

**KOUGA MUNICIPALITY EC108**

**TENDER NOTICE NO:156/ 2022**

**BULK & ELECTRIFICATION OF OCEAN VIEW PHASE1 AND 200 CONNECTIONS**

**CONTRACT NO. ME 1590/10**

**Issued by: Prepared by:**

**Kouga Municipality Kouga Municipality**

**Registry Department Electrical Department**

**Municipal Offices Municipal Offices**

**33 Da Gama Road 16 Woltemade Street**

**JEFFREY’S BAY JEFFREY’S BAY**

**6330 6330**

**Tel No. (042) 200 2200 Tel No. (042) 200 2200**

**Contact Name: Mr G Booysen Contact Name: Mr T Madatt**

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| --- |
|  |
| **TENDERER** |
|  |
| **TENDER AMOUNT** |
|  |
| **COMPLETION PERIOD** |

**TENDER NOTICE NO:156 / 2022**

**BULK & ELECTRIFICATION OF OCEAN VIEW PHASE1 AND 200 CONNECTIONS**

|  |  |
| --- | --- |
| **CLOSING DATE: 11 November 2022** | **CLOSING TIME: 12:00** |

**NAME OF BIDDER\*:** ………………………………………………………………………………………….

**ADDRESS\*:** …….…………..…………………………………………………….

….………..…….……………………………………………………

……….……..……………………………………………………….

……..……….……………………………………………………….

**TEL NUMBER\* :** …………………………………….………………………………...

**FAX NUMBER\* :** ………………………………………………….…………………...

**CENTRAL SUPPLIER DATABASE NO.\*:** ………..……………………………………………….….. **CIDB REGISTRATION NO.\*:** ………………………………………………………………….…...

**B-BBEE LEVEL OF CONTRIBITION\*:** ………………………………………………………………………

**TENDER AMOUNT (VAT INCLUDED)\*:** ………………………………………………………………………

**TOTAL TENDER AMOUNT SUMMARY :** …………………………………………………………….

**COMPLETED PERIOD:** ………………………………………………………………………

**(\* - TO BE COMPLETED BY BIDDER)**

**KOUGA MUNICIPALITY**

**TENDER NOTICE NO:156 / 2022**

**BULK & ELECTRIFICATION of Ocean view Phase1 and 200 connections**

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# **VOLUME 1**

# **THE TENDER**

# **PART T1:** TENDER PROCEDURE

T1.1 INVITATION TO TENDER

T1.2 TENDER CONDITIONS AND INFORMATION

T1.3 GENERAL CONDITIONS OF CONTRACT

T1.4 SPECIAL CONDITIONS OF CONTRACT

## T1.1: TENDER NOTICE AND INVITATION TO TENDER

#### INVITATION TO TENDER

**KOUGA LOCAL MUNICIPALITY (EC108)**

**DIRECTORATE: INFRASTRUCTURE & ENGINEERING**

**NOTICE NO: 156/2022**

**BULK INFRASTRUCTURE WORK AND ELECTRIFICATION OF** **OCEAN VIEW PHASE1 AND 200 CONNECTIONS IN JEFFREYS BAY**

Suitably qualified, capable and experienced Service Providers are hereby invited to submit tenders for Bulk Infrastructure Work and Electrification of Ocean View Phase1 and 200 Connections in Jeffreys Bay.

**Tenders**

An electronic copy of the tender document will be available on E-Tender portal [www.etender.gov.za](http://www.etender.gov.za) or the municipal website [www.kouga.gov.za](http://www.kouga.gov.za) as from Tuesday, 11 October 2022. After downloading the tender document from the website each prospective bidder, **MUST** email their contact details to [tenders@kouga.gov.za](mailto:tenders@kouga.gov.za) and copied to [kdupreez@kouga.gov.za](mailto:kdupreez@kouga.gov.za).

The link will also be available on the municipal website.

A compulsory virtual clarification session will be arranged for the **21 October 2022@12h00.** **Any RSVP or show of interest, received after the 11:30am on the 21 October 2022 would not be considered.**

Join Zoom Meeting   
<https://kouga-gov-za.zoom.us/j/93885432134?pwd=MVZwYVZVeGVEaEVUbUs3WkpHclZXZz09>

Meeting ID: 938 8543 2134   
Passcode: Ex9033

**Please note:**

* Telegraphic, telephonic, telex, facsimile, email or late tenders will not be accepted.
* This contract will be evaluated on the 80/20 point scoring system
* **A CIDB Contractor grading of 4EP or higher is required.**
* **A minimum functional assessment score of 75% will apply to this contract.**
* The Guidelines for locally produced goods or locally manufactured goods with a stipulated minimum threshold where applicable will be applied.
* A valid SARS Tax Clearance Certificate and the Tax compliance Status pin to be submitted.
* Prospective Service Providers must register on Kouga Municipality’s Supplier database as per the registration requirements.
* The National Treasury Central Supplier Database Summary report must be submitted.
* In order to claim Preference points a valid originally or certified B-BBEE Status level Verification certificate or a Sworn Affidavit completed on the DTI format must be submitted to validate the claim**.**
* The Council reserves the right to accept any tender and, or part thereof, appoint more than one contractor, and does not bind itself to accept the lowest or any tender. The Council reserves the right to appoint any contractor.
* The validity period for submission must be 120 days from the closing date.
* Tenders that are deposited in the incorrect box or delivered to any other venue will not be considered.

Any inquiries relating to this tender must be submitted in writing via e-mail to [tenders@kouga.gov.za](mailto:tenders@kouga.gov.za) and copied to [kdupreez@kouga.gov.za](mailto:kdupreez@kouga.gov.za).

Completed documents in a sealed envelope endorsed “**NOTICE NO: 156/2022: “BULK INFRASTRUCTURE WORK AND ELECTRIFICATION OF OCEAN VIEW PHASE1 AND 200 CONNECTIONS”**, must be placed in the Tender Box 21 St Croix Street (back entrance) or 16 Woltemade Street (front entrance), Jeffrey’s Bay, Room 122 on or before **FRIDAY, 11 NOVEMBER 2022 at 12:00.**

**C. DU PLESSIS** P.O. Box 21

**MUNICIPAL MANAGER** JEFFREYS BAY

6330

**For Placement:** Herald – 11 October 2022

Municipal Website/ Municipal Notice Boards in all offices/areas – 11 October 2022

## T1.2: TENDER CONDITIONS AND INFORMATION

#### TENDER CONDITIONS AND INFORMATION

**T1.2.1 Completion of Tender Documents**

(a) The original tender document must be completed fully in black ink and originally signed by the authorised signatory to validate the tender. Section 5: DECLARATION must be completed and signed by the authorised signatory and returned. Failure to do so will result in the disqualification of the tender.

(b) Tender documents may not be retyped. Retyped documents will result in the disqualification of the tender.

(c) The complete original tender document must be returned. Missing pages will result in the disqualification of the tender.

(d) No unauthorised alteration of this set of tender documents will be allowed. Any unauthorised alteration will disqualify the tender automatically. Any ambiguity has to be cleared with contact person for the tender before the tender closure.

(e) The tender document as provided by the Municipality’s Supply Chain Management Section will be the prevailing document in the event of an inconsistency between the completed submitted tender document by a bidder and the tender document provided by the Municipality.

**T1.2.2 Compulsory Documentation**

**T1.2.2.1 Tax Clearance Certificate**

(a)A copy of a Tax Compliance Status Pin, printed from the South African Revenue Service (SARS) website, must accompany the bid documents.  The onus is on the bidder to ensure that their tax matters with SARS are in order.

(b) In the case of a Consortium/Joint Venture every member must submit a separate Tax Compliance Status Pin, printed from the SARS website, with the bid documents.

(c) If a bid is not supported by a Tax Compliance Status Pin as an attachment to the bid documents, the Municipality reserves the right to obtain such documents after the closing date to verify that the bidder’s tax matters are in order. If no such document can be obtained within a period as specified by the Municipality, the bid will be disqualified.

(d) The Tax Compliance Status Pin will be verified by the Municipality on the SARS website.

**T1.2.2.2 Municipal Rates, Taxes and Charges**

(a) A copy of the bidder’s and those of its directors’ municipal accounts (for the Municipality where the bidder pays his account) for the month preceding the tender closure date must accompany the tender documents. If such a copy does not accompany the bid document of the successful bidder, the Municipality reserves the right to obtain such documents after the closing date to verify that their municipal accounts are in order.

(b) Any bidder which is or whose directors are in arrears with their municipal rates and taxes or municipal charges due to any Municipality or any of its entities for more than three months and have not made an arrangement for settlement of same before the bid closure date will be unsuccessful.

(c) If a bidder rents their premises, proof must be submitted that the rental includes their municipal rates and taxes or municipal charges or that their rent is not in arrears.

**T1.2.2.3 Subcontracting**

(a) The Contractor shall not subcontract the whole of the Contract.

(b) A minimum of 10% of the project value will be subcontract to CIDB registered 1EP EME qualified companies to groom local skills development. The allocated 10% will be subject to the contractor’s discretion. Kouga Municipality to provide list of approved 1EP EME contractors.

(c) The contractual relationship between the Contractor and any subcontractors selected by the Contractor in consultation with the Municipality in accordance with the requirements of and a procedure contained within the Scope of Work, shall be the same as if the Contractor had appointed the subcontractor in terms of paragraph (b) above.

(d) Any consent granted in accordance with paragraph (b) or appointment of a subcontractor in accordance with paragraph (c) shall not imply a contract between the Municipality and the subcontractor, or a responsibility or liability on the part of the Municipality to the subcontractor and shall not relieve the Contractor from any liability or obligation under the Contract and he shall be liable for the acts, defaults and neglects of any subcontractor, his agents or employees as fully as if they were the acts, defaults or neglects of the Contractor, his agents or employees.

(e) The Contractor shall not be required to obtain such consent for –

1. the provision of labour, or
2. the purchase of materials which are in accordance with the Contract, or
3. the purchase or hire of Construction Equipment.

**T1.2.2.4 Validity of BEE certificates:**

1. If the certificate was issued by a verification agency the following must be on the face of the certificate:

SANAS logo, unique BVA number, must be an original certificate or certified copy of the original, the name and physical location of the bidder, the registration number and, where applicable, the VAT number of the bidder, the date of issue and date of expiry of the certificate, the certificate number for identification and reference, the scorecard that was used (for example EME, QSE or Generic), the name and / or logo of the Verification Agency, the certificate must be signed by the authorized person from the Verification Agency and the B-BBEE Status Level of Contribution obtained by the bidder.

1. If certificate was issued by an Auditor/ Accounting Officers**:**

The Accounting Officer’s or Registered Auditor’s letter head with full contact details, the Accounting Officer’s or Registered Auditor’s practice numbers, the name and the physical location of the bidder, the registration number and, where applicable, the VAT number of the bidder, the date of issue and date of expiry, the B-BBEE Status Level of Contribution obtained by the measured entity, the total black shareholding and total black female shareholding, the B-BBEE Status Level of Contribution obtained by the bidder and must be an original certificate or a copy of the original.

1. If the certificate was issued by registered auditors approved by IRBA

Clearly identify the B-BBEE approved registered auditor by the auditor’s individual registration number with IRBA and the auditor’s logo, clearly record an approved B-BBEE Verification Certificate identification reference in the format required by the SASAE, reflect relevant information regarding the identity and location of the measured entity, identify the Codes of Good Practice or relevant Sector Codes applied in the determination of the scores, record the weighting points (scores) attained by the measured entity for each scorecard element, where applicable, and the measured entity’s overall B-BBEE Status Level of Contribution, reflect that the B-BBEE Verification Certificate and accompanying assurance report issued to the measured entity is valid for 12 months from the date of issuance and reflect both the issuance and expiry date,  and the B-BBEE Status Level of Contribution obtained by the bidder and must be an original certificate or a copy of the original.

1. A sworn affidavit prescribed by the B-BBEE Codes of Good Practice**.**

**FAILURE TO COMPLY WITH THE ABOVEMENTIONED WILL RESULT IN NO PREFERENCE POINTS BEING AWARDED**

**T1.2.2.5 Letter of Good Standing from the Commissioner of Compensation**

(a) A valid Letter of Good Standing from the Compensation Commissioner or a copy thereof, must accompany the bid documents.

(b) In the case of a Consortium/Joint Venture every member must submit a separate valid Letter of Good Standing from the Compensation Commissioner or a copy thereof with the bid documents.

(c) If a bid is not supported by a valid Letter of Good Standing from the Compensation Commissioner or a copy thereof, as an attachment to the bid documents, the Municipality reserves the right to obtain such document after the closing date. If no such document can be obtained within a period as specified by the Municipality, the bid will be disqualified.

(d) If a bid is accompanied by proof of application for valid Letter of Good Standing from the Compensation Commissioner, the original or copy thereof must be submitted on/or before the final date of award.

(e) Should a bidder’s Letter of Good Standing from the Compensation Commissioner expire during the contract period, a valid certificate must be submitted within an agreed upon time.

(f) The right is reserved to not award a tender if a valid Letter of Good Standing from the Compensation Commissioner or a copy thereof is not submitted within the requested time.

**T1.2.2.6 Joint venture information**

In the case of a Trust, Consortium or Joint venture the following will apply:

1. The Trust, Consortium or Joint venture agreement must be submitted as part of the bid documents.
2. No amendments to Trust, Consortium or Joint venture agreement may be made without the prior approval of the Municipality; if not accepted by the Municipality and the Trust, Consortium or Joint venture continue without approval the Trust, Consortium or Joint venture contract can be cancelled as if poor performance had taken place.
3. The Trust, Consortium or Joint venture will only qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits, together with the submission of the bid, their B-BBEE status level certificate issued in the name of the Trust, Consortium of Joint venture.

(d) All members of the trust, consortium or joint venture must submit, with the bid documents:

d.1) a valid tax clearance certificate or SARS tax pin, individually.

d.2) an agreement that clearly provides clarity of profit and liability sharing; and

d.3) a resolution taken by the board of directors of the consortium or joint venture and other information.

d.4) that agrees with the trust, consortium or joint venture agreement as detailed in on page 101.

1. For the evaluation of functionality regarding a consortium or joint venture refer to the functionality section.

## T1.3: GENERAL CONDITIONS OF CONTRACT

#### GENERAL CONDITIONS OF CONTRACT

1. Definitions

1. The following terms shall be interpreted as indicated:

1.1 “Closing time” means the date and hour specified in bidding documents for the receipt of bids.

