TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



TRANSNET

DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

MONTHS

PART 2: PRICING DATA

| Document reference | Title | | No of pages |
|--------------------|-----------|------------------------|-------------|
| C | 1 Pricing | instructions: Option B | 3 |
| C | 2 The bil | l of quantities | 17 |

PAGE 1 Part C2: Pricing Data
Part C2.1: Pricing Instructions ECC Option B

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data

C2.2: Bill of quantities

TRANSNET

DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12) MONTHS

C2.1 Pricing instructions: Option B

1. The conditions of contract

1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract, June 2005 (ECC) Option B states:

Identified and 11 defined terms 11.2

- (21) The Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.
- (22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.
- (28) The Price for Work Done to Date is the total of
- the quantity of the work which the Contractor has completed for each item in the Bill of Quantities multiplied by the rate and
- a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed.

Completed work is work without Defects which would either delay or be covered by immediately following work.

(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2. Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities is not Works Information or Site Information". This confirms that instructions to do work or how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

1.3. Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *bill* of quantities or before entering rates and lump sums into the *bill*.

Historically bill of quantities based contracts in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of contract and methods of measurement. This is particularly apparent in the approach to the Preliminary and General bill. On the other hand, because ECC caters for a number of disciplines in the same contract, including electrical works, a different approach not currently found in local methods of measurement to the Preliminary & General bill items may have been used.

The NEC approach to the P & G bill assumes use will be made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people



TRANSNET

DESCRIPTION OF THE WORKS: PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

MONTHS

working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill.

2. Measurement and payment

2.1. **Symbols**

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

| Abbreviation | Unit |
|-----------------------|-----------------------|
| % | percent |
| h | hour |
| ha | hectare |
| kg | kilogram |
| kl | kilolitre |
| km | kilometre |
| km-pass | kilometre-pass |
| kPa | kilopascal |
| kW | kilowatt |
| 1 | Litre |
| m | metre |
| mm | millimetre |
| m^2 | square metre |
| m ² -pass | square metre pass |
| m^3 | cubic metre |
| m³-km | cubic metre-kilometre |
| MN | meganewton |
| MN.m | meganewton-metre |
| MPa | megapascal |
| No. | number |
| Prov sum ¹ | provisional sum |
| PC-sum | prime cost sum |
| R/only | Rate only |
| sum | Lump sum |
| t | ton (1000kg) |
| W/day | Work day |

2.2. **General assumptions**

2.2.1. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

PAGE 2

Contract PRO-FAT-0216 Rev02

Part C2: Pricing Data C2.2: Bill of quantities

¹ Provisional Sums should not be used unless absolutely unavoidable. Rather include specifications and associated bill items for the most likely scope of work, and then change later using the compensation event procedure if necessary. This is because tenderers cannot programme effectively for unknown scopes of work

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



TRANSNET

DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

MONTHS

2.2.2. The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

The rates and prices entered in the Price List shall be deemed to be the fully inclusive value of the work covered by the several items, including the following unless specified otherwise:

- 1. Supervision and the TLB operator, labour and all costs in connection therewith, including transport of personnel and their PPE.
- 2. The supply of materials, goods, storage, facilities and services and all costs connected therewith including wastage.
- 3. Plant (eg. a TLB), equipment and tools and all costs in connection therewith including fuel.
- 4. All general obligations, requirements, liabilities and risks involved in the aiding of the investigation as set forth or implied in the documents on which the tender is placed.
- 5. Establishment charges, overheads and profit.
- 6. Removal of all plant, equipment, tools, debris and waste from site on completion.
- 7. Delivery of samples to the laboratory, sample preparation and testing, and presentation of the results.

It is the intention to complete all the fieldwork within 1 working day. No test pits will be allowed to be left open.

Rates for laboratory testing are to include the cost of sample preparation, testing, reporting and the disposal of unused sample material.

- 2.2.3. Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.
- 2.2.4. Where this contract requires detailed drawings, designs or other information to be provided, and no rates or prices are included in the *bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the tendered rates and Prices in the Bill of Quantities.
- 2.2.5. An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.
- 2.2.6. The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the Bill of Quantities.
- 2.2.7. The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. More detail regarding the extent of the work entailed under each item is provided in the Works Information.

