

ERRATUM 1

INVITATION TO BID

SASSA:13-24-FAC-NW TERMS OF REFERENCE FOR SUPPLY, DELIVERY AND ASSEMBLING OF CHRO-MADEK PREFABRICATED OFFICE AND A GUARD HOUSE AT COLIGNY OFFICE NORTH WEST REGION.

NB: kindly note that the South African Social Security Agency (SASSA) North-West Region has discovered an error on the Bill of Quantities.

1. The total tender price on the Bill of Quantities made reference to a different office than the Coligny Office. This has been corrected.

The closing date remains **29 November 2024**

**The BID PROPOSALS MUST BE DEPOSITED IN THE BID BOX SITUATED AT
SASSA HOUSE (MEGA CITY BUILDING)
CORNER SEKAME AND DR JAMES MOROKA
MEGA CITY MMABATHO 2735
2745**

**CLOSING DATE: 29 NOVEMBER 2024
TIME : 11:00**

TECHNICAL ENQUIRIES CAN BE DIRECTED TO:

**CONTACT PERSON : Mr Isaac Lipharama
CONTACT NUMBER : 018 397 3429
E-MAIL ADDRESS : isaaci@sassa.gov.za**

SUPPLY CHAIN MANANAGEMENT ENQUIRIES CAN BE DIRECTED TO:

**CONTACT PERSON : Mr Lucky Moloto
CONTACT NUMBER : 018 397 3426
E-MAIL ADDRESS : luckyymo@sassa.gov.za**



Senior Manager: Lucky Moloto

Date: 14/11/2024

ANNEXURE A

BILLS OF QUANTITIES

FOR COLIGNY LOCAL OFFICE

ITEM NO	UNIT	QUANTITY	RATE	AMOUNT
<u>BILL NO. 1</u>				
<u>PRELIMINARIES AND GENERAL</u>				
<u>User note</u>				
<i>Currency</i>				
<i>Make it clear in which currency the pricing shall be where amounts are "carried forward", "brought forward" or elsewhere</i>				
<i>Preparation of Bill No 1</i>				
<i>The compiler of the bills of quantities is to prepare Bill No 1 (Preliminaries) in terms of and with reference to the relevant building agreement (building contract). Insert the following clause</i>				
<i>Applicable method of measurement</i>				
<i>It is to be clearly stated that the applicable method of measurement is the Standard System of Measuring Building Work (seventh edition) for projects within South Africa and the Standard Method of Measuring Building Work for Africa 2015 (first edition) for projects elsewhere in Africa. The content of both of these documents are identical</i>				
<i>Preambles for trades</i>				
<i>Insert the following clause where the Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors is utilised</i>				
<u>PREAMBLES FOR TRADES</u>				
The Model Preambles for Trades 2017 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 said Model Preambles and in any supplementary preambles				
<u>User note</u>				
<i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i>				
<i>Insert the following clause</i>				
<u>ABBREVIATED DESCRIPTIONS</u>				

The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions when read in conjunction with the applicable measuring system and the relevant preambles and/or specifications, shall represent the full descriptions. However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practise

1. Plant, Equipment, sheds and offices

Item

1

The Contractor shall provide, maintain and remove on completion: a) All plant, equipment, scaffolding, tools and the like required by the Contractor for the due and proper fulfilment of the works. b) Temporary sheds for the proper storage of materials and the use of the Contractors workers.

2. Main noticeboard

Item

1

The Contractor shall provide a main noticeboard of an approved design with the title of the project and the names of the Employer, the Project Manager, the Agent and the Contractor sign written thereon. The project manager shall instruct the Contractor where the board is to be erected.

3. Electricity and Lighting

Item

1

The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of any portion of the Works and provide electric power for any purpose required in connection with Works, including for all electric light and power required by all Sub-Contractors. The Contractor shall give all notices and pay all fees in connection with temporary electrical connections and pay for all electricity consumed.

4. Toilets

Item

1

The Contractor shall provide separate mobile ablution facilities including toilet paper and hand wash soap for the workers, consultants and visitors and shall maintain the same in a thoroughly clean and tidy condition.

5. Site Security-Works Information

Item

1

To maintain the integrity of the site during construction, it shall be necessary to implement security measures applicable to Contractor's employees. It is expected of the Contractor's Site Supervisors to exercise control over their staff and maintain order. The Contractor shall take all appropriate measures for general site security and shall ensure that the following requirements are always adhered to: a) All workers to be in company overalls, safety helmet, boots, etc b) SASSA shall not accept any responsibility for the theft or damage to the Contractor's equipment while on site. It is expected that the Contractor shall provide own site security service.