1.2 “Contract” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

1.3 “Contract price” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.

1.4 “Corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.

1.6 “Country of origin” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

1.7 “Day” means calendar day.

1.8 “Delivery” means delivery in compliance of the conditions of the contract or order.

1.9 “Delivery ex stock” means immediate delivery directly from stock actually on hand.

1.10 “Delivery into consignees store or to his site” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.

1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.

1.12” Force majeure” means an event beyond the control of the supplier and not involving the supplier’s fault or negligence and not foreseeable.

Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

1.13 “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.

1.14 “GCC” means the General Conditions of Contract for electrical, and construction works – third edition 2015.

1.15 “Goods” means all the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

1.16 “Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.

1.17 “Local content” means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.

1.18 “Manufacture” means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.

1.19 “Order” means an official written order issued for the supply of goods or works or the rendering of a service.

1.20 “Project site,” where applicable, means the place indicated in bidding documents.

1.21 “Purchaser” means the organization purchasing the goods.

1.22 “Republic” means the Republic of South Africa.

1.23 “SCC” means the Special Conditions of Contract.

1.24 “Services” means that functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.

1.25 “Written” or “in writing” means handwritten in ink or any form of electronic or mechanical writing.

1. Application

2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

2.3 Where such special conditions of contract are in confliction with these general conditions, the special conditions will apply.

1. General

3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.

3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from [www.treasury.gov.za](http://www.treasury.gov.za)

1. Standards

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

1. Use of contract and information, inspection.

5.1 The supplier shall not, without the purchaser’s prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.

5.2 The supplier shall not, without the purchaser’s prior written consent, make use of any document or information mentioned in GCC clause 6.1 except for purposes of performing the contract.

5.3 Any document, other than the contract itself mentioned in GCC clause 6.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier’s performance under the contract if so, required by the purchaser.

5.4 The supplier shall permit the purchaser to inspect the supplier’s records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser if so, required by the purchaser.

1. Patent rights

6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

1. Performance security

7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.

7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier’s failure to complete his obligations under the contract.

7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms: (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser’s country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or (b) a cashier’s or certified cheque.

7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier’s performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

1. Inspections, tests and analyses

8.1 All pre-bidding testing will be for the account of the bidder.

8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.

8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.

8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

8.7 Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with 7 supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

1. Packing

9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods’ final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

1. Delivery and documents

10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

10.2 Documents to be submitted by the supplier are specified in SCC.

1. Insurance

11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

1. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

1. Incidental services

13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

(a) performance or supervision of on-site assembly and/or commissioning of the supplied goods,

(b) furnishing of tools required for assembly and/or maintenance of the supplied goods,

(c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods,

(d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract and

(e) training of the purchaser’s personnel, at the supplier’s plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

1. Spare Parts

14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

1. such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and

(b) In the event of termination of production of the spare parts:

(i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and

(ii) Following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

1. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser’s specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier’s risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract. 9

1. Payment

16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.

16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.

16.4 Payment will be made in Rand unless otherwise stipulated in SCC.

1. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser’s request for bid validity extension, as the case may be.

1. Contract amendments

18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

1. Assignment

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser’s prior written consent.

1. Subcontracts

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

1. Delays in the supplier’s performance

21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier’s notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier’s time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.

21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier’s point of supply is not situated at or near the place where the supplies are required, or the supplier’s services are not readily available.

21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.

21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier’s expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

1. Penalties

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

1. Termination for default

23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part: (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2; (b) if the Supplier fails to perform any other obligation(s) under the contract; or (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard 11 the intended penalty as not objected against and may impose it on the supplier.

23.5 Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.

23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:

(i) the name and address of the supplier and / or person restricted by the purchaser

(ii) the date of commencement of the restriction

(iii) the period of restriction and

(iv) the reasons for the restriction.

These details will be loaded in the National Treasury’s central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person’s name be endorsed on the Register for Tender Defaulters. When a person’s name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

1. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him

1. Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

1. Termination for insolvency

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

1. Settlement of Disputes

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

27.5 Notwithstanding any reference to mediation and/or court proceedings herein, (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and (b) the purchaser shall pay the supplier any monies due the supplier.

1. Limitation of liability

28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6:

(a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and 13

(b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

1. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

1. Applicable law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.

1. Notices

31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.

31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

1. Taxes and duties

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser’s country.

32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

1. National Industrial Participation (NIP) Programme

33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

## T1.5: TENDER DATA

#### TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of Board Notice 136 of 2015 in Government Gazette No. 38960 of 10 July 2015, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (See [www.cidb.org.za](http://www.cidb.org.za))

Each Tenderer shall obtain its own copy of the Standard Conditions of Tender.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

**The additional conditions of tender are:**

**Clause Tender**

**Number Data**

**F.1 General**

F.1.1 **Actions**

*Add the following to F.1.1:*

The Employer is KOUGA MUNICIPALITY, represented by the Municipal Manager.

F.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

F.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

*Note:  
1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.*

*2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.*

F.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

F.1.2 **Tender Documents**

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

*Add the following to F.1.2:*

“The following documents form part of this contract:

The General Conditions of Contract for Construction Works, Third Edition (2015), or as amended, as published by the South African Association of Consulting Engineers, the Association of Municipal Electricity Undertakings of S.A., the Electrical Contractors Association (S.A.), the Steel Engineering Industries Federation of South Africa, the Specialist Engineering Contractor’s Committee and the National Building Research Institute, (C.S.I.R.). They are based on the Third Edition (2015) of the SAICE - Conditions of Contract for Construction Works. This publication is available, and Tenderers must obtain copies at their own cost from the South African Association of Consulting Engineering (SAACE).

The Tender Documents issued by the Employer comprise:

**Volume 1:** The Tender Document (this document), in which is bound:

**The Tender**

**Part T 1: Tendering Procedure**

T 1.1 Tender notice and invitation to tender

T 1.2 Tender data

**Part T 2: Returnable Documents**

T 2.1 List of returnable documents

T 2.2 Returnable schedule

**The Contract**

**Part C 1: Agreement and Contract Data**

**Part C 2: Pricing Data**

**Part C 3: Scope of Work**

**Part C 4: Site Information**

**Annexures:**

Annexure A Project Board

Volume 1 is deemed the “**Returnable Documents**”, which must be returned to the Employer in terms of submitting a tender offer.

**The successful Tenderer will be expected to sign the agreement in Part C 1 of this tender document within 14 (fourteen) days of the date of notification by the Municipality that his/her tender has been accepted**.

F.1.3 **Interpretation**

F.1.3.1The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

F.1.3.2These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

a) conflict of interest means any situation in which:

i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially

ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or

iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.

b) comparative offer means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration

c) corrupt practice means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process

d) fraudulent practice means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels.

e) organization means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body

f) functionality means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 **Communication and employer’s agent**

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for nonreceipt of communications from or by a tenderer. The name and contact details of the employer’s agent are stated in the tender data.

*Add the following to F.1.4:*

Attention is drawn to the fact that verbal information, given by the Employer’s Agent during site visits / clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer. Only information issued formally by the Employer’s Agent in writing to Tenderers will be regarded as amending the Tender Document.

Writing shall be in the English and/or Afrikaans Language.

The Employer’s Agent is:

Name: Mr. JB Snyman

CVW CONSULTING ENGINEERS (Pty) LTD T/A CVW ELECTRICAL

P O Box 281

MOSSEL BAY, 6520

Tel.: 044 – 691 2074

Fax: 044 – 691 2075

E-mail: [jb.cvw@cvw-e.com](mailto:jb.cvw@cvw-e.com)

F.1.5 **Cancellation and Re-Invitation of Tenders**

F1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if:

*Add the following to F1.5.1*

Section 13 (1) of the Preferential Procurement Regulations 2017 “An organ of state may, prior to the award of a tender, cancel a tender if-

1. due to changed circumstances, there is no longer a need for the services, works or goods requested; or
2. funds are no longer available to cover the total envisaged expenditure; or
3. no acceptable tenders are received.

The tender be cancelled as a result of there is a material irregularity in the tender process.

F1.5.2 The decision to cancel a tender must be published in the CIDB website and in the government Tender Bulletin for the media in which the original tender invitation was advertised.

F.1.6 **Procurement procedures**

F.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

F.1.6.2 Competitive negotiation procedure

F.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of 36 F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

F.1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer’s competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

F.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

F.1.6.2.4 The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderers have been requested to submit their best and final offer.

F.1.6.3 Proposal procedure using the two stage-system.

F.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

F.1.6.3.2 Option 2

F.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

F.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data and award the contract in terms of these conditions of tender.

F.2 **Tenderer’s obligations**

F.2.1 **Eligibility**

*Add the following to F.2.1:*

Only those Bidders who satisfy the following criteria are eligible to submit bids:

F.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

*Add the following to F.2.1.1:*

Only those Bidders who are registered with the CIDB, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 4EP or higher class of construction work, are eligible to submit tenders.

Joint Ventures are eligible to submit tenders provided that:

1. every member of the Joint Venture is registered with the CIDB,
2. the lead partner has a contractor grading designation in the 4EP or higher class of construction work; and
3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 6EP or higher class of construction work,
4. the contract participation of each member in a Joint Venture shall be in accordance with the individual member’s CIDB contractor grading designation.

A certified copy of the Tenderer’s registration and grading certificate with the CIDB must be included with the tender.

F.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer’s written approval to do so prior to the closing time for tenders.

F.2.2 **Cost of tendering**

*Add the following to F.2.2:*

The Employer will **not** compensate the Bidder for making a tender submission.

F2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer comply with requirements.

F2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

F.2.3 **Check documents**

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

F.2.4 **Confidentiality and copyright of documents**

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 **Reference documents**

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

F.2.6 **Acknowledge addenda**

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary, apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

F.2.7 **Clarification meeting**

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

*Add the following to F.2.7:*

The arrangements for **a compulsory** briefing meeting are as stated in the Tender Notice and Invitation to Tender.

Bidders should be represented at the clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.

F.2.8 **Seek clarification**

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

*Add the following to F.2.8:*

*See F.3.1 for clarification.*

F.2.9 **Insurance**

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

*Add the following to F.2.9:*

The Employer will provide **no** insurance.

F.2.10 **Pricing the tender offer**

F.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT)), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.

*Add the following to F.2.10.1:*

The rates and/or prices will be subject to escalation. Price adjustment allowed. CPA (SEIFSA) will be applicable for the outer years. 1st Year is FIXED.

See C 1.2: Contract Data: Part 1: Data Provided by the Employer: Clause 6.8.2.

Diagram, text

Description automatically generated

* P – Escalated or New price
* P0 – Base price
* L – Labour percentage
* S – Steel percentage
* EI – Relevant index at the end of the escalation period
* SI – Relevant index at the start of the escalation period

F2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 **Alterations to documents**

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

F.2.12 **Alternative tender offers**

F.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

*Add the following to F.2.12.1:*

A Bidder who submits an offer properly and that complies with the specifications **in all regards** may subsequently also submit an alternative offer on his own initiative. The alternative bid shall be submitted on a separate complete set of Tender Documents and shall be clearly marked as an alternative tender. All proposed technical data, as well as the modified Pricing Data, shall be submitted with the alternative tender. Should the Tenderer’s offer be in accordance with the specification and **in all regards** be acceptable to the Client, his alternative offer may be considered for purposes of awarding the Contract. The alternative should be suitable and advantageous to the Employer. Any deviation from the specifications or alternative tender conditions must be stated clearly and any savings or additional expenses for the Client, which may be brought about by each deviation or alternative suggestion, must be quantified in the tender document.

Where reference is made to trademarks, the Tenderer may tender for **similar approved** products. Care must be taken, however, that the tendered product is the same and of equal or higher quality than the specified product under **all** circumstances.

Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer’s standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions on the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the Tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer’s standards and requirements.

The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer’s costs of confirming the acceptability of the detailed design before it is constructed.

All products must be applied, installed, put into use, etc. **in accordance with** the Supplier’s instructions.

The Employer will not be bound to accept any alternative tenders.

**No unauthorised alteration of this set of bid documents will be allowed. Any unauthorised alteration will disqualify the tender automatically. Any ambiguity has to be cleared with the contact person for the tender before tender closure.**

F.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

F.2.12.3 An alternative tender offer may only be considered in the event that the main tender offer is the winning tender.

F.2.13 **Submitting a tender offer**

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

*Add the following to F.2.13.1:*

An electronic copy of the Bill of Quantities will be provided at a Tenderer’s request for the Tenderer’s own use.

This electronic copy of the Bill of Quantities **must not** be submitted in lieu of the priced copy required in terms of Clause F.2.13.1.

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

*Add the following to F.2.13.2:*

Parts of each Tender offer communicated on paper shall be submitted as an original plus **0 (nil)** copies.

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

*Add the following after the first sentence of F.2.13.3:*

The bid shall be signed by a person duly authorised to do so. Bidders submitted by Joint Ventures of two or more firms shall be accompanied by the document of formation of the Joint Venture, authenticated by a public notary or other official deputed to witness sworn statements, in which is defined precisely the conditions under which the Joint Venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several firms forming the Joint Venture, and any other information necessary to permit a full appraisal of its functioning.

F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

*Add the following to F.2.13.4:*

The Employer’s address for delivery of tender offers and identification details to be shown on each tender offer package are:

**Location of tender box:**

**”**, must be placed in the Tender Box 21 St Croix Street (back entrance) or 16 Woltemade Street (front entrance), Jeffrey’s Bay, Room 122

**Identification details**: TENDER NOTICE NO:156 / 2022

**Sealed tenders with the Bidder’s name and address and the endorsement:**

**TENDER NOTICE NO: 156 / 2022 –** **BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections**

on the envelope, must be placed in the appropriate official tender box at the abovementioned address.

Bids will be opened on the closing date immediately after the closing time specified in the tender documents. If requested by any Bidder present, the names of the Bidders, and if practical, the total amount of each bid and of any alternative bids will be read aloud.

F.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

*Add the following to F.2.13.5:*

A two-envelope procedure will **not** be followed.

F.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked ―financial proposal and place the remaining returnable documents in an envelope marked ―technical proposal. Each envelope shall state on the outside the employer’s address and identification details stated in the tender data, as well as the tenderer's name and contact address.