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data C2.2: Bill of quantities

DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12) MONTHS

C2.2 The bill of quantities

| Item No | Description | Unit | Quantity | Rate | Amount |
|------------|---|------|----------|------|--------|
| | SECTION A | | | | |
| 1 | PRELIMINARY & GENERAL ITEMS | | | | |
| | FIXED COSTS | | | | |
| 1,1 | Allow amount for Site Establishment (Offices, Ablutions, tools, and equipment, water supplies point, electricity and communication) | | 1 | | |
| 1,2 | Allow an amount for De-establishment | Sum | 1 | | |
| 1,3 | Allow amount for Environmental, Health and safety compliance and related obligations. | Sum | 1 | | |
| 1,4 | Allow for the demolition of 139 m long, 200 mm thick and 3m high reinforced concrete walls used as sand bins, remove rubble to municipal dumpsite. | | 1 | | |
| 1,5 | Allow amount for engineering designs by a registered civil engineer/ firm for the road /pavement layer works, water pipes and for the new storm water runoff, general supervision for the site including monitoring, inspection reports for the duration of the project | | 1 | | |
| 2 | TIME RELATED COSTS | | | | |
| 2,1 | The Contractor shall allow for all time related Preliminary and General cost relating to this project for the complete duration of the Contract, these costs shall include for all, but not necessary limited, site supervision and security | | 48 | | |
| 3 | DAYWORKS | | | | |
| 3,1 | Personnel : Rates shall include for on-costs | | | | |
| 3,2 | Artisan | Hr | 120 | | |
| 3,3 | Gang supervisor | Hr | 120 | | |
| 3,4 | Construction foreman | Hr | 120 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

MONTHS

| | Carried Forward | | | | | |
|------------|--|--------|----------|------------|--------|--|
| Item No | Description | Unit | Quantity | Rate | Amount | |
| | | | Broug | ht Forward | | |
| 3,5 | Survey assistant | Hr | 120 | | | |
| | | | | | | |
| 3,6 | TLB | Hr | 120 | | | |
| 0.7 | | | 400 | | | |
| 3,7 | HDV (Tipper Truck up to 10 m3) | Hr | 120 | | | |
| 3,8 | 12 Ton smooth roller compactor | Hr | 120 | | | |
| 3,0 | 12 Terremodul Terremon compactor | | 120 | | | |
| 3,9 | Plate compactor | Hr | 120 | | | |
| 3,5 | | | 0 | | | |
| 3,10 | Grader | Hr | 120 | | | |
| 4 | ACCOMMODATION OF TRAFFIC | | | | | |
| | | | | | | |
| | Provision of temporal signs, barricades, | | | | | |
| 4,1 | warning signs, cones, drums and command | Item | 1 | | | |
| ,,,, | signs including flagmen including managing of | 110111 | | | | |
| | the traffic for the duration of the project. | | | | | |
| 5 | TESTING OF MATERIALS & WORKMANSHIP | | | | | |
| | <u></u> | | | | | |
| | Arrange for tests to be carried out, as required | | | | | |
| | for road construction | | | | | |
| | | | | | | |
| - A | Road /paving layers works compaction | NI. | 00 | | | |
| 5,1 | strength. | No | 20 | | | |
| | | | | | | |
| 6 | EARTHWORKS (ROAD CONSTRUCTION) | | | | | |
| | | | | | | |
| 6,1 | Rip up existing wearing course up to 50mm | m² | 2010 | | | |
| , | thickness | | | | | |
| | Every estimated Culphanes and hope masterial un | | | | | |
| 6,2 | Excavation of Sub base and base material up to a depth of 350 mm | m³ | 845 | | | |
| | to a doptin or odd mini | | | | | |
| | Excavation of intermediate material beyond a | • | 222 | | | |
| 6,3 | depth of 350 mm | m³ | 360 | | | |
| | _ | | | | | |
| 0.4 | Hauling of excavated material to back road | 3 | 0.45 | | | |
| 6,4 | within 5km distance including levelling compaction | m³ | 845 | | | |
| | Compaction | | | | | |
| 7 | ROADBED | | | | | |
| | | | | | | |
| | Preparation and compaction of in-situ material | | | | | |
| 7,1 | to a depth of 150 mm, including all testing | m³ | 542 | | | |
| | required. Compact to 93% Mod AASHTO | | | | | |
| | | | | | | |