6. Occupational Health and Safety Act

Item

1

The contractor shall for the duration of this contract be deemed to be mandatory SASSA for the purpose of the Occupational Health and Safety Act No.85 of 1993, and he shall prior to taking occupation of the site satisfy SASSA by means of written representations that he has fully complied with the relevant requirement of the said act. Acceptance by SASSA of the Contractors written representations in terms of the above shall constitute an agreement in writing to the arrangements and procedures between the parties to ensure compliance by the contractor with the provision of the act referred to therein, for the purpose of section 37(2) of the said act. SASSA shall at all times have the right to summarily suspend the performance of the Contractor hereunder pending compliance by the Contractor with any requirement regulation and direction referred to. SASSA shall be entitled to set off against any amount owed by SASSA to the contractor hereunder any loss or damage suffered by it as a results of the suspension of the contractors performance in the circumstances envisaged above.

7. Safety Helmets and Protective Clothing

Item

1

The Contractor shall take all necessary steps to ensure that all workmen employed on the Works comply with regulations regarding the wearing of safety helmets and protective clothing. The Contractor shall provide and keep on site an adequate supply of clean safety helmets and protective clothing for the use of all Employer's agents and all authorized visitors. Notice board shall be erected warning all workmen and visitors to wear safety helmets on or about the Works.

8. Construction instructions

Item

1

Contract instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor. The Contractor shall supply and have available at the site of the works, the following site books: The Contractor shall supply and have available at the site of the works, the following site books: a) Construction Instruction Book: Receiving and recording instructions in a suitable A4 size triplicate book kept on site. Instructions issued shall be recorded by the Architect or other Employer's agent to whom the delegated Authority in the book. b) Daily Record Book The contractor shall record in triplicate in a suitable A4 size triplicate book kept at the site, a daily record book of work done , all site visit by the Project manager and other professional personnel and all events affecting the Works, such as progress, issue of plans ,breakdown of machinery, etc. The labour , plant and material on site shall be recorded as well as work performed. Entries must be made by the contractor and must be signed and forwarded to the Principal Agent for his counter-signature on a daily basis. Copies of these records shall be for the Architect, Quantity Surveyor and Contractor.

9. Guarantees, Maintenance Manuals and Compliance Certificates

Item

1

The Contractor shall obtain and hand over to the Project Manager on Practical Completion, all relevant guarantees, any operating and maintenance instruction manuals, data or instructions required by the Project Manager or provided by manufacturer's supplier or Sub-Contractors. The contractor shall ensure that all warranties and guarantees received are fully ceded to the Employer on Final Completion, failing which the release of the Construction Guarantee will be withheld until this is satisfactorily completed. All compliance certificates such as Certificate of Compliance (COC) for electricity, Foundation inspection report, Pest Control Certificate, Glazing Certificate, Roof certificate and Sewer Line Inspection/Drainage Inspection report must be handed over to the project manager at the end of the project. And the contractor must apply and obtain Occupational certificate from the local Municipality.

10. Safety and Health Environment (SHE) Requirements

Item

1

The contractor shall provide Safety Signs in English and Barricading material to any potentially dangerous areas on the site. The Safety sign must be entirely visible to persons in the area and the potential hazard must be completely barricaded with approved barricading material. The Contractor shall take the necessary provisions for an emergency. This includes First aid boxes, fire extinguisher and emergency alarm in the case of an emergency on site. These essentials must be stored in places that are easily accessible. The contractor is to appoint a competent person as a SHE Officer for the duration of the project. The SHE Officer must carry out all of the services and duties required.