*Add the following to F.2.13.6:*

Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will **not** be accepted.

F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

F.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

F.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

F.2.14 **Information and data to be completed in all respects**   
Accept that tender offers which do not provide all the data or information requested,

completely and in the form required, may be regarded by the employer as non-responsive.

F.2.15 **Closing time**

F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

*Add the following to F.2.15.1:*

The closing time for submission of tender offers is **12:00** as stated in the Tender Notice and Invitation to Tender.

F.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

F.2.16 **Tender offer validity**

F.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

*Add the following to F. 2.16.1:*

The tender offer validity period is **90 (ninety)** days.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer’s agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as “SUBSTITUTE”.

F.2.17 **Clarification of tender offer after submission**

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

*Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.*

*Add the following to F.2.17:*

A bid may be rejected if the unit rates or lump sums for some of the items in the Bill / Schedule of Quantities are, in the opinion of the Employer, unreasonable or out of proportion, and the Tenderer fails, within a period of 7 (seven) days of having been notified in writing by the Employer to justify any specific rates or lump sums (i.e. to provide a financial breakdown of how such rates or sums were obtained) or to adjust the unit rates or lump sums for such items while retaining the total of the prices unchanged.

F.2.18 **Provide other material**

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer’s commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer’s request, the employer may regard the tender offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19 **Inspections, tests and analysis**

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

*Add the following to F.2.19:*

Access shall be provided for the following inspections, tests and analysis: **Trial pits / Soil investigation**

F.2.20 **Submit securities, bonds and policies**

If requested, submit for the employer’s acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

*Add the following to F.2.20:*

The successful Bidder will have to provide a guarantee as security and documentary proof that the necessary insurance policies required in terms of the Contract have been taken out and provide proof of premium payments to the satisfaction of the Employer.

F.2.21 **Check final draft**

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 **Return of other tender documents**

If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data*.*

*Add the following to F.2.22:*

Return all retained tender documents and drawings within 28 (twenty-eight) days of the expiry date of the validity period - **Not applicable**

F.2.23 **Certificates**

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

*Add the following to F.2.23:*

The Bidder is required to submit with his tender:

**Tax Clearance Certificate**

(a)A copy of a Tax Compliance Status Pin and a Tax Compliance Certificate, printed from the South African Revenue Service (SARS) website, must accompany the bid documents.  The onus is on the bidder to ensure that their tax matters with SARS are in order.

(b) In the case of a Consortium/Joint Venture every member must submit a separate Tax Compliance Status Pin and a Tax Compliance Certificate, printed from the SARS website, with the bid documents.

(c) If a bid is not supported by a Tax Compliance Status Pin and a Tax Compliance Certificate as an attachment to the bid documents, the Municipality reserves the right to obtain such documents after the closing date to verify that the bidder’s tax matters are in order. If no such document can be obtained within a period as specified by the Municipality, the bid will be disqualified.

(d) The Tax Compliance Status Pin will be verified by the Municipality on the SARS website.

F.3 **The employer’s undertakings**

F.3.1 **Respond to requests from the tenderer**

F.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements,

b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or

c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

F.3.2 **Issue Addenda**

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

F.3.3 **Return late tender offers**

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

F.3.4 **Opening of tender submissions**

F.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers’ agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

*Add the following to F.3.4.1:*

The time and location for opening of tender offers is:

Time: 12:05 **on Friday, 11 November 2022**

Location: 21 St Croix Street (back entrance) or 16 Woltemade Street (front entrance), Jeffrey’s Bay, Room 122

Bids will be opened on the closing date immediately after the closing time specified in the Bid documents. If requested by any Bidder present, the names of the Bidders and if practical, the total amount of each tender and of any alternative tenders will be read out loud.

F.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 **Two-envelope system**

*Add the following to F.3.5:*

The 2 (two) - envelope procedure will not be followed.

F.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers’ agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

F.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

F.3.6 **Non-disclosure**

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

F.3.7 **Grounds for rejection and disqualification**

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.8 **Test for responsiveness**

F.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

a) complies with the requirements of these Conditions of Tender,

b) has been properly and fully completed and signed, and

c) is responsive to the other requirements of the tender documents.

*Add the following Sub-clause F.3.8.1:*

Bids will be considered non-responsive if:

1. the bid is not compliant with specifications
2. the Bidder has not completed and/or signed the Offer portion of C 1.1: Form of Offer and Acceptance, Part 2 of C1.2: Contract Data and C2.2: Bills/Schedule of Quantities
3. the Bidder does not comply with the minimum contract participation goals as stipulated in terms of the Employer’s Preference Procurement policy
4. Bidder has failed to clarify or submit any supporting documentation within the specific days of being requested to do so in writing by SCM.
5. The Bidder has not completed and/or signed the Compulsory Enterprise Questionnaire in terms of the Supply Chain Management Act and Local Government Municipal Finance Management Act.

F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer*'s* opinion, would:

a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work*,*

b) significantly change the Employer*'s* or the tenderer's risks and responsibilities under the contract, or

c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.9 **Arithmetical errors, omissions and discrepancies**

F.3.9.1 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

a) the gross misplacement of the decimal point in any unit rate

b) omissions made in completing the pricing schedule or bills of quantities; or

c) arithmetic errors in:

i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or

ii) the summation of the prices.

F3.9.2 The employer must correct the arithmetical errors in the following manner:

a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.

b) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.

c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

F.3.10 **Clarification of a tender offer**

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

F.3.11 **Evaluation of tender offers**

*Add the following to F.3.11:*

Bids will be evaluated in terms of their responsiveness to the bid specifications and requirements as well as such additional criteria as set out in this set of tender documents.

F.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

*Add the following to F.3.11.1:*

The procedure for the evaluation of responsive tenders is **Method 2: Functionality, Price and Preference.**

F.3.11.2 Method 1: Price and Preference

In the case of a price and preference:

1) Score tender evaluation points for price

2) Score points for BBBEE contribution

3) Add the points scored for price and BBBEE.

F.3.11.3 Method 2: Functionality, Price and Preference

In the case of a functionality, price and preference:

1) Score functionality, rejecting all tender offers that fail to achieve the minimum number of points for functionality as stated in the Tender Data.

2) No tender must be regarded as an acceptable tender if it fails to achieve the minimum qualifying score for functionality as indicated in the tender invitation.

3) Tenders that have achieved the minimum qualification score for functionality must be evaluated further in terms of the preference points system prescribed in paragraphs 4 and 4 and 5 below.

The 80/20 preference point system for acquisition of services, works or goods up to Rand value of R50 million

4) (a)(i) The following formula must be used to calculate the points for price in respect of tenders (including price quotation) with a rand value equal to, or above R 30 000 and up to Rand value of R 50 000 000 ( all applicable taxes included):

****

*Where*

*Ps = Points scored for comparative price of tender or offer under consideration*

*Pt = Comparative price of tender or offer under consideration; and*

*Pmin = Comparative price of lowest acceptable tender or offer.*

(4) (b) Subject to subparagraph(5)(c), points must be awarded to a tender for attaining the B- BBEE status level of contributor in accordance with the table below:

|  |  |
| --- | --- |
| B-BBEE STATUS LEVEL OF CONTRIBUTOR | NUMBER OF POINTS |
| 1 | 20 |
| 2 | 18 |
| 3 | 16 |
| 4 | 12 |
| 5 | 8 |
| 6 | 6 |
| 7 | 4 |
| 8 | 2 |
| Non-compliant contributor | 0 |

(4) (c) A maximum of 20 points may be allocated in accordance with subparagraph (4)(b).

(4) (d) The points scored by tender in respect of B-BBEE contribution contemplated in contemplated in subparagraph (4) (b) must be added to the points scored for price as calculated in accordance with subparagraph (4)(a).

(4) (e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the highest total number of points.

The 90/ 10 preference points system for acquisition of services, works or goods with a Rand value above R 50 million

(5) (a) The following formula must be used to calculate the points for price in respect of tenders with a Rand value above R50 000 000 (all applicable taxes included):

****

*Where*

*Ps = Points scored for comparative price of tender or offer under consideration*

*Pt = Comparative price of tender or offer under consideration; and*

*Pmin = Comparative price of lowest acceptable tender or offer.*

(5) (b) Subject to subparagraph(5)(c), points must be awarded to a tender for attaining the B- BBEE status level of contributor in accordance with the table below:

|  |  |
| --- | --- |
| B-BBEE STATUS LEVEL OF CONTRIBUTOR | NUMBER OF POINTS |
| 1 | 10 |
| 2 | 9 |
| 3 | 8 |
| 4 | 5 |
| 5 | 4 |
| 6 | 3 |
| 7 | 2 |
| 8 | 1 |
| Non-compliant contributor | 0 |

(5) (c) A maximum of 10 points may be allocated in accordance with subparagraph (5)(b).

(5) (d) The points scored by tender in respect of B-BBEE contribution contemplated in contemplated in subparagraph (5) (b) must be added to the points scored for price as calculated in accordance with subparagraph (5)(a).

(5) (e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the highest total number of points.

F.3.11.6 Decimal places

Score price, preference and functionality, as relevant, to two decimal places.

F.3.11.7 Scoring Price

Score price of remaining responsive tender offers using the following formula:

NFO = W1 x A

where: NFO is the number of tender evaluation points awarded for price.

W1 is the maximum possible number of tender evaluation points awarded for price as stated in the Tender Data.

A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

|  |  |  |  |
| --- | --- | --- | --- |
| Formula | Comparison aimed at achieving | Option 1a | Option 2a |
| 1 | Highest price or discount | A = (1 +(P - Pm))  Pm | A = P / Pm |
| 2 | Lowest price or percentage commission / fee | A = (1 -(P - Pm))  Pm | A = Pm / P |
| a Pm  P | Is the comparative offer of the most favorable comparative offer.  Is the comparative offer of the tender offer under consideration |  |  |

*Add the following to F.3.11.7:*

The financial offer will be scored using **Formula 2 (Option 1)** where the value of W1 is 8**0 (eighty)** points.

A maximum of 8**0 (eighty)** tender evaluation points (W1) will be scored for Financial Offers from responsive tenders under consideration scoring points according to the formula:

NFO = W1 x [1– (P – Pm)] where,

Pm

NFO = Number of tender evaluation points awarded for Financial Offer

W1 = Maximum bid evaluation points awarded for Financial Offer = 80, (eighty), points

P = Financial Offer = Tender Sum (including VAT, contingencies, provisional sums and escalation) = the comparative offer of the tender offer under construction

Pm = Lowest Bid Sum (including VAT, contingencies, provisional sums and escalation) = the comparative offer of the most favorable comparative offer.

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences.

Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring functionality

Score each of the criteria and sub criteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

*NQ* = *W2* x *SO / MS*

*where: SO is the score for quality allocated to the submission under consideration,*

*MS is the maximum possible score for quality in respect of a submission; and*

*W2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data*

F.3.12 **Insurance provided by the employer**

If requested by the proposed successful tenderer, submit for the tenderer*'s* information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

F.3.13 **Acceptance of tender offer**

Accept the tender offer, if in the opinion of the employer, it does not present any risk and only if the tenderer:

a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer’s procurement,

b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,

c) has the legal capacity to enter into the contract,

d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,

e) complies with the legal requirements, if any, stated in the tender data, and

f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

*Add the following to F.3.13:*

The Municipality reserves the right to withdraw any invitation to tender and/or to re-advertise or to reject any tender or to accept a part of it. The Municipality does not bind itself to accepting the lowest tender.

Tender offers will only be accepted if:

1. the Tenderer has included within this document, or provided on request, copy of a Tax Compliance Status Pin, printed from the South African Revenue Service (SARS) website, must accompany the bid documents.  The onus is on the bidder to ensure that their tax matters with SARS are in order
2. the Tenderer is registered with the Construction Industry Development Board (CIDB) in the appropriate CIDB Contractor grading designation. The bidders CIDB grading should be appropriate and active on day of evaluation and not on closing date and time
3. the Tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector
4. the Tenderer has not:
   1. abused the Employer’s Supply Chain Management System; or
   2. failed to perform on any previous contract and has been given a written notice to this effect.
5. the Bidder has completed the Compulsory Enterprise questionnaire and there are no conflicts of interest which may impact on the Tenderer’s ability to perform the contract in the best interests of the Employer or potentially compromise the tender process.

(vi) the Bidder is registered and in good standing with the compensation fund or with a licensed compensation insurer.

(vii) the Employer is reasonably satisfied that the Tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.

Bid offers will be rejected if they show any additional items not originally included in the tender documents, conditional or incomplete offers, irregularities of any kind in the tender.

A tender may be rejected if the unit rates, or lump sums for some of the items in the Schedule of Quantities are, in the opinion of the Employer, unreasonable or out of proportion, and the Tenderer Fails, within a period of 7 (seven) days of having been notified in writing by the Employer to justify any specific rates or lump sums (i.e. to provide a financial breakdown of how such rates or sums were obtained) or to adjust the unit rates or lump sums for such items while retaining the tender sum unchanged.

The Employer does not bind himself to accept the lowest priced tender, highest point’s tender or any tender offer. The Employer has the right to accept any part of a tender as he may deem expedient subject to negotiation with the successful Tenderer for the whole tender.

*Add the following new sub-clause F.3.13.1:*

F.3.14 **Prepare contract documents**

F.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

a) addenda issued during the tender period,

b) inclusion of some of the returnable documents, and

c) other revisions agreed between the employer and the successful tenderer.

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 **Complete adjudicator's contract**

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.16 **Notice to unsuccessful tenderers**

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer’s acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 **Provide copies of the contracts**

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

*Add the following to F.3.17:*

The number of paper copies of the signed contract to be provided by the Employer is **one**.

F.3.18 **Provide written reasons for actions taken**

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

F3.19 **Transparency in the procurement process**

F3.19.1 The CIDB prescripts require that tenders must be advertised and be registered on the CIDB i.Tender system.

F3.19.2 The employer must adopt a transparency model that incorporates the disclosure and accountability as transparency requirements in the procurement process.

F3.19.3 The transparency model must identify the criteria for selection of projects, project information template and the threshold value of the projects to be disclosed in the public domain at various intervals of delivery of infrastructure projects.