Part C2: Pricing Data C2.2: Bill of quantities

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

| | | Carried Forward | | | |
|------------|---|-----------------|----------|------------|--------|
| Item No | Description | Unit | Quantity | Rate | Amount |
| 110 | | | Brough | nt Forward | |
| 8,1 | Construct 100mm thick sub base with G5 quality material (min. CBR 80% and PI<6) from commercial sources compacted to 95% mod. AASHTO. | m³ | 201 | | |
| | STABILIZATION AGENT | | | | |
| 8,2 | Construct C4 layer (Price to include final product; incl. material, processing and curing to the required COLTO specification), 100 mm thick | m³ | 201 | | |
| 8,3 | Supply and distribute Cationic 60% stable grade emulsion | m² | 2010 | | |
| 8,4 | Portland cement | t | 10 | | |
| | BASE | | | | |
| 8,5 | Construct base with 150 mm thick G1 quality material from commercial sources (graded crushed stone, PI <6, max.stone size 37,5 mm), compacted to 88% Mod. AASHTO. | m³ | 542 | | |
| 9 | ASPHALT BASE AND SURFACING | | | | |
| 9,1 | Prime Coat, using MC 30 Sprayed at a nominal rate of 0.7 litres/m² | m² | 4587 | | |
| 9,2 | Continuously graded medium asphalt surfacing (50/70 bitumen), using IV (a) hot mix, at 40mm thickness placed by machine operation | m² | 4587 | | |
| 10 | STORMWATER DRAINAGE | | | | |
| 10,1 | Excavation for pipes up to 600mm dia , 1m-1.7m depth | m | 900 | | |
| 10,2 | Remove existing stormwater pipes | m | 900 | | |
| 10,3 | Lay new 600 dia pipes | m | 900 | | |
| 10,4 | Reinstate storm water catch pits / Manholes as per standard drawings supplied | No | 21 | | |
| 10,5 | Construct new v-drain channel on both sides of | m | 360 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



| | the road | | | | |
|------------|---|------|-----------|--------|--------|
| | | | Carried F | orward | |
| Item No | Description | Unit | Quantity | Rate | Amount |
| | T | | Brought F | orward | |
| 10,6 | Construct new channel on one sides of the road | m | 200 | | |
| 11 | WATER MAIN | | | | |
| 11,1 | 160 x110 uPVC (SABS(966-1 Reducing Tee | No | 2 | | |
| 11,2 | Lay new 110 dia. Class 12 PVC(966-1) water main. Excavate in all material for trenches, select material for bedding, backfill, compact and dispose surplus or unsuitable material for pipes for depths 1m - 1.5m (800 mm pipe cover) | m | 1637 | | |
| 11,3 | Lay new 160 dia. Class 12 PVC(966-1) fire main. Excavate in all material for trenches, select material for bedding, backfill, compact and dispose surplus or unsuitable material for pipes for depths 1m - 1.5m (800 mm pipe cover) | m | 1510 | | |
| 11,4 | Lay new 110 dia. Class 12 PVC(SABS(966-1)fire main. Excavate in all material for trenches, select material for bedding, backfill, compact and dispose surplus or unsuitable material for pipes for depths 1m - 1.5m (800 mm pipe cover) | m | 100 | | |
| 11,5 | Provide100mm bedding from commercial sources long side the pipe trench. | m³ | 158 | | |
| 11,6 | T-piece Connection to new underground fire hydrants | No | 5 | | |
| 11,7 | Connection to existing water main 160mm dia. | No | 4 | | |
| 11,8 | T-piece 50 dia. x110mm Saddle connection to building | No | 7 | | |
| 11,9 | Installation of 110 dia. Gate valves to suit PVC pipe | No | 11 | | |
| 11,10 | Installation of 160 dia. Gate valves to suit PVC pipe | No | 9 | | |
| 11,11 | Supply spare standpipe for fire hydrant with spanner | No | 1 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

| | T | | | | |
|--------------|--|------|-----------|---------|--------|
| | | | | | |
| | T | T | Carried F | orward | |
| Item No | Description | Unit | Quantity | Rate | Amount |
| | | | Brought | Forward | |
| 12 | ELECTRICAL SLEEVES | | | | |
| 12,1 | Excavate 0.8-1.2m deep and Install 150 dia. Electrical HDPE sleeves | m | 790 | | |
| 12,2 | Construct a draw pit, size 650mm x650mm x1000mm deep from single common brick with 50mm concrete base and cast iron cover flush to surface | No | 15 | | |
| 13 | - SEWER (Area D & A) | | | | |
| 13,1 | Excavate 1-2m deep and remove existing 100 dia. sewer line | m | 380 | | |
| 13,2 | Lay new 160 dia. PVC sewer line | m | 380 | | |
| 13,3 | Rebuilt existing sewer manholes as per standard drawing provided | | 14 | | |
| 14 | INTERLOCKING PAVERS (E, F, G, H, I) | | | | |
| 14,1 | 100mm subbase in-situ material rip and recompact to 95% Mod.AASHTO | m³ | 119 | | |
| 14,2 | 100mm G1 base course material compact to 88% Mod. AASHTO | m³ | 119 | | |
| 14,3 | Cut units to fit edge restraints | m | 350 | | |
| 14,4 14,5 | Cast in-situ sunken 100mm edge kerb | m | 350 | | |
| 14,6 | Construct 80mm 45 MPa type S-A interlocking CBP on 30mm sand bed | m² | 1188 | | |
| 15 | INTERLOCKING PAVERS (K,L) | | | | |
| 15,1 | Demolish 200mm thick concrete slab remove rubble to a registered municipal dump | m² | 14000 | | |
| 15,2 | 100mm subbase in-situ material rip and recompact to 95% Mod.AASHTO | m³ | 2280 | | |
| 15,3 | 100mm G1 base course material compact to 88% Mod. AASHTO | m³ | 2280 | | |
| 15,4 | Cut units to fit edge restraints | m | 1077 | | |
| 15,5 | Cast in-situ sunken 100mm edge kerb | m | 1077 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data C2.2: Bill of quantities