11. Development of office building drawings

Item

1

Develop of office building drawings, site drawing, working drawing by the registered Architects as per the municipality requirement and submit for approval by the local municipality

Carried to final summary

R

ITEM NO	QUANTITY	RATE	AMOUNT
<u>BILL NO. 2</u>			
<u>EARTHWORKS (PROVISIONAL)</u>			
<u>User note</u>			
<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i>			
<i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i>			
<i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. <u>Where such model preambles are not applicable</u> (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i>			
<i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i>			
<i>The following are typical examples of descriptions of "nature of ground"</i>			
<u>Nature of ground</u>			
The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"			
The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"			
The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock"			
Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"			
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"			
<u>User note</u>			
<i>The following are typical examples of descriptions of "subterranean water"</i>			
<u>Carting away of excavated material</u>			
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			
<u>Filling and layer work materials</u>			

References such as "G1", "G2", etc and "C1", "C2", etc in descriptions of filling and layer work materials refer to corresponding references in the document "Guidelines for Road Construction Materials. TRH 14 : 1985" compiled by the Committee of State Road Authorities and the properties set out therein for each kind shall be applicable to the respective materials described hereinafter

User note

When no information regarding density and other tests is available the following preamble in respect of testing may be inserted

Testing

Prices for filling are to include for all necessary density and other tests

SITE CLEARANCE

User note

Where the value is of significance, the removal of hedges etc shall be given separately in meters or in number

Site clearance

- | | | | |
|---|--|----|------|
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth | m2 | 1200 |
|---|--|----|------|

BULK EXCAVATION, FILLING, ETC

User note

This section is given as an alternative option and in the event of it being utilised, the excavation, filling, etc other than bulk is to be given in the later section under the appropriate heading If this alternative is not utilised then all excavation, filling, etc (bulk and otherwise) is to be given in the later section under the appropriate heading

EXCAVATIONS ETC

Digging up topsoil

- | | | | |
|---|---|----------------|------|
| 9 | Digging up topsoil to an average depth of 150mm and preserving for use as filling | m ² | 1200 |
|---|---|----------------|------|

FILLING ETC

Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density

- | | | | |
|----|-----------------------------|----------------|-----|
| 52 | Over site to make up levels | m ³ | 300 |
|----|-----------------------------|----------------|-----|

Compaction of surfaces

- | | | | |
|----|---|----------------|------|
| 54 | Compaction of natural or excavated ground surface over site by wetting and compacting with vibratory roller | m ² | 1200 |
|----|---|----------------|------|

TESTS

Prescribed tests to determine degree of compaction or other properties of ground or filling

- | | | | |
|----|------------------------------|----|---|
| 56 | Modified AASHTO Density test | No | 1 |
|----|------------------------------|----|---|

EXCAVATION, FILLING, ETC

EXCAVATION, FILLING, ETC OTHER THAN BULK

User note

Only the appropriate one of the above two alternative headings is to be inserted, depending on whether the separate "bulk excavation, filling, etc" option is utilised or not

EXCAVATIONS ETC

Excavation in earth not exceeding 2m deep

66	Trenches	m ³	66
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Extra over bulk excavations in earth for excavation in

82	Soft rock	m ³	30
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83	Hard rock	m ³	36
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Risk of collapse of excavations

115	Sides of trench and hole excavations exceeding 1,5m deep	m ³	110
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Keeping excavations free of water

116	Keeping excavations free of all water other than subterranean water	Item	1
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FILLING ETC

Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density

127	Backfilling to trenches, holes, etc	m ³	28
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WEED KILLERS, INSECTICIDES, ETC

Weedkiller (active ingredients metolachlor 102,8 g/l, terbutylazine 248,6 g/l and atrazine 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m²

157	Under paving etc	m ²	150
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User note

Where SANS 5859 is not applicable, refer to other suitable construction standards or provide full specifications

Soil insecticide in accordance with SANS 5859

158	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	300
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159	To bottoms and sides of trenches etc	m ²	160
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Carried to final summary

R

ITEM NO		QUANTITY	RATE	AMOUNT
	BILL NO 3			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	<u>User note</u>			
	<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i>			
	<i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i>			
	<i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicable (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i>			
	<i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i>			
	UNREINFORCED CONCRETE			
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES			
	<u>No fines concrete</u>			
	<u>Class II concrete</u>			
	<u>15MPa/19mm concrete</u>			
19	Ramps and Aprons	m ³	4	
	REINFORCED CONCRETE CAST ON/IN FORMWORK			
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES			
	<u>30MPa/19mm concrete</u>			
23	Strip footings	m ³	33	
30	Surface beds cast in panels on waterproofing	m ³	72	
	TEST CUBES			
57	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	1	
	<u>User note</u>			
	<i>In lieu of the above the requirements in respect of quality control can be described and the total volume of concrete subject to control given in cubic meters (normally the reinforced concrete only). There are specialist companies who offer a control service based on a rate per cubic meter</i>			
	CONCRETE SUNDRIES			