F3.19.4 The client must publish the information on a quarterly basis which contains the following information:

* Procurement planning process
* Procurement method and evaluation process
* Contract type
* Contract status
* Number of firms tendering
* Cost estimate
* Contract title
* Contract firm(s)
* Contract price
* Contract scope of work
* Contract start date and duration
* Contract evaluation reports

F3.19.5 The employer must establish a Consultative Forum which will conduct a random audit in the implementation of the transparency requirements in the procurement process.

F3.19.6 Consultative Forum must be an independent structure from the bid committees.

F3.19.7 The information must be published on the employer’s website.

F 3.19.8 Records of such disclosed information must be retained for audit purposes.

# **PART T2:** RETURNABLE DOCUMENTS

T 2.1 List of Returnable Documents

T 2.2 Returnable Schedule:

Schedule 1: Certificate of Inspection of Site

Schedule 2: Municipal Tender Document

Schedule 3 - 13

## T2.1 LIST OF RETURNABLE DOCUMENTS

#### LIST OF RETURNABLE DOCUMENTS

The Tenderer must complete the following Returnable Documents as part of Volume 1 and 2 of the Tender Documents that form as a whole the Returnable Documents.

1. **T 2.2: Returnable Schedule Required for Tender Evaluation Purposes**

Schedule 1: Certificate of Inspection of the Site

Schedule 2: Municipal Tender Documents

Schedule 3: Alterations by Tenderer

Schedule 4: Schedule of Equipment

Schedule 5: Day Work Schedule

Schedule 6: Proposed Sub-Contractor

Schedule 7: Tax Clearance Certificate

Schedule 8: Confirmation of CIDB Contractor Registration

Schedule 9: Addenda/Notice(s) Issued to Tenderers

Schedule 10: Declaration Concerning Fulfilment of the Construction Regulations, 2014

Schedule 11: Confirmation of Enterprise Registration and Application Form

Schedule 12: Certificate of Work Experience

Schedule 13: Pre-Qualification of Bidders

1. **Part C 1: Agreement and Contract Data**
   1. C 1.1: Form of Offer and Acceptance
   2. C 1.2: Contract Data
   3. C 1.3: Pro-Formas
2. **Part C 2: Pricing Data**
   1. C 2.1: Pricing Instruction
   2. C 2.2: Bill of Quantities
3. **Part C 3: Scope of Works**
   1. C 3.1: Description of Works
   2. C 3.2: Particular Specifications
   3. C 3.3: Construction Health and Safety Specifications

## T2.2 RETURNABLE SCHEDULE

### SCHEDULE 1: CERTIFICATE OF INSPECTION OF THE SITE

SCHEDULE 1: CERTIFICATE OF INSPECTION OF THE SITE

This is to certify that I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

representative of contractor, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

in the company of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ visited the site on

(date) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and studied the Contract Documents / carefully examined the Site.

I have familiarized myself with all local conditions likely to influence the work and the cost thereof and state that no misrepresentations have been made to me regarding the ground and other local conditions.

I further certify that I am satisfied with the description of the work and explanations given by the said Engineer and that I perfectly understand the work to be done, as specified and implied, in the execution of this contract.

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SIGNED BY ENGINEER

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SIGNED BY BIDDER

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SIGNED BY WITNESS

### SCHEDULE 2: MUNICIPAL TENDER DOCUMENTS

### SECTION 3.1: MBD 1: BID FOR THE REQUIREMENTS OF THE MUNICIPALITY OF KOUGA

### PART A: INVITATION TO BID

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE KOUGA MUNICIPALITY** | | | | | | | | | | | | | | | | |
| BID NUMBER: | **156 / 2022** | | CLOSING DATE: | | **11 NOVEMBER 2021** | | | | | | CLOSING TIME: | | | | | **12:00** |
| DESCRIPTION | **BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections** | | | | | | | | | | | | | | | |
| **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).** | | | | | | | | | | | | | | | | |
| BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT: | | | | | | | | | | | | | | | | |
| **Deposited in the tender box situated at** 21 St Croix Street (back entrance) or 16 Woltemade Street (front entrance), Jeffrey’s Bay, Room 122 | | | | | | | | | | | | | | | | |
| **SUPPLIER INFORMATION** | | | | | | | | | | | | | | | | |
| NAME OF BIDDER | |  | | | | | | | | | | | | | | |
| POSTAL ADDRESS | |  | | | | | | | | | | | | | | |
| STREET ADDRESS | |  | | | | | | | | | | | | | | |
| TELEPHONE NUMBER | | CODE | |  | | | | | NUMBER | | | |  | | | |
| CELLPHONE NUMBER | |  | | | | | | | | | | | | | | |
| FACSIMILE NUMBER | | CODE | |  | | | | | NUMBER | | | |  | | | |
| E-MAIL ADDRESS | |  | | | | | | | | | | | | | | |
| VAT REGISTRATION NUMBER | |  | | | | | | | | | | | | | | |
| TAX COMPLIANCE STATUS | | TCS PIN: | |  | | | **OR** | | | CSD No: | |  | | | | |
| B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE  [TICK APPLICABLE BOX] | | Yes    No | | | | | B-BBEE STATUS LEVEL SWORN AFFIDAVIT | | | | | Yes  No | | | | |
| ***[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]*** | | | | | | | | | | | | | | | | |
| ARE YOU THE ACCREDITED REPRESENTATIVE **IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?** | | Yes No  [IF YES ENCLOSE PROOF] | | | | | | ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?** | | | | | | | Yes No  [IF YES, ANSWER PART B:3] | |
| **TOTAL NUMBER OF ITEMS OFFERED** | |  | | | | | | **TOTAL BID PRICE** | | | | | | | **R** | |
| **SIGNATURE OF BIDDER** | | ……………………………… | | | | | | **DATE** | | | | | | |  | |
| **CAPACITY UNDER WHICH THIS BID IS SIGNED** | |  | | | | | | | | | | | | | | |
| **BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:** | | | | | | **TECHNICAL INFORMATION MAY BE DIRECTED TO:** | | | | | | | | | | |
| DEPARTMENT | | SCM | | | | CONTACT PERSON | | | | | | | | JB Snyman | | |
| CONTACT PERSON | | Theodore Madatt | | | | TELEPHONE NUMBER | | | | | | | | (044) 691 2074 | | |
| TELEPHONE NUMBER | | (042) 200 2200 | | | | FACSIMILE NUMBER | | | | | | | | (044) 691 2075 | | |
| FACSIMILE NUMBER | | n/a | | | | E-MAIL ADDRESS | | | | | | | | [jb.cvw@cvw-e.com](mailto:jb.cvw@cvw-e.com) | | |
| E-MAIL ADDRESS | | [tmadatt@kouga.gov.za](mailto:tmadatt@kouga.gov.za) | | | |  | | | | | | | | | | |

### PART B: TERMS AND CONDITIONS FOR BIDDING

|  |
| --- |
| 1. **BID SUBMISSION:** |
| * 1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.   2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED – (NOT TO BE RE-TYPED) OR ONLINE**   3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT. |
| 1. **TAX COMPLIANCE REQUIREMENTS** |
| 1. BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. 2. BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER’S PROFILE AND TAX STATUS. 3. APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE [WWW.SARS.GOV.ZA](http://www.sars.gov.za). 4. FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3. 5. BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. 6. IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. 7. WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED. |
| 1. **QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS** |
| * 1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?  YES  NO   2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?  YES  NO   3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?  YES  NO   4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?  YES  NO   5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?  YES  NO   **IF THE ANSWER IS “NO” TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.** |

**NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID**.

**NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE**.

SIGNATURE OF BIDDER: ……………………………………………

CAPACITY UNDER WHICH THIS BID IS SIGNED: ……………………………………………

DATE: …………………………………………...

### SECTION 4.1: MBD 4: DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state\*.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their positionin relation to the evaluating/adjudicating authority.
3. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**
   1. Full Name of bidder or his or her representative: ………………………………………………...

* 1. Identity Number: ……………………………………………………………………………………..
  2. Position occupied in the Company (director, trustee, shareholder2): …………………………..
  3. Company registration number: ……………………………………………………………………..
  4. Tax Reference Number: …………………………………………………………………………….
  5. VAT Registration Number: ………………………………………………………………………….
  6. The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
  7. Are you presently in the service of the state? **YES / NO**
     1. If so, furnish particulars.

………………………………………………………………………………………………………

\*MSCM Regulations: “in the service of the state” means to be –

1. a member of –
2. any municipal council;
3. any provincial legislature; or
4. the national Assembly or the national Council of provinces;
5. a member of the board of directors of any municipal entity;
6. an official of any municipality or municipal entity;
7. an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
8. a member of the accounting authority of any national or provincial public entity; or
9. an employee of Parliament or a provincial legislature.
   1. Have you been in the service of the state for the past twelve months? **YES / NO**
      1. If so, furnish particulars.

……………………………………………………………………………………………………

* 1. Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
     1. If so, furnish the following particulars.

………………………………………………………………………………………………………

* 1. Are you, aware of any relationship (family, friend, other) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
     1. If so, furnish particulars.

………………………………………………………………………………………………………

* 1. Are any of the company’s directors, managers, principal shareholders or stakeholders in service of the state? **YES / NO**
     1. If so, furnish particulars.

………………………………………………………………………………………………………

* 1. Are any spouse, child or parent of the company’s directors, managers, principal shareholders or stakeholders in service of the state? **YES / NO**
     1. If so, furnish particulars.

………………………………………………………………………………………………………

* 1. Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES / NO**
     1. If yes, furnish particulars:

……………………………………………………………………………………………………..

1. Full details of directors / trustees / members / shareholders.

| **Full Name** | **Identity Number** | **State Employee Number** | **Income Tax Number** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

...................................................................... .........................................................

Signature Date

...................................................................... .........................................................

Position Name of Bidder

### MBD 5: DECLARATION OF PROCUREMENT ABOVE R10 MILLION

**For all procurement expected to exceed R10 million (VAT included), bidders must complete the following questionnaire:**

1. Are you by law required to prepare annual financial statements for auditing? **YES / NO**

1.1 If yes, submit audited annual financial statements for the past three years or since the date of establishment during the past three years.

…………………………………………………………………………………………………………..

…………………………………………………………………………………………………………..

………………………………………………………………………………………………………….

1. Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days? **YES / NO**

2.1 If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.

………………………………………………………………………………………………………..

………………………………………………………………………………………………………..

………………………………………………………………………………………………………..

2.2 If yes, provide particulars:

……………………………………………………………………………………………………….

……………………………………………………………………………………………………….

……………………………………………………………………………………………………….

1. Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract? **YES / NO**

3.1 If yes, furnish particulars.

………………………………………………………………………………………………………..

………………………………………………………………………………………………………..

………………………………………………………………………………………………………..

1. Will any portion of goods or services to be sourced from outside the Republic and, if so, what portion and whether any portion of payment from the municipality entity is expected to be transferred out of the Republic? **YES / NO**

4.1 If yes, furnish particulars.

………………………………………………………………………………………………………..

………………………………………………………………………………………………………..

………………………………………………………………………………………………………..

**CERTIFICATION**

I, THE UNDERSTAND (FULL NAME)……………………………………………………………………….

CERTIFY THAT THE INFORMATION FURNISHED ON THE DECLARATION IS FORM TRUE AND CORRECT. I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROOF TO BE FALSE.

Signed……………………………………………… Date……………………………………………

Name……………………………………………… Position………………………………………..

Tenderer………………………………………………………………………………….………………………

### SECTION 4.2: MBD 6.1: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

**NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.**

1. **GENERAL CONDITIONS**
   1. The following preference point systems are applicable to all bids:

* the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
* the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
  1. The value of this bid is estimated to exceed or not exceed R50 000 000 (all applicable taxes included) and

therefore the 80/20 and 90/10 preference point system shall be applicable: or

* 1. Points for this bid shall be awarded for:

1. Price; and
2. B-BBEE Status Level of Contributor.
   1. The maximum points for this bid are allocated as follows:

|  |  |  |
| --- | --- | --- |
|  | **POINTS** | **POINTS** |
| **PRICE** | 80 | 90 |
| **B-BBEE STATUS LEVEL OF CONTRIBUTION** | 20 | 10 |
| **Total points for Price and B-BBEE must not exceed** | **100** | **100** |

* 1. Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
  2. The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

1. **DEFINITIONS**
2. **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
3. “**B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
4. **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
5. **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
6. **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
7. **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
8. **“prices”** includes all applicable taxes less all unconditional discounts;
9. **“proof of B-BBEE status level of contributor”** means:

B-BBEE Status level certificate issued by an authorized body or person;

A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;

Any other requirement prescribed in terms of the B-BBEE Act;

1. **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
2. **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
3. **POINTS AWARDED FOR PRICE**
   1. **THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS**

A maximum of 80 or 90 points is allocated for price on the following basis:

or



Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration

Pmin = Price of lowest acceptable bid

1. **POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR**
   1. In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

|  |  |  |
| --- | --- | --- |
| **B-BBEE Status Level of Contributor** | **Number of points**  **(90/10 system)** | **Number of points**  **(80/20 system)** |
| 1 | 10 | 20 |
| 2 | 9 | 18 |
| 3 | 6 | 14 |
| 4 | 5 | 12 |
| 5 | 4 | 8 |
| 6 | 3 | 6 |
| 7 | 2 | 4 |
| 8 | 1 | 2 |
| Non-compliant contributor | 0 | 0 |

1. **BID DECLARATION**
   1. Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:
2. **B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1** 
   1. B-BBEE Status Level of Contributor: ….. = ………(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

1. **SUB-CONTRACTING**
   1. Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

|  |  |  |  |
| --- | --- | --- | --- |
| YES |  | NO |  |

* + 1. If yes, indicate:

1. What percentage of the contract will be subcontracted............…………….…………%
2. The name of the sub-contractor…………………………………………………………..
3. The B-BBEE status level of the sub-contractor......................................……………..
4. Whether the sub-contractor is an EME or QSE

***(Tick applicable box***)

|  |  |  |  |
| --- | --- | --- | --- |
| EME |  | QSE |  |

1. Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

|  |  |  |
| --- | --- | --- |
| **Designated Group: An EME or QSE which is at last 51% owned by:** | **EME**  **√** | **QSE**  **√** |
| Black people |  |  |
| Black people who are youth |  |  |
| Black people who are women |  |  |
| Black people with disabilities |  |  |
| Black people living in rural or underdeveloped areas or townships |  |  |
| Cooperative owned by black people |  |  |
| Black people who are military veterans |  |  |
| **OR** | | |
| Any EME |  |  |
| Any QSE |  |  |

1. **DECLARATION WITH REGARD TO COMPANY/FIRM**
   1. Name of company/firm: ………………………………………………………………………….
   2. VAT registration number: …………………………………….…………………………………
   3. Company registration number: ………….……………………….…………………………….
   4. TYPE OF COMPANY/ FIRM

Partnership/Joint Venture / Consortium

One person business/sole propriety

Close corporation

Company

(Pty) Limited

[Tick applicable box]

* 1. DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

* 1. COMPANY CLASSIFICATION

Manufacturer

Supplier

Professional service provider

Other service providers, e.g. transporter, etc.