| | Construct 80mm 45 MPa type S-A interlocking | _ | | | |
|------------|---|------|----------|---------|--------|
| 15,6 | CBP on 30mm sand bed | m² | 22796 | | |
| 15,7 | Paint stop line road markings | No | 5 | | |
| 14 | 1 | | Carried | Forward | |
| Item No | Description | Unit | Quantity | Rate | Amount |
| 40 | ACDITALT (AI) | | Brought | Forward | |
| 16 | ASPHALT (N) Demolish 200mm thick concrete slab remove | | | | |
| 16,1 | rubble to a registered municipal dump | m² | 3268 | | |
| 16,2 | 100mm subbase in-situ material rip and recompact to 95% Mod.AASHTO | m³ | 327 | | |
| 16,3 | 150mm reclaimed base course material compact to 88% Mod. AASHTO | m³ | 490 | | |
| 16,4 | Prime Coat, using MC 30 Sprayed at a nominal rate of 0.7 litres/m ² | m² | 3268 | | |
| 16,5 | Continuously graded medium asphalt surfacing (50/70 bitumen), using IV (a) hot mix, at 40mm thickness placed by machine operation | m² | 3268 | | |
| 17 | ASPHALT (O,R) | | | | |
| | NOTTINET (0,1N) | | | | |
| 17,1 | 100mm base in-situ material rip and recompact to 95% Mod.AASHTO, 100% in sand. | m³ | 475 | | |
| 17,2 | Prime Coat, using MC 30 Sprayed at a nominal rate of 0.7 litres/m ² | m² | 4746 | | |
| 17,3 | Continuously graded medium asphalt surfacing (50/70 bitumen), using IV (a) hot mix, at 40mm thickness placed by machine operation | | 4746 | | |
| 10 | INTERLOCKING PAYERS (P. C) | | | | |
| 18 18,1 | INTERLOCKING PAVERS (P,Q) 100mm in-situ base course material rip and recompact to 95% Mod. AASHTO | m³ | 1821 | | |
| 18,3 | Cut units to fit edge restraints | m | 900 | | |
| 18,4 | Cast in-situ sunken 100mm edge kerb | m | 900 | | |
| 18,5 | Construct 80mm 45 MPa type S-A interlocking CBP on 30mm sand bed | m² | 18212 | | |
| | | | | | |
| 19 | NEW WORKS | | | | |
| 19,1 | New 23,38 m² Guard House (Attached Drawing) complete with toilet and 3000 litres septic tank | No | 1 | | |
| 19,2 | New manually operated boom gates (2.5m arm) | No | 2 | | |
| 19,3 | New Tenant Pylons complete with concrete base | Sum | 1 | | |
| 20 | ROAD SIGNS | | | | |
| | | | | | |
| 20,1 | Install stop signs | No | 6 | | |
| | | | | | |
| 20,2 | Install speed hump signs | No | 4 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



| 21 | EXISTING SERVICES | | | | |
|------------|---|------|----------|---------|--------|
| 21,1 | Locating by electronic means | m | 900 | | |
| 21,1 | Locating by electronic means | 111 | | Forward | |
| Item No | Description | Unit | Quantity | | Amount |
| 140 | | l | Brought | Forward | |
| 21,2 | Excavate test holes by hand 1X1X1m hand in soft | No | 50 | | |
| | | | | | |
| 21,3 | Locate and expose and lower existing water or sewer erf connections | m | 400 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data C2.2: Bill of quantities

DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

| | SECTION A TOTAL | | | | |
|------|---|-------|----------|------|--------|
| Item | | Unit | Quantity | Rate | Amount |
| No | Description | Unit | Quantity | Rate | Amount |
| | SECTION B | | | | |
| | MINOR REFURBISHMENT WORKS OF | | | | |
| | PROMAT BUILDING | | | | |
| 1 | Preliminary & General | | | | |
| 1 | Preliminary & General | | | | |
| 1,1 | The Contractor shall allow for all fixed cost Preliminary and general items relating to this project for the complete duration of the | Month | 3 | | |
| , | contract, these costs shall include for all, but necessary limited to, site supervision and security | | | | |
| 1,2 | Structural Engineer | Hr | 30 | | |
| , | 3 | | | | |
| 1,3 | Electrical Engineer | Hr | 30 | | |
| 2 | Demolitions | | | | |
| | <u>Bernolitions</u> | | | | |
| 2,1 | Demolish existing concrete floor slab in portions between RC beams.250mm THK. Complete as per Aurecon demolition specification, including cart away to spoil site | m² | 46 | | |
| 2,2 | Remove existing doors and door frames | No | 3 | | |
| ۷,۷ | Tremove existing doors and door mariles | 140 | 3 | | |
| 2,3 | Remove by mechanical means 10mm THK plaster and cart to spoil. | m² | 25 | | |
| 3 | Interior work (To be read in conjunction with LE1, LE5,LE13A & LE15) | | | | |
| 3,1 | Mild-steel bars in the following: Slab | t | 0,10 | | |
| 3,2 | High- tensile steel bars in the following: Slab | t | 1 | | |
| 3,3 | Class 30 Mpa/ 19mm concrete in slab | m³ | 6 | | |
| 3,4 | Precast RC slab: Rib and block 200THK slab with high block and 50 toppings with 193 mesh installed complete including screed | m² | 66 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data C2.2: Bill of quantities

DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

| 3,5 | Concrete Repair: Apply two coats Bonding Agent. Apply 10mm concrete repair mortar to level surface to attach angle. Complete including preparation. | m² | 20 | | |
|------------|--|------|----------|---------|--------|
| | | | Carried | Forward | |
| Item No | Description | Unit | Quantity | Rate | Amount |
| | | | Brought | Forward | |
| 3,6 | Apply carbon fibre re- inforced polymer laminates plates H514/50 to underside of existing slab to manufacturers' specification. Complete including preparation. | m | 12 | | |
| 3,7 | 100x75x8THK galvanised mild steel angle including expanded metal welded to underside of bottom face, bolted to existing concrete face with M12 (galvanised) chemical anchors at 300centres. Complete | | 50 | | |
| 3,8 | Doors :Refer to drawing 108981-D01 as per door schedule drawing Type D | No | 3 | | |
| 3,9 | Windows :Refer to drawing 108981-D01 including glazing as per window schedule drawing Type W | No | 2 | | |
| 3,10 | Type WA | No | 5 | | |
| 3,11 | Ceilings: 10mm Ceiling Skim | m² | 66 | | |
| 3,12 | 60mm Cornices installed complete | m | 40 | | |
| 3,13 | Ironmonger: Burglar Bars, refer to drawing 108981-D01. Burglar bar schedule | No | 1 | | |
| 3,14 | Plaster: 12mm plaster finish on brick work | m² | 90 | | |
| 3,15 | Paintwork: Paint internal walls with 2 coats acrylic PVA or similar Including plaster primer. Complete | m² | 305 | | |
| 3,16 | Paint ceilings with 2 coats sands acrylic PVA or similar including plaster primer. Complete | m² | 178 | | |
| 3,17 | Floors: 300x300x25THK(MF2529) vinyl floor tiles installed complete. | m² | 46 | | |
| 3,18 | Fully installed complete industrial carpet | m² | 132 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data C2.2: Bill of quantities