<u>MOVEMENT JOINTS ETC</u>			
<u>Expansion joints with 12mm softboard (bitumen impregnated softboard) (closed cell expanded polyethylene) between vertical concrete and brick surfaces</u>			
314	Not exceeding 300mm high to edges of surface beds	m	175
<u>REINFORCEMENT</u>			
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Mild steel reinforcement to structural concrete work</u>			
<u>Fabric reinforcement</u>			
<u>User note</u>			
<i>The following types of fabric reinforcement are normally specified: Types 100, 193, 245, 311 and 395</i>			
334	Type 193 fabric reinforcement in concrete surface beds etc	m ²	300
Carried to final summary			R

ITEM NO	QUANTITY	RATE	AMOUNT
BILL NO 4			
MASONRY			
<u>User note</u>			
<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i>			
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<i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicable (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i>			
<i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i>			
BRICKWORK			
<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			
<u>User note</u>			
<i>The following preamble generally applies for works in hot and humid coastal areas</i>			
<u>Face bricks</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
BRICKWORK			
FOUNDATIONS (PROVISIONAL)			
SUPERSTRUCTURE			
<u>Brickwork of NFP bricks in class II mortar</u>			
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar</u>			
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar in loadbearing walls etc</u>			

	<u>Brickwork of concrete bricks in class II mortar</u>			
	<u>Brickwork of calcium silicate bricks in class II mortar</u>			
25	One brick walls	m ²	130	
	<u>BRICKWORK SUNDRIES</u>			
	<u>FACE BRICKWORK</u>			
	<u>Face bricks pointed with recessed horizontal and vertical joints</u>			
	<u>User note</u>			
	<i>Where the radius of circular work is less than 1m the use of header courses, cut bricks or specially made bricks is to be ascertained and described as such</i>			
113	Extra over brickwork in foundations for face brickwork	m ²	60	
	Carried to final summary			R

ITEM NO		QUANTITY	RATE	AMOUNT
	BILL NO 5			
	<u>WATERPROOFING</u>			
	<u>User note</u>			
	<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i>			
	<i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i>			
	<i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicable (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i>			
	<i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i>			
	<u>Waterproofing</u>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
	<u>User note</u>			
	<i>Where SANS 952-1985 in the following headings is not applicable, refer to other suitable construction standards or provide full specifications</i>			
	<u>One layer type FV dampproof course</u>			
	<u>One layer 375 micron embossed polyethylene dampproof course for 220mm wall (SANS 952-1985 type B)</u>			
1	In walls	m	70	
	<u>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape</u>			
2	Under surface beds	m2	300	
	<u>WATERPROOFING TO ROOFS ETC</u>			
	<u>One layer 4mm special polyester fully bonded waterproof membrane comprising a matrix modified with polypropylene dual reinforced with non-woven polyester cloth and glass fibre tissue, laid with 75mm side and 100mm end laps</u>			

	One layer 1,7mm self-adhesive fully bonded waterproof membrane comprising 1,4mm rubberised asphalt and a layer of heat-resistant woven polypropylene mesh, laid with 75mm side and 100mm end laps Prime with one coat bitumen primer and one layer 4mm fully bonded waterproof membrane comprising two bitumen layers reinforced with woven spunbonded polyester fabric and coated with polyethelene film for heat bonding, laid with 100mm side and 150mm end laps Cementitious waterproofing system (suitable for tiling) comprising primer coat plasticised modified acrylic (PMA) (consisting of 5l PMA, 5 litres water and 16,5kg cement (32,5N), one layer pre-cut polypropylene fabric fully saturated in PMA slurry and two full coats PMA slurry Cementitious waterproofing system (suitable for tiling) comprising patching defects with polymer modified flexible (PMF) waterproofing slurry and three full coats PMF waterproofing slurry applied with a brush to a final dry film thickness of 2 to 3mm		
13	On sloping roofs with 15 degrees pitch	m2	420
	Carried to final summary		R

ITEM
NO

QUANTITY

RATE

AMOUNT

BILL NO 6

MASONRY

User note

Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions

Take note that these Model Bills of Quantities utilise abbreviated descriptions

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Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017

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

User note

The following preamble generally applies for works in hot and humid coastal areas

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

FOUNDATIONS (PROVISIONAL)