[*Tick applicable box*]

* 1. **MUNICIPAL INFORMATION**

**Municipality where business is situated:** ….……………………………………………….

**Registered Account Number:** ………………………….

**Stand Number**: …………………………………………….

* 1. Total number of years the company/firm has been in business: …………………………
  2. I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBEE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

1. The information furnished is true and correct;
2. The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
3. In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
4. If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
   1. disqualify the person from the bidding process;
   2. recover costs, losses or damages it has incurred or suffered as a result pf that person’s conduct;
   3. cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
   4. recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
   5. forward the matter for criminal prosecution.

……………………………………….

SIGNATURE(S) OF BIDDERS(S)

DATE: …………………………………..

ADDRESS: …………………………………..

…………………………………..

…………………………………..

WITNESSES

1. ……………………………………..
2. …………………………………….

### SECTION 4.3: MBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. **General Conditions**
   1. Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
   2. Regulation 8.(2) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
   3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
   4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
   5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

LC = [1 - x / y] \* 100

Where

x is the imported content in Rand

y is the bid bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

**The SABS approved technical specification number SATS 1286:2011 is accessible on http:/www.thedti.gov.za/industrial development/ip.jsp at no cost.**

1.6 A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation

1. **Definitions**
   1. **“bid”** includes written price quotations, advertised competitive bids or proposals;
   2. **“bid price”** price offered by the bidder, excluding value added tax (VAT);
   3. **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
   4. **“designated sector”** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
   5. **“duly sign”** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).
   6. **“imported content”** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labor or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
   7. **“local content”** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
   8. **“stipulated minimum threshold”** means that portion of local production and content as determined by the Department of Trade and Industry; and
   9. **“sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
2. **The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:**

Description of services, works or goods Stipulated minimum threshold

**ELECTRICAL CABLES: CABLES USED FOR POWER TRANSMISSION**

|  |  |  |
| --- | --- | --- |
| **Cable products** | **Stipulated minimum threshold** | **Yes/No** |
| Low voltage | 90% | **NO** |
| Low-cost reticulation | 90% | **NO** |
| Medium & high voltage | 90% | **NO** |
| ACR | 90% | **NO** |

**RESIDENTIAL ELECTRICITY METERS**

|  |  |  |
| --- | --- | --- |
| **Meter Category** | **Local Content Threshold** | **Yes/No** |
| Prepaid Electricity Meters | 70% | **NO** |
| Postpaid Electricity Meters | 70% | **NO** |
| SMART Meters | 50% | **NO** |

**TABLE 1: CLASSES OF TRANSFORMERS**

|  |  |  |
| --- | --- | --- |
| **Transformer Class** | **Power Rating, MVA (Range)** | **Voltage Rating, kV (Range)** |
| Class 0 | 0.001 to 1 | 220V to 22 |
| Class 1 | 1.25 to 160 | 11 to 132 |
| Class 2 | 40 to 315 | 220 to 275 |
| Class 3A | 360 to 500 | 220 to 275 |
| Class 3B | 40 to 1000 | 320 to 400 |
| Class 4 | 40 to 2000 | >420 to 800 |

**TABLE 3A: MINIMUM LOCAL CONTENT FOR CLASS 0**

|  |  |  |
| --- | --- | --- |
| **Classes of Transformers and Shunt Reactors** | **Local Content Threshold** | **Yes/No** |
| **From The Effective Date** |
| Class 0 | 90% | **NO** |

**4**. Does any portion of the services, works or goods offered

have any imported content?

(***Tick applicable box***)

|  |  |  |  |
| --- | --- | --- | --- |
| YES |  | NO |  |

4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on [**www.reservebank.co.za**](http://www.reservebank.co.za)**.**

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

|  |  |
| --- | --- |
| **Currency** | **Rates of exchange** |
| US Dollar |  |
| Pound Sterling |  |
| Euro |  |
| Yen |  |
| Other |  |

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

**5**. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the DTI must be informed accordingly in order for the DTI to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION  
(REFER TO ANNEX B OF SATS 1286:2011

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)**  **IN RESPECT OF BID NO.** .................................................................................  **ISSUED BY**: (Procurement Authority / Name of Institution):  .........................................................................................................................  NB  1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.  2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on [http://www.thdti.gov.za/industrial development/ip.jsp](http://www.thdti.gov.za/industrial%20development/ip.jsp). Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.**  Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.  I, the undersigned, …………………………………………………...................................................... (full names),  do hereby declare, in my capacity as …………………………………………………………………..  of ...............................................................................................................(name of bidder entity), the following:  (a) The facts contained herein are within my own personal knowledge.  (b) I have satisfied myself that:   1. the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and 2. the declaration templates have been audited and certified to be correct.   (c) The local content percentage (%) indicated below has been calculated using the formula given in clause  3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information  contained in Declaration D and E which has been consolidated in Declaration C:   |  |  | | --- | --- | | Bid price, excluding VAT (y) | R | | Imported content (x), as calculated in terms of SATS 1286:2011 | R | | Stipulated minimum threshold for local content (paragraph 3 above) |  | | Local content %, as calculated in terms of SATS 1286:2011 |  |   **If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.**  **The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.**  (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified  in terms of the requirements of SATS 1286:2011.  (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this  application. I also understand that the submission of incorrect data, or data that are not verifiable as  described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of  the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2017  promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).  **SIGNATURE: DATE: \_\_\_\_\_\_\_\_\_\_\_**  **WITNESS No. 1 DATE: \_\_\_\_\_\_\_\_\_\_\_**  **WITNESS No. 2 DATE: \_\_\_\_\_\_\_\_\_\_\_** |

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| **ANNEXURE C SATS 1286.2011** | | | | | | | | | | | | | | | | |
| **Local Content Declaration – Summary Schedule** | | | | | | | | | | | | | | | | |
| (C1) Tender No. | |  | | | | | | | | | |  | NOTE: VAT to be excluded from all calculations | | | |
| (C2) Tender Description | |  | | | | | | | | | |  | | | | |
| (C3) Designated product(s) | |  | | | | | | | | | |
| (C4) Tender Authority | |  | | | | | | | | | |
| (C5) Name of Tendering Entity | |  | | | | | | | | | |
| (C6) Tender Exchange Rate | | Currency | |  | | | Rate | |  | | |
| (C7) Specified local content % | |  | |  | | | | | | | | | | | | |
|  | | | Calculation of local content | | | | | | | | | | Tender summary | | | |
| Tender Item No’s | List of Items | | Tender Price  – each | | Exempted imported value | Tender value net of exempted imported content | | Imported value | | Local value | Local con- tent % (per item) | | Tender  Quantity | Total tender value | Total exempted imported content | Total imported content |
| (C8) | (C9) | | (C10) | | (C11) | (C12) | | (C13) | | (C14) | (C15) | | (C16) | (C17) | (C18) | (C19) |
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|  | | Calculation of local content | | | | | | Tender summary | | | |
| Tender Item No’s | List of Items | Tender Price  – each | Exempted imported value | Tender value net of exempted imported content | Imported value | Local value | Local con- tent % (per item) | Tender  Quantity | Total tender value | Total exempted imported content | Total imported content |
| (C8) | (C9) | (C10) | (C11) | (C12) | (C13) | (C14) | (C15) | (C16) | (C17) | (C18) | (C19) |
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|  |  | | Calculation of local content | | | | | | Tender summary | | | |
| Tender Item No’s | | List of Items | Tender Price  – each | Exempted imported value | Tender value net of exempted imported content | Imported value | Local value | Local con- tent % (per item) | Tender  Quantity | Total tender value | Total exempted imported content | Total imported content |
| (C8) | | (C9) | (C10) | (C11) | (C12) | (C13) | (C14) | (C15) | (C16) | (C17) | (C18) | (C19) |
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|  |  | | Calculation of local content | | | | | | Tender summary | | | |
| Tender Item No’s | | List of Items | Tender Price  – each | Exempted imported value | Tender value net of exempted imported content | Imported value | Local value | Local con- tent % (per item) | Tender  Quantity | Total tender value | Total exempted imported content | Total imported content |
| (C8) | | (C9) | (C10) | (C11) | (C12) | (C13) | (C14) | (C15) | (C16) | (C17) | (C18) | (C19) |
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|  | | | | | Calculation of local content | | | | | | | | | | | | Tender summary | | | | |
| Tender Item No’s | List of Items | | | | Tender Price  – each | | Exempted imported value | | Tender value net of exempted imported content | | Imported value | | Local value | | Local con- tent % (per item) | | Tender  Quantity | Total tender value | | Total exempted imported content | Total imported content |
| (C8) | (C9) | | | | (C10) | | (C11) | | (C12) | | (C13) | | (C14) | | (C15) | | (C16) | (C17) | | (C18) | (C19) |
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| (C20) Total tender value | | | | | | | | | | | | | | | | | |  | |  | |
| (C21) Total Exempt imported content  (C22) Total Tender value net of exempt imported content | | | | | | | | | | | | | | | | | | | |  |  |
|  |  |
| SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION | | | | | | | |  | |  | |  | |  | |  | | | (C23) Total Imported content | |  |
|  | |  |  |  | |  | |  | |  | |  | |  | |  | | | (C24) Total local content | |  |
| DATE | | |  |  | |  | |  | |  | |  | |  | | (C25) Average local content % of tender | | | | |  |

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| ANNEXURE D | SATS 1286.2011 |
| IMPORTED CONTENT DECLARATION – SUPPORTING SCHEDULE TO ANNEXURE C | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (D1) | Tender No. |  | | | |  | NOTE: VAT to be excluded from all calculations | |
| (D2) | Tender Description |  | | | |  | |  |
| (D3) | Designated Product(s) |  | | | |  | |  |
| (D4) | Tender Authority |  | | | |  | |  |
| (D5) | Tendering Entity’s Name |  | | | |  | |  |
| (D6) | Tender Exchange Rate | Currency |  | Rate |  |  | |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A. Exempted imported content | | | | Calculation of imported content | | | | | | | |  | Summary | |
| Tender item no’s | Description of imported content | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | | Total landed cost | |  | Tender Quantity | Exempted imported value |
| (D7) | (D8) | (D9) | (D10) | (D11) | (D12) | (D13) | (D14) | (D15) | | (D16) | |  | (D17) | (D18) |
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|  |  |  |  |  |  |  |  | (D19) Total exempted imported value | | | | | |  |
|  |  |  |  |  |  |  |  |  |  | |  | | This total must correspond with Annex C – C21 | |

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| B. Imported directly by the Tenderer | | | | Calculation of imported content | | | | | |  | Summary | |
| Tender item no’s | Description of imported content | Unit of measure | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost |  | Tender Quantity | Total imported value |
| (D20) | (D21) | (D22) | (D23) | (D24) | (D25) | (D26) | (D27) | (D28) | (D29) |  | (D30) | (D31) |
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|  |  |  |  |  |  |  |  | (D32) Total imported value by Tenderer | | | |  |
| ANNEXURE D - Continued | | | | | | | | | | | SATS 1286.2011 | |
| IMPORTED CONTENT DECLARATION – SUPPORTING SCHEDULE TO ANNEXURE C | | | | | | | | | | | | |

|  |  |
| --- | --- |
|  | NOTE: VAT to be excluded from all calculations |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| C. Imported by a 3rd party and supplied to the Tenderer | | | | | | Calculation of imported content | | | | | | | | | | |  | Summary | |
| Description of imported content | Unit of measure | | Local supplier | | Overseas supplier | Foreign currency value as per Commercial Invoice | | Tender exchange Rate | Local value of imports | | Freight costs to port of entry | | All locally incurred landing costs & duties | | Total landed cost | |  | Quantity imported | Total imported value |
| (D33) | (D34) | | (D35) | | (D36) | (D37) | | (D38) | (D39) | | (D40) | | (D41) | | (D42) | |  | (D43) | (D44) |
|  |  | |  | |  |  | |  |  | |  | |  | |  | |  |  |  |
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|  |  | |  | |  |  | |  |  | |  | | (D45) Total imported value by 3rd party | | | | | |  |
| D. Other foreign currency payments | | | | | | Calculation of foreign currency payments | | |  |  | |  | |  | |  | | |  |
| Type of Payment | | Local supplier making the payment | | Overseas beneficiary | | Foreign currency value paid | Tender rate of exchange | |  |  | |  | |  | | Summary of payment | | | |
|  |  | |  | |  | | Local value of payment | | | |
| (D46) | | (D47) | | (D48) | | (D49) | (D50) | |  |  | |  | |  | |
|  | |  | |  | |  |  | |  |  | |  | |  | | (D51) | | | |
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|  | |  | |  | |  |  | |  |  | |  | |  | |  | | | |
|  | |  | |  | |  | (D52) Total of foreign currency payments declared by Tenderer and/or 3rd party | | | | | | | | |  | | | |
|  | |  | |  | | (D53) Total 0 imported content and foreign currency payments – (D32), (D45) and (D52) above | | | | | | | | | |  | | | |
|  | | | | | | | | |  |  | |  | | This total must correspond with Annex C – (C23) | | | | | |
|  |  | |  | |  | |  | | |  |
| SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION | | | | | | | | |  |  | |  | |  | |  | | |  |
|  | | | | | | | | |  |  | |  | |  | |  | | |  |
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| DATE | | | | | | | | |  |  | |  | |  | |  | | |  |

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| --- | --- | --- |
| ANNEXURE E | | SATS 1286.2011 |
| LOCAL CONTENT DECLARATION – SUMMARY SCHEDULE | | |
| (E1) TENDER NO. |  | NOTE: VAT TO BE EXCLUDED FROM ALL CALCULATIONS |
| (E2) TENDER DESCRIPTION |  | |
| (E3) DESIGNATED PRODUCT(S) |  | |
| (E4) TENDER AUTHORITY |  | |
| (E5) TENDERING ENTITY’S NAME |  | |
| LOCAL PRODUCTS (GOODS, SERVICES AND WORKS) | | |
| DESCRIPTION OF ITEMS PURCHASED | LOCAL SUPPLIERS | VALUE |
| (E6) | (E7) | (E8) |
|  |  |  |
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|  |  |  |
| (E9) TOTAL LOCAL PRODUCTS (GOODS, SERVICES AND WORKS) | |  |
| (E10) MANPOWER COSTS (TENDERER’S OWN MANPOWER COST) | |  |
| (E11) FACTORY OVERHEADS (RENTAL, DEPRECIATION & AMORTIZATION, UTILITY COSTS, CONSUMABLES, ETC.) | |  |
| (E12) ADMINISTRATION OVERHEADS & MARK-UP (MARKETING, INSURANCE, FINANCING INTEREST, ETC.) | |  |
| (E13) TOTAL LOCAL CONTENT | |  |
|  | THIS TOTAL MUST CORRESPOND WITH ANNEX C – C24 | |
|  |  |  |
|  | |  |
|  | |  |
| SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION | |  |
|  |  |  |
|  |  |  |
| DATE |  |  |

**SECTION 4.3: MUNICIPAL RATES AND SERVICES**

|  |  |  |  |
| --- | --- | --- | --- |
| Names of Directors/Partners/Senior Managers | Physical residential address of the Director/Partner/Senior Manager | Residential Municipal Account number(s) | Name of Municipality |
|  |  |  |  |
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**NB: Please attach copy/copies of Municipal Account(s)**

**DECLARATION**

**I, THE UNDERSIGNED (NAME) ...............................................................................................**

**CERTIFY THAT THE INFORMATION FURNISHED ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.**

............................................... .........................................................