| М | Ю | N. | T | Н | S |
|---|---|----|---|---|---|
| | | | | | |

| 4 | Electrical Work | | | | |
|-------|--|-------|----------|-----------|--------|
| 4,1 | Allow for all costs and expenses in connection with the following general items: Liaison with Local Town council, Telkom, submission of ECA registration | Sum | 1 | | |
| 4,2 | On-site liaison with other disciplines | Sum | 1 | | |
| 4,2 | Off-Site ilaisoff with other disciplines | Sum | | l forward | |
| Item | Description | Linit | | | Amount |
| No | Description | Unit | Quantity | Rate | Amount |
| | 1 | 1 | Brought | Forward | |
| 4.2 | As build drawings for new electrical installation | Cum | 1 | | |
| 4,3 | As build drawings for new electrical installation | Sum | 1 | | |
| 4,4 | Certificate of Compliance for complete installation. | Sum | 1 | | |
| 4,5 | 12 month guarantee period on equipment and installation | Sum | 1 | | |
| 4,6 | Final phase halonging on DDIs | Sum | 1 | | |
| 4,6 | Final phase balancing on DB's | Sum | 1 | | |
| 4,7 | Verification of final lighting levels with engineer | Sum | 1 | | |
| , | | | | | |
| 4,8 | Testing and commissioning of the complete installation | Sum | 1 | | |
| 4,9 | Low Voltage- Electrical Installation. Allow for all costs and expenses in connection with the following general items: Remove existing socket outlet, telephone outlets, patch and panels etc. of current installation | Sum | 1 | | |
| 4,10 | New installation Lighting and Ventilation 2x26 W CFL bulkhead: Supply | No | 3 | | |
| 4,11 | Installation | No | 3 | | |
| 4,11 | modulation | INO | 3 | | |
| 4,12 | 2x54W T5 Open channel florescent fittings C\W lamps: Supply | No | 6 | | |
| 4,13 | Installation | No | 6 | | |
| 4,14 | Ceiling Fan CW controller: Supply | No | 6 | | |
| 4,15 | Installation | No | 6 | | |
| 4,16 | Outlets: Power skirting Modular Outlets complete with cradles etc. 16Amp 3-pin250V single switched socket outlet: Supply | No | 22 | | |
| 4,17 | Installation | No | 22 | | |
| 4, 17 | motanation | LINU | | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

MONTHS

| | 1 | 1 | 1 | | Т |
|------------|--|------|----------|-----------|--------|
| 4,18 | Surface Mounted Socket outlets complete with galvanised, epoxy powder coated 4x4 extension boxes galvanised epoxy powder coated cover plates, outlets, glands etc. 16Amp 3-pin 250V double switched socket | No | 2 | | |
| 4,19 | outlet: Supply Installation | No | 2 | | |
| ., | The canadian | 1.10 | _ | l Forward | |
| Item No | Description | Unit | Quantity | Rate | Amount |
| | | | Brought | Forward | |
| 4,20 | Switches: Industrial flush mounted 16A light switches complete with boxes, cover plates switches etc.; Similar or equivalent to Crab tree Classic Range: 1 Lever, 3-Way Supply | No | 3 | | |
| 4,21 | Installation | No | 3 | | |
| , | | | | | |
| 4,22 | 2 Lever, 2-Way Supply | No | 1 | | |
| 4,23 | Installation | No | 1 | | |
| 4.04 | | | | | |
| 4,24 | Circuit breakers: 5kA,20A, Single phase | No | 6 | | |
| 4,25 | Installation | No | 6 | | |
| 4,26 | 5kA,63A, 2 pole Earth leakage protection: Supply | No | 1 | | |
| 4,27 | Installation | No | 1 | | |
| 4,28 | Wire ways: Supply and install conduit, PVC conduit surface mounted to brickwork, concrete, steel or reticulated in roof, or cast into concrete or chased into brickwork or concrete. Complete conduit boxes, bends, couplings, glue etc. 25mm Diameter | m | 180 | | |
| 4,29 | Wiring: Supply and install single core PVC insulated house wire 2.5mm² | m | 220 | | |
| 4,30 | 4mm | m | 290 | | |
| 4,31 | Single core PVC insulated earth wire 2.5mm² | m | 510 | | |
| 4,32 | Cable management: Double compartment power skirting outside dimensions 55mmx 160mm minimum. Straight length with cover | m | 60 | | |
| 4,33 | Fittings to double compartment power skirting: Internal Elbow | No | 8 | | |