SUPERSTRUCTURE

Prefabricated Structure

User note

Where the radius of circular work is less than 1m the use of header courses, cut bricks or specially made bricks is to be ascertained and described as such

113 Supply, deliver and assembly of Chromadek Prefabricated office structure with Aluminium windows and Chromadek double doors and single doors as per the approved drawing plans and windows and doors schedules. (See the attached drawing plan sample)

Item

1

R

Carried to final summary



ITEM NO		QUANTITY	RATE	AMOUNT
	<u>BILL NO 7</u> <u>ROOF COVERINGS, CLADDINGS, ETC</u> <u>User note</u> <i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i> <i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i> <i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicable (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i> <i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i> <i>Where battens for roof coverings form part of the plate nailed timber roof truss design it shall be included under the roof construction in the "Carpentry and Joinery" trade and not under this trade</i> <u>PROFILED METAL SHEETING AND ACCESSORIES</u> <u>User note</u> <i>Profiled metal sheeting is available in various thicknesses. Usually Z275 spelter galvanising is used in inland areas and Z600 spelter galvanising for coastal areas. However galvanised sheeting is generally not used in coastal areas. When the pitch of troughed roof covering is less than 5 degrees or if dustproofing is required then the description of roof coverings "with side laps sealed" is to be used</i> <i>Where roof coverings are fixed on top of rigid board insulation to purlins etc they are to be described as such. Note that besides galvanised steel, sheeting is also available in corten steel, stainless steel, copper and aluminium</i> <u>Chromadek IBR 0,5mm Z686 spelter galvanised steel sheets fixed to steel purlins or rails</u>			
70	Roof covering plus ridges and valley with pitches not exceeding 25 degrees	m2	420	
	<u>ROOF AND WALL INSULATION</u> <u>User note</u> <i>Where SANS 1381-4 and SANS 0177-3 in the following heading is not applicable, refer to other suitable construction standards or provide full specifications</i>			

	Multi-layered reinforced double-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 293g/m ² and a Class I fire rating in accordance with SANS 0177-3			
221	Insulation sheeting fixed to underside of rafters (at approximately 700mm centres) with 150mm stapled laps including galvanised (PVC coated ?) steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	420	
	Carried to final summary			R

ITEM
NO

QUANTITY

RATE

AMOUNT

BILL NO 8

CEILING, PARTITIONS AND ACCESS FLOORING

User note

Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions

Take note that these Model Bills of Quantities utilise abbreviated descriptions

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Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017

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

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 galvanised in accordance with SANS 121

SUSPENDED CEILINGS

SUPPLEMENTARY PREAMBLES

Proprietary suspended ceilings

Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations

User note

The following preamble to be included in the bills of quantities after confirmation of the basic design of the ceilings, lighting, air conditioning, etc

Electrical light fittings, diffusers, panels etc are generally "lay-in" units of the same dimensions as the suspension grid described and allowance must be made in the rates 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)

Flush plastered gypsum plasterboard suspended ceilings

Ceilings shall comprise 9,5mm (12,5mm?) gypsum plasterboard boards screwed to and including screw-up suspension grid consisting of main tees at 1 200mm centres and galvanised steel capped cross tees at 400mm centres and with tape fixed over joints and the whole finished with gypsum plaster trowelled to a smooth polished surface

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

Flush plastered gypsum plasterboard suspended bulkheads

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

Descriptions shall be deemed to include any additional studs at ends and intersections, corner beads, cornices at junctions with ceilings, jointing compound, tape, etc

Pre-painted acoustic panels on exposed suspension grid system including hangers, necessary hold-down clips and wedges, etc

56	Ceilings suspended not exceeding 1m below steel purlins at trusses	m2	300
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Carried to final summary

R

ITEM NO		QUANTITY	RATE	AMOUNT
	<u>BILL NO 9</u>			
	<u>IRONMONGERY</u>			
	<u>User note</u>			
	<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i>			
	<i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i>			
	<i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. <u>Where such model preambles are not applicable</u> (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i>			
	<i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i>			
	<u>Proprietary items</u>			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items. Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered. On request returnable samples are to be provided to the principal agent for consideration.			
	<u>LETTERS, NAMEPLATES, ETC</u>			
	<u>In accordance with "A" catalogue</u>			
102	Plastic plate with male or female symbol	No	4	
103	Plastic plate with paraplegic symbol	No	1	
104	Plastic plate with fire exit, fire extinguisher, fire hose reel or fire hydrant symbol	No	4	
	Emergency exit	No	2	
	<u>BATHROOM FITTINGS</u>			
	<u>In accordance with "A" catalogue</u>			
141	Toilet roll holder, plugged	No	7	
	<u>PROPRIETARY TYPE KITCHEN CUPBOARDS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Steel Kitchen cupboards with four doors and double bowl sink and hot and cold water mixture tap and tops are to be steel.			
	Drawers are to be fitted with telescopic runners			