Signature Date

................................................. .........................................................

Position Name of Bidder

**SECTION 4.4: AUTHORITY FOR SIGNATORY**

We, the undersigned, hereby authorize Mr / Mrs ………………………………………… acting in his/her capacity

as ………………..……………………. of the business trading as ……..……………………… to sign all

documentation in connection with Tender ………………………………….

|  |  |  |
| --- | --- | --- |
| **NAME OF MEMBERS / DIRECTORS** | **SIGNATURE** | **DATE** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
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Note: If bidders attached a copy of their Authorised Signatory is it not necessary to complete this form.

**THE RESOLUTION TAKEN BY THE BOARD OF DIRECTORS OF A CONSORTIUM OR JOINT VENTURE**

**RESOLUTION** of a meeting of the Board of Directors / Members / Partners of

NAME OF TENDERER (Must agree with bidder details)

Held at ­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Place) (Date)

**RESOLVED THAT**:

1. The enterprise submits a Tender to Kouga Municipality in respect of the following:

**TENDER NOTICE NO: 156 / 2022: BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections.**

(list all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium / Joint Venture).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

1. Mr./Mrs./Ms. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In his/her capacity as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and who will sign as follows: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(SPECIMEN SIGNATURE)

be, and is hereby, authorized to sign the Tender and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any contract, and or all documentation resulting from the award of the Tender to the **Consortium/ Joint Venture** enterprise mentioned above.

1. The enterprise in the form of a consortium or joint venture accept jointly and several liability with parties under item 1 above for the fulfilment of the obligations of the joint venture deriving from, and in any way connected with the contract to be entered with the Kouga Municipality in respect of the project described above under item 1.
2. The **Consortium / Joint Venture** enterprise chooses as its domicilium citandi et executandi for all purposes arising from the joint venture agreement and contract with the Kouga Municipality in respect of the project under item 1:

(Physical Address) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Note: The resolution **must be signed by all directors or members / partners** of the bidding enterprise. Should the space provided below not be enough for all the directors to sign, please provide a separate sheet in the same format below:

NB: **COMPULSARY TO BE COMPLETED** IN CASE OF CONSORTIUM OR JOINT VENTURE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NAME** | | **ID NUMBER** | | **DIRECTORS/OWNERS PERSONAL TAX NO** | **SIGNATURE** |
| 1 |  |  | |  |  |
| 2 |  |  | |  |  |
| 3 |  |  | |  |  |
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| 12 |  |  | |  |  |
| 13 |  |  | |  |  |
| 14 |  |  | |  |  |
| 15 |  |  | |  |  |
| **Name of Joint Venture** | | |  | | |
| **Names of Each Enterprise**: | | | | | |
| 1. Name and Address of   Enterprise: | | |  | | |
| 1. Name and Address of   Enterprise: | | |  | | |
| 1. Name and Address of Enterprise: | | |  | | |
| Has an original valid Tax Clearance Certificate been submitted for each enterprise: | | | Yes  No | | |
| CIDB Registration Number(s), if any: | | |  | | |

**Submit your Joint Venture Agreement together with this tender document. If no Joint Venture Agreement is submitted, the tender will be seen as non-responsive.**

**SIGNED ON BEHALF OF JOINT VENTURE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

### SECTION 4.5: MBD 8: DECLARATION OF BIDDER’S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Municipal Bidding Document must form part of all bids invited.
2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The bid of any bidder may be rejected if that bidder, or any of its directors have:
   1. abused the municipality’s / municipal entity’s supply chain management system or committed any improper conduct in relation to such system;
   2. been convicted for fraud or corruption during the past five years;
   3. wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
   4. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Question | Yes | No |
| 4.1 | Is the bidder or any of its directors listed on the National Treasury’s database as a company or person prohibited from doing business with the public sector?  **(Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).**  **The Database of Restricted Suppliers now resides on the National Treasury’s website(**[www.treasury.gov.za](http://www.treasury.gov.za)**) and can be accessed by clicking on its link at the bottom of the home page.** | Yes | No |
| 4.1.1 | If so, furnish particulars: | | |
| 4.2 | Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?  **The Register Tender Defaulters can be accessed on the National Treasury’s website (**www.treasury.gov.za**) by clicking on its link at the bottom of the home page.** | Yes | No |

|  |  |  |  |
| --- | --- | --- | --- |
| 4.2.1 | If so, furnish particulars: | | |
| 4.3 | Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years? | Yes | No |
| 4.3.1 | If so, furnish particulars: | | |
| 4.4 | Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months? | Yes | No |
| 4.4.1 | If so, furnish particulars: | | |
| 4.5 | Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract? | Yes | No |
| 4.7.1 | If so, furnish particulars: | | |

**CERTIFICATION**

**I, THE UNDERSIGNED (FULL NAME)…………………………………..……CERTIFY THAT THE**

**INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.**

**I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.**

……………………………………….... …………………………..........

Signature Date

………………………………………... ………………………….........

Position Name of Bidder

### SECTION 4.6: MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:

a. take all reasonable steps to prevent such abuse;

b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and

c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

1. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD9) must be completed and submitted with the bid:

**¹ Includes price quotations, advertised competitive bids, limited bids and proposals.**

**² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.**

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;

2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;

3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;

5. For the purposes of this Certificate and the accompanying bid, I understand that the word “competitor” shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

(a) has been requested to submit a bid in response to this bid invitation;

(b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and

(c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

(a) prices;

(b) geographical area where product or service will be rendered (market allocation)

(c) methods, factors or formulas used to calculate prices;

(d) the intention or decision to submit or not to submit, a bid;

(e) the submission of a bid which does not meet the specifications and conditions of the bid; or

(f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

………………………………………… …………………………………………

Signature Date

……………………………………….. ……………………………………..…

Position Name of Bidder

**³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.**

SECTION 5: DECLARATION

1. I hereby declare that I have read, understood, agree and comply with all of the sections below, if included, that it shall be deemed to form and be construed as part of this agreement:
2. Bidding documents, *viz*

* Invitation to bid;
* Tax clearance certificate;
* Pricing schedule(s);
* Technical Specification(s);
* Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations, 2017;
* Declaration of interest;
* Declaration of bidder’s past SCM practices;
* Certificate of Independent Bid Determination
* Special Conditions of Contract;

1. General Conditions of Contract; and
2. Other (specify)
3. I confirm that I am duly authorised to sign this document.

NAME (PRINT) ………………………………………….

WITNESSES

1. …….……………

1. ……………………

DATE: …………………….

CAPACITY ………………………………………….

SIGNATURE ………………………………………….

NAME OF FIRM ………………………………………….

DATE ………………………………………….

### SCHEDULE 3 - 13

### SCHEDULE 3: ALTERATIONS BY BIDDER

Should the bidder desire to make any departures from or modifications to the General Conditions of Contract, Specifications, Schedule of Quantities or Drawings or to qualify his bid in any way, he shall set out his proposals clearly hereunder or alternatively state them in a covering letter attached to his bid and referred to hereunder, failing which the bid will be deemed to be unqualified.

Should the bidder not desire to make any departures or modifications, he must state **“NONE”** in the schedule hereunder and sign it.

|  |  |
| --- | --- |
| PAGE | CLAUSE OR ITEM |
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SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 4: SCHEDULE OF EQUIPMENT

Schedule 13 also request a schedule of Plant / Tools / Equipment under criterion no. 3, both schedule 4 and 13 needs to be completed in full.

If my/our bid is successful, I/we of

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

undertake/s to place the following equipment on the site for the execution of the works:

|  |  |
| --- | --- |
| NAME AND DESCRIPTION | NUMBER |
|  |  |
|  |  |
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In accordance with Clause 30 of the General Conditions of Contract, I/we undertake not to remove any plant and/or equipment from the construction site without the written consent of the Engineer, which consent shall not be unreasonably withheld.

SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 5: DAYWORK SCHEDULE

This day-work schedule shall be completed by the Contractor as fully detailed as possible since it I to be used to put a valuation upon additional or substituted work which by their nature cannot conveniently be valued at the rates tendered by the Contractor and where the Contractor has been instructed to carry out such work on a day-work basis.

The Contractor is required to fill in the schedule listed below with prices for labor, plant and materials for the work that shall be executed in terms of Clause 37.2 of the General Conditions of Contract, forming part of the Contract Documents.

|  |  |  |  |
| --- | --- | --- | --- |
| ITEM | DESCRIPTION | UNIT | RATE |
| 1. | LABOUR |  |  |
|  | In the rates tendered, the Contractor shall allow for the use of all small tools, e.g. picks, shovels, hammers, etc. |  |  |
| (a) | Unskilled laborers | Hour | ……………… |
| (b) | Skilled tradesmen | Hour | ……………… |
| (c) | Gangers | Hour | ……………… |
| (d) | Plant Operators | Hour | ……………… |
|  |  |  |  |
| 2. | MATERIALS |  |  |
|  | For the supply and use including delivery charges on the site where the materials is built into the permanent works |  | Cost plus ………. % |
|  |  |  |  |
| 3. | PLANT |  |  |
|  | Under the heading, the Contractor is required to list the operating and standing charges for all the plant he proposes to use in terms of this Contract on day work and shall insert the rates for the use of such plant in terms of this Contract on a plant hire basis, priced per hour inclusive of all fuel, equipment, etc., but excluding the plant operator’s cost which will be taken as listed above in Item 1. |  |  |
|  |  | Hour | ……………… |
|  |  | Hour | ……………… |
|  |  | Hour | ……………… |
|  |  | Hour | ……………… |
|  |  |  |  |
| 4. | GENERAL |  |  |
|  | Under this item, the Contractor may list such other items of plant, labor, materials, etc. which have not been provided for in the items hereinbefore and which the Contractor considers he may require to properly execute work on a day work basis. |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 5. | SUPERVISION AND OVERHEADS |  |  |
|  | Under this item, the Contractor must allow for all charges inclusive to allow for proper supervision and all overheads, in connection with day work. His allowance shall be calculated on the percentage basis which must be indicated by the Contractor in the Schedule. The Contractor is to note that for the purpose of calculating the percentage, the value of materials as listed under Item 2 shall not be included in the total hereunder for establishing such percentage as aforesaid. |  |  |
|  |  |  |  |
|  | Supervision and overheads |  | ………. % |
|  |  |  |  |

SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 6: PROPOSED SUB-CONTRACTORS

In order to complete the Works under this Contract, I/we propose to employ the following Sub-contractors to carry out the portion/type of work as detailed.

(Note: All proposed Sub-contractors must be listed).

|  |  |  |
| --- | --- | --- |
| SUB-CONTRACTOR: NAME, ADDRESS AND TELEPHONE NO. | PORTION / TYPE OF WORK TO BE UNDERTAKEN | ESTIMATED VALUE OF WORK |
|  |  |  |

SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 7: TAX CLEARANCE CERTIFICATE

The Bidder must attach to this page an original Tax Compliance Status Pin Clearance Certificate from the South African Revenue Services in respect of his/her company, close corporation or partnership. In the case of a Joint Venture between two or more firms, the Bidder shall attach an original /copy of the Tax Clearance Certificate for each of the Joint Venture partners.

1. A valid original Income Tax Clearance Certificate must accompany the bid documents unless the Bidder is registered on the Accredited Supplier Database of the Municipality and they have a valid original Income Tax Clearance Certificate for the Bidder on record. The onus is on the Bidder to ensure that the Municipality has an original Income Tax Clearance Certificate on record. If the South African Revenue Services (SARS) cannot provide a valid original Tax Clearance Certificate, the Bidder must submit a letter from SARS on an original SARS letterhead that their tax matters are in order.
2. In the case of a Consortium / Joint Venture every member must submit a separate Tax Clearance Certificate with the bid documents unless the member is registered on the Accredited Supplier Database used by the Municipality and they have a valid original Tax Clearance Certificate for the member on record.
3. If a bid is not supported by a valid original Tax Clearance Certificate, either as an attachment to the bid documents or on record in the case of suppliers registered on the Accredited Supplier Database of the Municipality, the Municipality reserves the right to obtain such documents after the closing date to verify that the bidder’s tax matters are in order. If no such document can be obtained within a period as specified by the Municipality, the bid will be disqualified.

### SCHEDULE 8: CONFIRMATION OF CIDB CONTRACTOR REGISTRATION

I/We understand that only Bidders who are registered with the Construction Industry Board (CIDB) in a contractor grading designation equal to or higher than a Contractor grading designation determined in accordance with the sum tender for a 4EP class of construction work, are eligible to submit bids.