Part C2: Pricing Data C2.2: Bill of quantities

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



| MON | ITHS |
|-----|------|
|-----|------|

| | 1 | | 1 | <u> </u> | T |
|------|---|------|-------------|----------|--------|
| | | | | | |
| 4,34 | External Elbow | No | 8 | | |
| | | | | | |
| 4,35 | Flat Elbow | No | 8 | | |
| | | | | | |
| 4,36 | Flat Tree | No | 8 | | |
| | | | | | |
| 4,37 | End Cap | No | 5 | | |
| | 1 | | Carried | Forward | |
| Item | Description | Unit | Quantity | Rate | Amount |
| No | , | | | F | |
| | Owner has and in stall of an adjace duta has discussed | | Brought | Forward | |
| 4,38 | Supply and install of medium duty hot dipped galvanised welded wire mesh cable tray, 50x50mm base Aperture,25x50mm side Aperture, complete with splices and couplers, clamps and threaded rods, walls etc. as per drawings and specifications: 150x50mm (WxH), Ø 4mm wire straight length | m | 180 | | |
| 4,39 | Labelling of Circuits and Equipment | Sum | 1 | | |
| | | | | | |
| 5 | Foyer, Passages, Toilet upgrades and Exterior Work | | | | |
| | | | | | |
| 5,1 | Roof gutters: Fit new Aluminium gutters; 150x125mm OGEE type with brackets at 500mm centres | m | 56 | | |
| 5,2 | Fit 110mm dia. PVC downpipes to centre nozzle outlets. Anchor properly with brackets to wall. Fit PVC rain water shoe to each downpipe. | No | 4 | | |
| | Fit brooksto to brisky voll | No | 440 | | |
| 5,3 | Fit brackets to brickwall | No | 113 | | |
| 5,4 | Fit aluminium flashing (L-shaped) to roof and over gutter | m | 56 | | |
| | | | | | |
| 5,5 | Handrails: Install stainless steel hand rails with a 3 kN/m crowd load on the gutter side of the concrete roof. Rails base fixed into concrete slab with raw bolts and chemical anchors per manufacturers' specification. | m | 53 | | |
| 5,6 | Waterproof roof: Prepare and clean surface to remove all dirt and other rubble from flat roof. | m² | 816 | | |
| | | i | | | |
| 5,7 | Prime surface with a bitumen. Prime or similar and apply torch-on malthoid bitumen sheets. | m² | 816 | | |
| 5,7 | | m² | 816 1632 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

| | | 1 | · | | 1 |
|------------|---|------|----------|---------|--------|
| 5,9 | Waterproof Face brick walls: Clean all face brick and plastered wall with high pressure water jet to remove all grime and dirt. | m² | 1189 | | |
| | | | | | |
| 5,10 | Fill cracks with masonry patching plaster or similar | m² | 190 | | |
| | | | | | |
| 5,11 | Waterproof walls with approved water repellent or similar clear sprayable sealer. Apply 3 coats | m² | 3567 | | |
| | | | Carried | Forward | |
| Item No | Description | Unit | Quantity | Rate | Amount |
| | | | Brought | Forward | |
| 5,12 | Seal all-round window frames with Silicon or similar product. | No | 112 | | |
| | | | | | |
| 5,13 | External Plumbing: Remove external cast iron waste and vent pipes to be replaced with PVC. | m | 50 | | |
| 5,14 | Install 50mm dia. PVC vent pipes, including all the necessary fittings. | m | 20 | | |
| | | | | | |
| 5,15 | Install 110mm dia. PVC sewer pipes, including all the necessary fittings | m | 30 | | |
| | | | | | |
| 5,16 | Connect new pipes to existing sewer line manholes. | No | 4 | | |
| 5,17 | Install 40mm dia. PVC waste pipes to urinals and hand wash basins. | m | 20 | | |
| 5,18 | Replace existing polycop pipe with a white 22mm composite pipe | m | 40 | | |
| 5,19 | Internal Plumbing: Remove existing stainless steel urinals | No | 2 | | |
| | | | | | |
| 5,20 | Install porcelain flat back, push button flush valve urinals complete with all the fixtures as per manufacturer's specs. | No | 4 | | |
| | | | | | |
| 5,21 | Connect sanitizer to unit to each urinal | No | 4 | | |
| 5,22 | Remove and replace all existing hand wash basins complete with all the necessary fittings, plugs, grids and T02SABS pillar taps (Cold water only) | No | 8 | | |
| 5,23 | Remove existing toilet pans, waste fittings and flush masters. | No | 14 | | |
| | | | | | |
| 5,24 | Replace toilet pans | No | 14 | | |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data C2.2: Bill of quantities

DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

| | T | 1 | | I | T |
|--------------|--|------|----------|---------|--------|
| | 1 | | | | |
| 5,25 | Install flush systems on all toilet pans. | No | 14 | | |
| | | | | | |
| 5,26 | Allow for separate stopcocks for each set of | No | 6 | | |
| -, - | toilets, basins and kitchen units | | | | |
| | | | | | |
| F 07 | Replace the entire kitchen plumbing: water | 0 | | | |
| 5,27 | pipes to be wall mounted, taps and waste | Sum | 1 | | |
| | pipes. | | | | |
| | | | Carried | Forward | |
| Item | 1 | | Carrieu | Forward | |
| No | Description | Unit | Quantity | Rate | Amount |
| 110 | <u> </u> | | Brought | Forward | |
| | Replace the existing 100 litre geyser with | | | loiwara | |
| 5,28 | similar type | No | 1 | | |
| | , | | | | |
| | Walls and floors repairs: Remove all tiles on | _ | | | |
| 5,29 | kitchen and toilet wall tiles | m² | 59 | | |
| | | | | | |
| | Re-plaster all damaged area with plasterboard | | | | |
| 5,30 | filler or similar | m² | 59 | | |
| | | | | | |
| | Supply and install 150x150mm or 300x300mm | | | | |
| 5,31 | white glazed wall tiles to splash kitchen and | m² | 10 | | |
| | hand wash basin | | | | |
| | | | | | |
| 5,32 | Remove all vinyl floor tiles in passages, | m² | 197 | | |
| 0,02 | kitchen, stairs and entrance foyer | | | | |
| | | | | | |
| 5,33 | Supply and lay white ceramic floor tiles. | m² | 197 | | |
| | | | | | |
| 5 0 4 | Install ceramic expanding joints in passages | | 00 | | |
| 5,34 | every 10m apart or where construction joints | m | 22 | | |
| | occur | | | | |
| | Fit double bull anti-slip stair nosing at each | | | | |
| 5,35 | step | m | 45 | | |
| | | | | | |
| 5,36 | Install quarter round strips on tiles | m | 168 | | |
| 5,55 | model quarter round outpoort theo | | 130 | | |
| | Painting: Paint internal passage, kitchen and | | | | |
| 5,37 | toilet walls with 2 coats of acrylic PVA including | m² | 393 | | |
| 0,01 | plaster primer | | | | |
| | | | | | |
| | Paint internal passage, kitchen and toilet walls | | | | |
| 5,38 | ceiling with 1 coat of similar acrylic PVA | m² | 294 | | |
| | including plaster primer | | | | |
| | | | | | |
| 5,39 | Sand and varnish all doors | m² | 92 | | |
| 5,40 | Varnish floor skirting | m | 168 | | |
| | | | | | |
| | I. | 1 | 1 | | i . |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



DESCRIPTION OF THE WORKS:PROVISION OF THE SERVICES FOR THE RESURFACING OF ROADWAYS, UNDERGROUND SERVICES UPGRADE, PROVISION OF ACCESS CONTROL, SALT RIVER, CAPE TOWN FOR A PERIOD OF TWELVE (12)

| 5,41 | Paint burglar windows with silver aluminium paint | m² | 236 | | |
|------------|---|------|-----------|---------|--------|
| | | | | | |
| 5,42 | Shopfronts: Remove existing 3330x2550mm high wooden shop fronts | No | 2 | | |
| 5,43 | Remove existing 3330x2550mm high Aluminium shop fronts | No | 1 | | |
| 5,44 | Install 3330x2550mm high double Aluminium doors with 1800mm wide opening. | No | 1 | | |
| | | | Carried F | orward | |
| Item No | Description | Unit | Quantity | Rate | Amount |
| | | | Brought | Forward | |
| 5,45 | Replace existing reception counter with a 1800 longx650 deep 1100mm high wooden counter | No | 1 | | |
| 5,46 | Paint main entrance security gate with steel paint | m² | 9 | | |
| | | | | | |
| 5,47 | Remove existing 3330x2700mm high steel gate | No | 1 | | |
| 5,48 | Remove back passage door and replace with a security fire escape door including a fire alarm sensor. | No | 1 | | |
| 5,49 | Perimeter fence: Remove existing 1.2m high steel posts imbedded in 300x300x300mm deep concrete | No | 7 | | |
| 5,50 | Pamaya axisting diamand mach fonce | | 20 | | |
| 5,50 | Remove existing diamond mesh fence | m | 20 | | |
| 5,51 | Supply and install 1.5m high galvanised palisade fence. Complete with shear bolts or welded. | m | 70 | | |
| · | | | | | |
| 5,52 | Supply and install 5mm wide by 1.5m high galvanised palisade vehicle swing gate. Complete with shear bolts or welded. | No | 1 | | |
| 5,53 | Reinstate broken galvanised 1700x1500mm high pedestrian gate. | No | 1 | | |
| - | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | I . | | 1 | | î. |

TENDER NUMBER: TP/2023/06/0005/33418/RFP-CIDB



Part C2: Pricing Data C2.2: Bill of quantities

| | | | SECTION | B TOTAL | | |
|-------------------|-------------|--|---------|------------|--|--|
| | | | | | | |
| FINAL S | SUMMARY | | | AMOUNT (R) | | |
| | | | | | | |
| | | | | | | |
| SECTIO | ON A TOTAL | | | | | |
| | | | | | | |
| OFOTIO | N. D. TOTAL | | | | | |
| SECTIO | ON B TOTAL | | | | | |
| | | | | | | |
| TOTAL | (EXCL. VAT) | | | | | |
| | | | | | | |
| | | | | | | |
| VAT | | | | | | |
| | | | | | | |
| | | | | | | |
| TOTAL (INCL. VAT) | | | | | | |
| | | | | | | |
| | | | | | | |