	<u>Kitchen cupboards, plugged</u>			
158	Four door floor Kitchen unit	No	1	
	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>			
	<u>In accordance with "A" catalogue</u>			
162	Pinning board 900 x 1200mm high, plugged	No	2	
	Carried to final summary			R

ITEM NO	QUANTITY	RATE	AMOUNT
<u>BILL NO 10</u>			
<u>METALWORK</u>			
<u>User note</u>			
<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i>			
<i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i>			
<i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. <u>Where such model preambles are not applicable</u> (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i>			
<i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i>			
<u>Descriptions of bolts, anchors, etc</u>			
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			
<u>Aluminium doors, windows, etc</u>			
Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass shall be type ? laminated performance glass as shown on the window schedules/drawings appended to these bills of quantities (as described in the headings to window descriptions?). Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed For purpose made windows and doors, refer to drawings annexed to (issued separately with?) these bills of quantities			
The following certificates shall be provided prior to commencement of site work:1A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product 2A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively			

3A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process 4A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked 5A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years

STEEL HANDRAILS

STEEL BALUSTRADING

GALVANISED STEEL BALUSTRADING

Welded balustrading to walkways

38	Horizontal balustrading to walkways of flat section continuous top rail, flat section continuous bottom rail, section intermediate balusters at centres between top and bottom rails and section posts at approximately centres each with flat section base plate bolted to walls (bolts elsewhere)	m	12
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STEEL GATES, SCREENS, ETC

ALUMINIUM GATES, SCREENS, BURGLERS ETC

Aluminium screens and gates to Windows

	Single gate 810 x 1032mm high flat section outer frame welded fixed to wall with bolts and fitted with a pair of suitable hinges welded to frame and with lockable sliding bolt with keep in gate post	No	1
135	Double gate 1620 x 1032mm high flat section outer frame welded fixed to wall with bolts and fitted with a pair of suitable hinges welded to frame and with lockable sliding bolt with keep in gate post	No	2

Carried to final summary

R

ITEM NO		QUANTITY	RATE	AMOUNT
	<u>BILL NO 11</u> <u>TILING</u> <u>User note</u> <i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i> <i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i> <i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. <u>Where such model preambles are not applicable</u> (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i> <i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i> <u>Patterns</u> Unless otherwise described, tiles shall be laid with continuous joints in both directions <u>Fixing</u> Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles <u>FLOOR TILING</u> <u>User note</u> <i>Waterproof grout is normally used in showers, on balconies, etc. Epoxy grout is used in kitchens, butcheries, etc, where floors are frequently washed with detergents</i> <u>Matt glazed ceramic floor tiles on 5mm bedding on concrete and flush pointed with tinted waterproof grout</u>			
15	On floors and landings	m2	350	

ITEM NO	QUANTITY	RATE	AMOUNT
<u>BILL NO 12</u>			
<u>PLUMBING AND DRAINAGE</u>			
<u>User note</u>			
<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i>			
<i>Take note that these Model Bills of Quantities utilise abbreviated descriptions</i>			
<i>The Model Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. <u>Where such model preambles are not applicable</u> (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications</i>			
<i>Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2017</i>			
<u>Wire gratings</u>			
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings			
<u>Stormwater channels</u>			
Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material on site			
<u>French drains</u>			
Descriptions of french drains shall be deemed to include excavation, stone filling graded from 300mm diameter at bottom to 75mm diameter at top, geofabric filter blanket over stone, 300mm earthfilling over and disposal of surplus material on site			
<u>Septic tanks</u>			
Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site			
<u>Stainless steel basins, sinks, wash troughs, urinals, etc</u>			
Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable			
<u>Sealing of edges</u>			
Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone			

PVC-U 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.

PVC-U pressure pipes and fittings

Pipes of 50mm diameter and smaller shall be plain ended with solvent welded PVC-U 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 PVC-U 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 compression fittings.