I/We understand that Joint Venture are eligible to submit tenders provided that:

1. Every member of the Joint Venture is registered with the CIDB at the closing date for bids
2. Lead partner has a 4EP Contractor grading
3. The combined contractor grading designation calculated in accordance with the Construction Industry Development Board (CIDB) Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 4EP class of construction work.
4. The contractor participation of each member in a Joint Venture is in accordance with the individual member’s CIDB contractor grading designation.

I/We understand that the Employer may only enter a formal contract with a Bidder who is registered with the Construction Industry Development Board (CIDB) as a CIDB Designation 4EP (Electrical Engineering Works – Infrastructure) Contractor and has been issued with such a CIDB Contractor registration grading designation.

**Contractor Industry Development Board (CIDB) Contractor Registration**

I/We wish to confirm the following:

*(Tick the relevant box)*

YES NO

I/We am/are registered with the CIBD as a 4EP (Electrical Engineering Works – Infrastructure) Contractors:

Registration No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I/We understand that:

Bidders must be registered prior to the closing date/time for tender submissions in a CIDB Contractor grading designation equal to or higher than Contractor grading designation determined in accordance with the sum tendered for a 4EP class of construction work.

**NB: DOCUMENTARY EVIDENCE/PROOF OF CIDB CONTRACTOR REGISTRATION TO BE APPENDED TO THIS SCHEDULE.**

SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 9: ADDENDA / NOTICE(S) ISSUED TO TENDERERS

We confirm that the following communications / addenda / notice(s) to Bidders received from the Employer before the submission of this Bid offer, amending the Bid documents, have been taken into account in this Bid offer:

|  |  |  |
| --- | --- | --- |
| ADDENDUM NO. | DATE | SUBJECT MATTER OF ADDENDUM / NOTICE |
|  |  |  |
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**Documentary evidence of Addenda / Notices issued to Tenderers indicating proof of receipt shall accompany this Schedule.**

Number of sheets appended by the Bidder to this Schedule \_\_\_\_\_\_\_\_\_\_ (If nil, enter NIL)

SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 10: DECLARATION CONSTRUCTION REGULATIONS, 2014

In terms of regulation 4 (3) of the Construction Regulations, 2014 (hereinafter referred to as the Regulations), promulgated on 7 February 2014 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) the Employer shall not appoint a Contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

Tenderers shall answer the questions below:

1. I confirm that I am fully conversant with the Regulations and that my Company has (or will acquire/procure) the necessary competencies and resources to timeously, safely and successfully comply with all of the requirements of the Regulations. *(Tick✓)*

YES NO

1. Indicate which approach shall be employed to achieve compliance with the Regulations. *(Tick✓)*

|  |  |
| --- | --- |
| Own resources, competent in terms of the Regulations (refer to 3 below) |  |
| Own resources, still to be hired and/or trained (until competency is achieved) |  |
| Specialist subcontract resources (competent) – Specify: |  |
|  |
|  |
|  |
|  |
|  |

1. Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CV’s to be attached):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Provide details of proposed training (if any) that will be undergone:

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1. List potential key risks identified and measures for addressing risks:

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1. I have fully included in my tendered rates and prices (in the appropriate payment items provided in the Schedule of Quantities) for all resources, actions, training and any other costs required for the due fulfilment of the Regulations for the duration of the construction and defects repair period. *(Tick✓)*

YES NO

**SIGNATURE OF PERSON(S) AUTHORISED TO SIGN THIS BID:**

**SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(Name in print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ID NO.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(Name in print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ID NO.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

### SCHEDULE 11: CONFIRMATION OF ENTERPRISE REGISTRATION

I/We understand that in terms of the Employer’s Procurement Policy, Bidders are required to be registered and verified on the Client’s Database and failure to do so will result in non-allocation of adjudication preferences.

I/We hereby confirm the following:

I/WE ARE REGISTERED AND VERIFIED WITH THE CLEINT’S SUPPLIER DATABASE

|  |  |  |
| --- | --- | --- |
| COMPANY NAME | REGISTERED YES/NO (if NO, will however registered before contract is awarded) | REGISTRATION NUMBER IF APPLICABLE |
|  |  |  |

Bidders who are not registered and verified on the Western Cape Supplier Database are not precluded from submitting tenders and quotations but must be registered and verified before the closing date in order to qualify for preference points. Contracts will not be concluded with Bidders who are not registered and verified on the Client’s Supplier Database.

In this regard it is the sole responsibility of Tenderers to ensure that this requirement is complied with prior to the closing date of the tender. In the case of Joint Venture Partnerships this requirement will apply to each party of the Joint Venture.

**Registration as Service Provider**

I/We wish to confirm the following: (*Tick ✓ the relevant box*)

**YES** I/We are registered as a Service Provider

**I/We append written documentary evidence / proof of registration / verification to this Schedule**

**NO** I/We are **NOT** registered but have made application for registration.

Date of application: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**NB: Documentary evidence / proof of registration and verification on the Client’s Supplier Database to be appended to this Schedule.**

SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 12: CERTIFICATE OF WORK EXPERIENCE

Schedule 13 also request relevant references under criterion no. 2, both schedule 12 and 13 needs to be complete in full.

I/We, of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Certify hereby that the following list represents contracts successfully completed by me/us in the recent past and that it is of a similar nature as the work described in this document.

|  |  |  |  |
| --- | --- | --- | --- |
| NATURE OF WORK | VALUE | DATE OF COMPLETION | EMPLOYER AND CONTACT PERSON WITH TEL. NO. |
|  |  |  |  |
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SIGNED ON BEHALF OF THE BIDDER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### SCHEDULE 13: TENDER FUNCTIONALITY / PRE-QUALIFICATION

1. Tenders will be evaluated on the functionality criteria as set out below. Bidders that score less than **75% of 100 points** for these criteria will be regarded as non-responsive and will not be evaluated on price and B-BBEE. Unclear, vague, fragmented or incomplete information provided will result in no points being allocated.
2. Bidders must ensure that relevant information is submitted. If information is not submitted or referred to as an attachment, no points will be awarded.
3. The following criteria will be used to calculate points for the functionality of tenders and bidders should ensure that they submit all information in order to be pre-evaluated on the criteria mentioned below:

|  | **CRITERIA** | **MAXIMUM POINTS** | **BIDDER SCORE** |
| --- | --- | --- | --- |
| 1 | Company (or JV) Experience | **25** |  |
| 2 | References Related to that Experience( Provide reference letters of similar projects completed) | **25** |  |
| 3 | Key Site Staff & Personnel allocated/reserved for this Tender  Specify staff required, Site Manager, Site supervisor, Artisan, years’ experience, or number of projects completed, HVREGS and qualified) | **25** |  |
| 4 | Within Kouga Municipality  Eastern Cape  Outside the Eastern Cape | **25**  **15**  **10** |  |
| **TOTAL** | | **100** |  |

Functionality criteria are further divided as follows and points will be awarded as indicated below:

### CRITERION 1: COMPANY (or JV) EXPERIENCE

1. A maximum of **25** points will be awarded at the sole discretion of the Municipality’s Bid Evaluation Committee based on the information provided. Please note that this section refers to the Company’s and its legacy firms past experience and is not a duplication of Criterion 2’s Key staff and Personnel. Meaning this section takes into consideration that the company as an entity has gained relevant experience in the past and showcase that the company is in the business of said Scope of Works.
2. Relevant experience is defined as the accumulation of knowledge or skill that results from direct participation in relevant/similar events or activities and/or as determined by the Kouga Municipality and/or professional consulting engineer where applicable.

|  |  |  |
| --- | --- | --- |
| **Experience required:**  Successfully completed electrification projects including **22-11 kV distribution lines making use of wooden pole structures and electrification connections** | **Maximum points** | **Bidder Score** |
| A minimum 1 year but up to 3 year’s total relevant experience | **15** |  |
| More than 3 years total relevant experience | **20** |  |
| More than 5 years total relevant experience of the company | **25** |  |
| **Total** | |  |

1. In order to claim points for the above, bidders must submit sufficient information as well as documentary proof of experience relating **to >** electrification projects including 22-11 kV distribution lines making use of wooden pole structures and electrification connections, by means of completion certificates and appointment letters.

(d) **Points will only be awarded for** **relevant & completed experience** obtained relevant to the Tender Scope of Works. To be able to gain points the Tenderer must submit proof that the company has obtained the relevant experience for this Tender’s Scope of Works & Specifications, and not only parts thereof. If experience is listed, please ensure it is applicable and relevant to the whole of this Tender and not only to parts thereof, otherwise the Bidder will not be awarded the necessary points. **Tenderers to provide enough experience to score the total points as prescribed e.g. in order to claim 25 points, relevant projects should be listed for project experience that was done in the last five (5) years or longer.**

NB: If no information is provided below OR referred to as an additional attachment **NO POINTS WILL BE AWARDED.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Employer/Client**  **(Name, Email, Tel No)** | **Nature of work/Scope of work (A full breakdown of the scope to be submitted)** | **Value of Work (incl. VAT)** | **Start and completion date**  **(month and year)**  **Duration** |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |
|  |  |  | Start  Completion  Duration |

### CRITERION 2: REFERENCES RELATED TO EXPERIENCE

Please note that this section refers to the Company’s and its legacy firms’ references related to the experience. It also takes into account that the references are related & relevant to electrification projects including 22-11 kV distribution lines making use of wooden pole structures and electrification connections).

Bidders should provide copies of three (3) reference letters, on an official letterhead of the reference, in relation to the experience gained on projects relevant to the scope of work.

The following detail should be included in the reference letter:

* Detail of the work that have been successfully completed electrification projects including 22-11 kV distribution lines making use of wooden pole structures and electrification connections).
* Was the work completed within the contractual time frame?
* Was the work completed within the Contract Price / Amount /Budget / Project programme/schedule? Meaning did the contractor keep to his budget and Scope of Works and not overspend without provisional approval and keep to the programme/schedule?
* Compliance with the Occupational Health & Safety regulations on the project.
* General performance on the project.

The letter should also include who the contact person is with all his/her detail OR Bidders can provide their references with the attached questionnaire (see attachment A), which have to be completed and signed by the references.

The Municipality/Consultant reserves the right to validate and verify the information from the references or to ask more questions or proof to satisfy the evaluation process.

Please note that points will not overlap, meaning points are awarded only once per reference/company/entity *per project experience*. Please refrain from submitting multiple references from the same company on the same project. Please note it is the duty of the Bidder to ensure that the references given are relevant to the Scope of Works.

* Reference Scoring: A maximum of **25** points will be awarded at the sole discretion of the Municipality’s Bid Evaluation Committee based on the information provided and will be split as follows.
* In order to claim points, bidders must submit, with the tender document, three reference letters or questionnaires to which the abovementioned Experience have been provided.
* These references letters or questionnaires must be current/most recent, relevant and related to the Experience submitted. **The letters must not be older than five (5) years.**
* It is the bidders’ responsibility to ensure that the details provided are correct, before submitting his tender, and that the references will be available and be able to provide additional feedback, if necessary.
* If the references are unable to validate, verify or provide additional information on the projects, no points will be awarded for that particular reference.
* 5 points will be awarded for each reference letter or questionnaire which is positive and relevant to the Scope of Works of this contract, subject to the final discretion of the Bid Evaluation Committee.

NB: If no reference letters or questionnaires are attached **NO POINTS WILL BE AWARDED. COMPLETION CERTIFICATES AND/OR APPOINTMENT LETTERS WILL NOT BE ACCEPTED FOR THIS CRITERIA.**

**ATTACHMENT A**

|  |  |
| --- | --- |
| **Question to Reference** | **Reference’s Response** |
| 1. Detail of the work that have been successfully completed  (**Projects relating to >** electrification projects including 22-11 kV distribution lines making use of wooden pole structures and electrification connections **)**. | ……………………………………………………  ……………………………………………………  …………………………………………………… |
| 2. Was the work completed within the contractual time frame? | Yes …………………….  No……………………….  If NO, please state why:  …………………………………………………… |
| 3. Was the work completed within the contract amount? | Yes …………………….  No……………………….  If NO, please state why:  …………………………………………………… |
| 4. Did the contractor comply with the Occupational Health & Safety regulations on site? | Yes …………………….  No……………………….  If NO, please state why:  …………………………………………………… |
| 5.In general were you satisfied with their performance - thus would you recommend them for this Tender considering all of above? | Yes …………………….  No……………………….  If NO, please state why:  …………………………………………………… |

**………………………………………………………………. ……………………………………………**

**NAME OF REFERENCE SIGNATURE**

**………………………………………………………………. ……………………………………………**

**CONTACT PERSON & TELEPHONE NUMBER DATE**

**…………………………………………………………………….**

**EMAIL ADDRESS**

|  |
| --- |
| **STAMP OF REFERENCE** |

### CRITERION 3: SITE STAFF & PERSONNEL ALLOCATED / RESERVED FOR THIS TENDER

1. A maximum of **25** points will be awarded at the sole discretion of the Municipality’s Bid Evaluation Committee based on the information provided and will be split as follows. Points will only be award once for each staff/personnel allocated to this Tender, no multiple scoring per person.

**NB: Please provide name of staff member in the space provided below. If no name is provided NO POINTS WILL BE AWARDED.**

| **Site Staff & Personnel Required:** | **Max points** | **Name of Staff member** | **Bidder Score** |
| --- | --- | --- | --- |
| **Contract Manager / Site Agent**  **(min 16 hours / 2 days per week)**   * Must be suitably skilled and have CV verifiable experience managing electrical reticulation projects. Is overall responsible for the execution of the works and all associated project management * Must manage all Municipal instructions and ensure execution of Tender specifications. Must inspect and approve all works. manage Payment Certificates * Must be computer literate, compile admin reports, proficient in the use of Excel Spread Sheets, capture data and quantities, daily communication electronically via email etc. | 0-5y = 2 points  5-10y = 6 points  More than 10y =10 points |  |  |
| **General Foreman: Construction Manager & Supervisor (min 40 hours / 5 days per week / full time on site)**   * Must be suitably skilled and have CV verifiable experience as foreman on electrical projects. * Must supervise the works full-time on site, the team / the workers and the correct use of all plant / machinery. * Must be able to work with local labour. * Must ensure the all Codes & Standards specifications are met and carried out. | 0-5y = 2 points  5-10y = 6 points  More than 10y =10 points |  |  |
| **Skilled Artisan specialist**  **(min 40 hours / 5 days per week / full time on site)**   * Must be suitably skilled and have CV verifiable experience working with electrical projects. | 0-5y = 1 points  5-10y = 3 points  More than 10y =5 points |  |  |
| **TOTAL** | **25** |  |  |

1. In order to claim points for the above bidders must submit detailed Curriculum Vitae (CV) of each key personnel to be used/allocated for this Tender. **The staff or personnel listed above must currently be employed by the Bidder company, if not then a letter stating such intent to employ this person, including this person’s signature of willingness & acceptance for the intended duration of the project.** CV experience listed of key staff must be relevant and current. Points can only be allocated once, meaning one-person-one-score, no multiple scoring. Please note the staff allocated to this Tender must be on-site and used for this Tender. If the person is unavailable during time of execution he/she must be replaced with someone of equal of better value and experience and proof as per CV submitted.

