outlet boxes installed surface , or chased into brick walls or built into concrete or installed in cleanroom					
2.1	100mm x 50mm X 50mm deep	ea.	2			
2.2	100mm x 100mm x 50mm deep	ea.	3			
2.3	PVC 100mm x 100mm x 50mm deep with blank cover plate	ea.	3			
2.4	PVC 100mm x 100mm x 50mm surface mounted outlets box	ea.	14			
2.8	Universal galvanized round box	ea.	8			
2.9	Universal PVC round box	ea.	52			
2.10	Universal galvanized round box with cover and cord grip gland	ea.	13			
3	SWITCHING					
	Supply and install light switches, flush or surface mounted in draw boxes complete with cover plates which fits into					
3.1	230V AC, 10A, surface mounted NC contactor mounted in a junction box with 2x cable glands	ea.	20			
3.2	Occupancy sensor recessed mounted infrared with 7m range - S1 (Eagle Lighting)	ea.	20			
4	SOCKET OUTLETS					
	16A, 3-pin switched socket outlets surface/flush mounted in draw boxes/Wonda boxes/ power skirting/in cleanroom					
4.1	Single SSO - Standard and Slimline combination (SANS 164-1 & SANS 164-2)	ea.	3			
4.5	5A Unswitched socket outlet	ea.	51			
5	ISOLATORS					
	Supply and installation of surface/flush/in ceiling mounted isolators in 100mmx100mm x 50mm draw boxes/Wonda Boxes					
5.5	20A, 2-pole, surface mounted isolator	ea.	14			
6	CONDUCTORS FOR SMALL POWER					
	Supply and installation of the following conductors for small power installed in conduits, ceiling voids or surface mounted.					
6.1	4mm² surfix	m	300			
7	CONDUCTORS FOR LIGHTING					
	Supply and installation of the following conductors for small power installed in conduits, ceiling voids or surface mounted.					
7.1	2.5mm² surfix	m	200			
7.3	2.5mm² single core house wire	m				
8	LIGHT FITTINGS					
	Remove, reinstall and connect all light fittings complete with lamps, gear, etc.					
8,28	Type D1 - 6W LED surface mounted downlighter with GU10 batter back up lamp Eagle Lighting (D/LIGHT SURF RND 7W GU10 IP54 BLK LGW9013/04)	ea.	51			
8,29	2300W Stainlesssteel hand dryers	ea.	14			
Total for Bill 3 carried forward to summary page						

SUMMARY						
Bill No	Description					Amount
1	ELECTRICAL INSTALLATION (GENERAL ITEMS)					
2	LV RETICULATION AND DISTRIBUTION					
3	ELECTRICAL SMALL POWER INSTALLATION					
	TOTAL TENDER PRICE FOR ELECTRICAL INSTALLTION, EXCLUDING VAT					

Disclaimer

This Excel version of the Bills of Quantities is provided for convenience and to assist tenderers with pricing. The official and binding document remains the hard copy tender document of the Bills of Quantities. While care has been taken in the preparation of this Excel file, it is the responsibility of each tenderer to verify all quantities, descriptions, and items against the official PDF/hard copy document. Any discrepancies between the Excel and PDF/hard copy versions shall not be grounds for claims or adjustments, and no liability will be accepted for any errors, omissions, or inconsistencies in this Excel document. By using this Excel file, the tenderer acknowledges and accepts this disclaimer.

George Airport Ablutions
Builders work Bills of Quantities
Final Summary

No	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Builders Work		1		
	Electrical Works		1		
	Sub Total				
	Contingencies		1	160 000,00	160 000,00
	Sub Total				
	Value Added Tax	%	15%		
	Total Carried to Form of Tender				