Polypropylene pipes

Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with heat welded thermoplastic or where so described compression fittings. Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.

Copper pipes

Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-siphon pipes, capillary solder fittings and compression fittings shall be "P" 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.

Petrolatum anti-corrosion tape

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with 75% overlaps. Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions

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 the relevant section of SANS 2001

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 to a minimum of 90% Mod AASHTO density 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 (pan connectors are separately measured)

Municipal connection

200	Provide the sum for municipal sewer connection	Item	1
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201	Profit	Item	1
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Testing

202	Testing soil drainage system	Item	1
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SANITARY FITTINGS

Ceremic

203	Wash hand basin on galvanised steel gallowes brackets	No	5
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212	Curved back urinal with inlet for flush valve (flush valve elsewhere) sparge pipes and hinged domical grating	No	2
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221	WC suite comprising WC pan with double flap heavy duty plastic seat and matching 9 litre cistern with flush pipe	No	7
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224	Paraplegic WC pan with cradle bracket and legs and double flap white epoxy painted wooden seat (flush valve and flush pipe elsewhere)	No	1
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Municipal connection

428	Provide the sum for municipal water connection	Item	1
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429	Profit	Item	1
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<u>Testing</u>		
430	Testing water pipe system	Item 1
<u>ELECTRIC WATER HEATERS</u>		
<u>Electric Geyser</u>		
435	150l Geyser	No 1
<u>FIRE APPLIANCES ETC</u>		
443	Fire hose reel with 30m plastic (rubber?) hose, chromium plated stopcock, shut-off nozzle and wall bracket	No 1
444	9kg dry chemical powder fire extinguisher	No 2
Carried to final summary		R

ITEM
NO

QUANTITY

RATE

AMOUNT

BILL NO 13

ELECTRICAL WORK

User note

Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions

Users are to note that no provision has been made in the "Model Preambles for Trades 2017" published by the Association of South African Quantity Surveyors for electrical work. Users are advised to include the engineer's comprehensive electrical project specification in these bills of quantities and to insert relevant supplementary preambles where necessary or to refer to suitable construction standards

Supplementary preambles hereafter are given as examples only, reproduced from typical bills of quantities where some of the preambles may have been specifically required

The range of items provided in this bill is an example of typical items with (or without) trade names to show possible ways of describing such items. Users must take special care that only items relevant to the specific project are to be included and that descriptions should be adapted as necessary to suit the particular circumstances

Headings and descriptions of items in this bill assume that the specification and/or supplementary preambles fully describe materials to be used, methods of fixing, etc

Specifications, drawings, etc

Tenderers are referred to the specification and drawings numbered prepared, annexed to these bills of quantities for the electrical work, for the full descriptions of the following items which are to be read and priced in conjunction with the said specification and drawings

Contract price adjustment provisions

With reference to clause of the Preliminaries all items in this bill will be subject to fluctuations in the cost of labour and material on the following basis:

(a) Ring main units, miniature substations, transformers, main low tension boards, distribution boards and busbars between transformer and low tension boards calculated on the indices published by the Steel and Engineering Industries Federation of South Africa

(b) Cables in excess of 16mm² calculated on the basis of proven cost

(c) All other work calculated on the index for work group ?

Distribution boards etc

Rates for distribution boards etc are to include for busbars, jumpers, neutral bars, internal wiring and connections, circuit identification markers, control gear labels, circuit legend cards and working drawings

Switches, socket outlets, etc

Rates for switches, socket outlets, etc are to include for screwing to outlet boxes, connecting up and cover plates

Light fittings

Rates for light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described

MUNICIPAL CONNECTION

CONNECTION

- | | | | |
|---|---|------|---|
| 1 | Provide the sum for municipal / eskom electrical connection | Item | 1 |
| 2 | Profit | Item | 1 |
| 3 | Connection of 95mm ² 3-core PEX cable with stranded copper conductors and 70mm ² bare copper earth conductor to existing 11kV ring main supply cable, including required terminations and cable joints and making the necessary arrangements with the local authority | Item | 1 |

Carried to final summary

R

ITEM NO	QUANTITY	RATE	AMOUNT
BILL NO 14			
MECHANICAL WORK			
<u>User note</u>			
<i>Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions</i> <i>Users are to note that no provision has been made in the "Model Preambles for Trades 2017" published by the Association of South African Quantity Surveyors for mechanical work. Users are advised to include the engineer's comprehensive mechanical project specification in these bills of quantities and to insert relevant supplementary preambles where necessary or to refer to suitable construction standards</i> <i>Supplementary preambles hereafter are given as examples only, reproduced from typical bills of quantities where some of the preambles may have been specifically required</i> <i>The range of items provided in this bill is an example of typical items with (or without) trade names to show possible ways of describing such items. Users must take special care that only items relevant to the specific project are to be included and that descriptions should be adapted as necessary to suit the particular circumstances</i> Headings and descriptions of items in this bill assume that the specification and/or supplementary preambles fully describe materials to be used, methods of fixing, etc			
SUPPLEMENTARY PREAMBLES			
<u>Specifications, drawings, etc</u>			
Tenderers are referred to the specification and drawings numbered ? to ? prepared by ?, annexed to these bills of quantities (accompanying these bills of quantities?) for the mechanical work, for the full descriptions of the following items which are to be read and priced in conjunction with the said specification and drawings			
<u>Ductwork</u>			
Descriptions of ducts shall be deemed to include stiffeners, jointing materials, sealants, couplers in the running length and access/inspection panels in accordance with the specification			
<u>Dampers</u>			
Descriptions of smoke and fire dampers shall be deemed to include fusible links, sleeves, frames, supports and access openings in ducts			
<u>Air diffusion</u>			
Descriptions of air terminals, grilles, louvres and the like shall be deemed to include necks, frames, supports and flexible connections			
<u>Fans</u>			
Descriptions of fan assemblies shall be deemed to include supports from the structure, flexible or other connections to ductwork, vibration isolation mountings and airtight inspection doors			
<u>Sound attenuators</u>			
Descriptions of sound attenuators shall be deemed to include flanged or flexible connections to ducts and supports from the structure			

Fan coil units, fan air terminals and fan heaters

Descriptions of fan coil units, fan air terminals and fan heaters shall be deemed to include connection points for water, air and electrical supply, for air grilles, dust trays, condensate trays and vibration isolation mountings. Flexible ducts, flexible hose and connecting cables for connecting these units to each other or to water pipe, and electrical supply are separately measured

Major equipment

Descriptions of major equipment such as chillers, air handling units and the like shall be deemed to include connections to water, air and electrical supply and/or discharge points, supports, bearers, vibration insulation mountings, filters, insulation, inspection ladders and gangways, access doors and panels and painting etc as specified

Piping

Pipe diameters are nominal internal unless otherwise stated. Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch diameter is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all diameters are given and no claim for extra bushes, reducers, etc will be entertained

Fixing of pipes

Unless 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

Pump sets

Descriptions of pumps shall be deemed to include connections to water and electrical supply and/or discharge points, vibration insulation mountings, insulation, drip trays with outlets, pressure gauges, etc

Valves

Descriptions of valves shall be deemed to include flanged or screwed connections to pipes, reducers, supports, etc

Insulation

Descriptions of insulation shall be deemed to include priming the pipes with zinc chromate primer before the insulation is applied, painting the insulation when completed and applying vapour barrier where specified

AIR CONDITIONING INSTALLATION

SPLIT TYPE UNITS

1	9kW Wall mounted unit with condensor section mounted on external wall	No	4
2	24kW Wall mounted unit with refrigerant and drain piping, with condensor section mounted on external wall	No	2

Carried to final summary

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SUMMARY

1	Preliminaries	Bill no	1
2	Earthworks (provisional)	Bill no	2
3	Concrete, formwork and reinforcement	Bill no	3
4	Masonry	Bill no	4
5	Waterproofing	Bill no	5
6	Superstructure	Bill no	6
7	Roof coverings, claddings, etc	Bill no	7
8	Ceilings, partitions and access flooring	Bill no	8
9	Ironmongery	Bill no	9
10	Metalwork	Bill no	10
11	Tiling	Bill no	11
12	Plumbing and drainage	Bill no	12
13	Electrical work	Bill no	13
14	Mechanical work	Bill no	14
15	External work	Bill no	15
16	Provisional sums	Bill no	16

Contingency Amount

Allow 8% of the above sub-total for contingencies to be used as directed and deducted in whole or in part if not required ?

Item 1

Sub-total

R

Value Added Tax

Allow 15% of the above sub-total for Value Added Tax

Item 1

R

Coligny Tender Amount

R