NB: Relevant experience is defined as the accumulation of knowledge or skill that results from direct participation in relevant similar events or activities and/or as determined by the Kouga Municipality and/or professional consulting engineer where applicable.

### CRITERION 4: LOCALITY

A maximum of **25** points will be awarded on the information provided.

| **Locality** | **Maximum Points** | **Bidder Score** |
| --- | --- | --- |
| 1. Kouga Local Municipality Area | 25 |  |
| 1. Sarah Baartman District | 20 |  |
| 1. Eastern Cape | 15 |  |
| 1. Outside the Eastern Cape | 10 |  |
|  | **TOTAL** |  |

The address of the local office must be indicated on the Schedule below. This will be regarded as the domicilium citandi et executandi for the purpose of any contract arising from this tender submission.

The Municipality reserves the right to inspect the offices of bidders and the office should have been established before the tender closes. Offices should remain in operation for the duration of the tender period otherwise the contract will be terminated with immediate effect.

|  |  |
| --- | --- |
| Physical Address of Office |  |
| Postal Address of Office |  |
| Telephone Number |  |
| Fax Number |  |
| Email |  |
| Contact Person |  |

**JOINT VENTURES**

The evaluation of functionality regarding a Consortium or Joint venture, will be performed as follows:

For company experience the evaluation is based on the experience of the partner with the highest/longest experience record;

For the evaluation of the project team, if applicable, at least one of the Project leaders must be an employee with the leading partner of the consortium or joint venture. The leading partner of the consortium or joint venture is determined by the shareholding regarding the liability, which is included in the consortium or joint venture agreement.

If required for the evaluation of the financial ratings, if not issued for the consortium or joint venture specifically, the rating of the leading partner will be use in the assessment.

The designated Project leaders, if applicable, may not be changed without the prior approval of the accounting officer or his/her nominated person once the bid was awarded.

# **THE CONTRACT**

# **PART C1:** AGREEMENT AND CONTRACT DATA

# C1.1: FORM OF OFFER AND ACCEPTANCE

## FORM OF OFFER AND ACCEPTANCE

**(AGREEMENT)**

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

TENDER NOTICE NO: 156 / 2022 – CONTRACT FOR BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections

The tenderer, identified in the offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender schedules and by submitting this offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this FORM OF OFFER AND ACCEPTANCE, the Tenderer offers to perform all of the obligations and liabilities of the Service Provider under the contract, including compliance with all its terms and conditions according to their true intent and meaning, for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Rand (in words),

R \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (in figures).

This offer may be accepted by the Employer, by signing the acceptance part of this FORM OF OFFER AND ACCEPTANCE and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For the Tenderer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Name and Address of Organisation)

Name & Signature

of Witness \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ACCEPTANCE

By signing this part of this FORM OF OFFER AND ACCEPTANCE, the Employer identified below, accepts the Tenderer’s offer. In consideration thereof, the Employer shall pay the contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Tenderer’s offer shall form an agreement between the Employer and the Tenderer upon the Terms and Conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:  
 Part C1: AGREEMENTS AND CONTRACT DATA (which includes this agreement)  
 Part C2: PRICING DATA  
 Part C3: SCOPE OF WORK  
 Part C4: SITE INFORMATION  
and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the Tender Data and any Addenda thereto as listed in the Tender Schedule as well as any changes to the terms of the offer agreed by the Tenderer and the Employer during this process of Offer and Acceptance, are contained in the Schedule of Deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorized representative(s) of both parties.

The Tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the Employer’s agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at or just after the date this agreement comes into effect. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For the Tenderer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Name and Address of Organisation)

Name & Signature

of Witness \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SCHEDULE OF DEVIATIONS

NOTES:

1. The extent of deviations from the tender documents, issued by the Employer, prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
2. A Tenderer’s covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as previously mentioned, become the subject of agreements during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of Offer and Acceptance either as a confirmation, clarification or change to the tender document and which it is agreed by the Parties become an obligation of the Contract shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here shall also be incorporated in the final draft of the Contract.
5. Subject: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Subject: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Subject: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Subject: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Subject: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Subject: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and Addenda thereto as listed in the Tender Schedule, as well as any confirmation, clarification or change to the Terms of the Offer agreed by the Tenderer and the Employer during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communications or implied during the period between the issue of the tender document and the receipt by the Tenderer of a completed signed copy of this agreement shall have meaning or effect in the contract between the parties arising from this Agreement.

FOR THE CONTRACTOR (SUCCESSFUL TENDERER):

Signature(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Capacity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For the Contractor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Name and Address of Organisation)

Name & Signature

of Witness \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# C1.2: CONTRACT DATA

## PART 1: DATA PROVIDED BY THE EMPLOYER

**CONTRACT DATA FOR TENDER NOTICE NO:156 / 2022**

BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections

PART 1: DATA PROVIDED BY THE EMPLOYER

**CONDITIONS OF CONTRACT**

The General Conditions of Contract for Construction Works, Third Edition, 2015 (SAICE), or as amended, as published by the South African Association of Consulting Engineers, (SAACE), is applicable to this Contract and is obtainable from CESA at own cost.

CONTRACT SPECIFIC DATA

The following contract specific data, referring to the General Conditions of Contract are applicable to this Contract:

Compulsory Data

**Clause 1.1.1.11:**

The Defects Liability Period is *12 (Twelve) months, measured from the date of the Certificate of Completion.*

**Clause 1.1.1.12**:

The name of the Employer is *Kouga* *Municipality.*

**Clause 1.1.1.26:**

The Pricing Strategy is *Re-measurement Contract.*

**Clause 1.2.1.2:**

The address of the Employer is *PO Box 21, JEFFREYS BAY, 6330.*

**Clause 1.1.1.16:**

The name of the Engineer is *CVW CONSULTING ENGINEERS (Pty) Ltd*.

**Clause 1.2.1.2:**

The address of the Engineer is *P O Box 281, HARTENBOS, 6520 or 24 Bland Street, MOSSEL BAY, 6500.*

**Clause 1.3.5:**

The Engineer shall retain *copyright and property rights on his documentation*, *etc.*

**Clause 4.4.3:**

Add the Engineer to the consultation between the Employer and the Contractor

**Clause 5.3.1:**

The Commencement Date will be the date that the site is handed over to the Contractor by the Engineer/Client.

The Contractor shall commence executing the Works within *14 (fourteen) days from the Commencement Date.*

The documentation required before commencement with Works execution is:

Health and Safety Plan (Refer to Clause 4.3)

Initial programme (Refer to Clause 5.6)

Security (Refer to Clause 6.2)

Insurance (Refer to Clause 8.6).

**Clause 5.3.2:**

The time to submit the documentation required before commencement with Works execution is *14, (Fourteen), days.*

**Clause 5.4:**

*Add the following sub-clause:*

“5.4.4 The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by him for purposes of the Works.”

**Clause 5.8.1:**

The non-working days are *usually Sundays.*

The special non-working days are:

*(1) Public holidays and the official Builder’s Holiday (Year End Break).*

*(2) The year end break commencing on 15 December and ending on 11 January.*

**Clause 5.13.1:**

The penalty for failing to complete the Works is *0,07% for the final Contract Price per calendar day of delay. Maximum amount of delay damages is 5,00% of Final Contract Price.*

**Clause 5.16.3:**

The latent defect period is *10 (Ten) years.*

**Clause 6.2:**

*Add the following new sub-clause 6.2.4:*

The liability of the security shall be for *10% (Ten percent) of the Tender Sum*.

**Clause 6.6:**

*In the second line of sub-clause 6.6.1.2, after the words “*sum or sums” *insert the words* “excluding VAT.”

*In the first line of sub-clause 6.6.1.2.1, after the words “*sum or sums” *insert the words* “excluding VAT.”

*In the second line of sub-clause 6.6.1.2.2, after the word “*sum” *insert the words* “excluding VAT.”

*In the fourth line of sub-clause 6.6.2, after the word “*price” *insert the words* “excluding VAT.”

**Clause 6.10.1.5:**

The percentage advance on materials not yet built into the Permanent Works is *80 (Eighty) %.*

**Clause 6.10.2:**

*Add the following:*

“Payment to the Contractor for any materials on site shall only be authorised after proof of ownership by the Contractor has been lodged with the Engineer in the form of receipted invoices or other acceptable documents.”

**Clause 6.10.3:**

The limit of retention money is *10 (Ten) %.*

**Clause 6.11:**

For the purpose of this Tender abovementioned Clause shall change so that 15% (Fifteen percent) reads ***100% (One Hundred %)****.*

**Clause 8.6:**

*Add the following new sub-clause 8.6.8:*

“8.6.8 Where the contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the Site, the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication then such interest shall be noted by endorsement to the Contractor’s Policies of insurance.”

**Clause 8.6.1.1.2:**

The value of Plant and Materials supplied by the Employer to be included in the insurance sum is *R0-00 (Nil Rand).*

**Clause 8.6.1.1.3:**

The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is *R 150 000-00 (One Hundred and Fifty Thousand Rand).*

**Clause 8.6.1.3:**

The limit of indemnity for liability insurance is *R 1 000 000-00 (One Million Rand).*

**Clause 9.2.1:**

*Add the following new sub-clause 9.2.1.3.8:*

“9.2.1.3.8 The Contractor fails to provide the required Guarantee and insurances within the prescribed time.”

**Optional Data**

**Clause 3.1.3:**

The Engineer is required to obtain the specific approval of the Employer before executing any of the following functions or duties:

1. Nominating the Engineer’s Representative in terms of Clause 2.4.

2. Delegation of Engineer’s authority in terms of Clause 2.7.

3. Providing consent for subcontracting part of the contract in terms of Clause 6.2.

4. The issuing of further drawings or instructions in terms of Clause 13.1.

5. The issuing of instructions for dealing with fossils and the like in terms of Clause 15.

6. Authorising the Contractor to repair and make good, excepted risks in terms of Clause  
32.2.2

7. The issuing of variation order in terms of Clause 36.2.

8. Issuing of instructions to carry out work on a day work basis in terms of Clause 37.1.4.

9. Granting permission to work during non-working times in terms of Clause 38.1.

10. Suspend the progress of the works in terms of Clause 39.1.

11. The issuing of an instruction to accelerate progress in terms of Clause 40.3.

12. The approval of any extension of time for completion in terms of Clause 42.2.

13. The reduction of a penalty for delay in terms of Clause 43.2.

14. The determination of additional or reduced costs arising from changes in legislation in terms of Clause 46.4.

15. The giving of a ruling on a Contractor’s claim in terms of Clause 48.5.

16. The agreeing for an extension to the 28 period in terms of Clause 48.5.1.

17. The inclusion of credits in the next payment certificate in terms of Clause 48.5.2.

18. The agreeing of the adjustment for the sums for general items in terms of Clause 50.1.

**Clause 5.4.2:**

The access and possession of Site shall not be exclusive to the Contractor but as set out in the Site information.

**Clause 6.8.2:**

The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule. *The Client shall therefore pay escalation for the outer years on this project. CPA (SEIFSA) will be applicable for the outer years. 1st Year is FIXED.*

C1.2 CONTRACT DATA

The General Conditions of Contract for Construction Works – third edition (2015) by the South African Institute of Civil Engineering is applicable to this contract.

The General Conditions of Contract for Construction Works make several references to the Contract Data for specific data, which together with these Conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedure for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the General Conditions of Contract.

Each item of Data given below is cross-referenced to the clause in the General Conditions of Contract for Construction Works to which it mainly applies.

The additional clauses to the General Conditions of Contract are:

## PART 2: DATA PROVIDED BY THE CONTRACTOR

**PART 2: DATA PROVIDED BY THE CONTRACTOR**

**Clause 1.1.1.6:**

The name of the Tenderer is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Clause 1.2.1.2:**

The address of the Tenderer is:

*Physical address*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Postal address*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*E-mail address*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Fax number*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Contact person*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Cell No*.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Clause 29:**

The time for achieving Practical Completion is \_\_\_\_\_\_\_\_\_\_\_ weeks from the Commencement Date.

**Clause 1.1.22:**

The security to be provided by the Tenderer shall be the following:

Performance guarantee of 10 (Ten) % of the Contract Sum.

**Clause 36:**

The percentage allowance to cover overhead charges is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ %.

**SIGNED ON BEHALF OF THE TENDERER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**DATE**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**WITNESS**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# C1.3: PRO FORMAS

## C1.3.1 FORM OF GUARANTEE

TENDER NOTICE NO: 156. / 2022

WHEREAS **Kouga** **Municipality**

(hereinafter referred to as “the Employer”) entered into a Contract with

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(hereinafter called “the Contractor”)

on the \_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 20 \_\_\_\_\_

for the construction of:

**BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections**

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

has/have at the request of the Contractor, agreed to give such a guarantee.

NOW THEREFORE WE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money.
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
5. Our total liability hereunder shall not exceed the sum of:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(R \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

1. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon the Guarantor’s liability hereunder shall cease.
2. This guarantee is neither negotiable nor transferable.
3. We hereby choose our address for the serving of all notices for all purposes arising here from as:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

IN WITNESS WHERE OF this guarantee has been executed by us at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_on

this \_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 20\_\_\_\_\_ .

Duly authorized to sign on behalf of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

As witnesses:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## C1.3.2 CERTIFICATE OF OWNERSHIP OF MATERIAL ON SITE

FULL NAME OF CONTRACTOR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ADDRESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NAME OF EMPLOYER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ADDRESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CONTRACT DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CONTRACT NO.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The undersigned Contractor hereby certifies that:

1. The material listed hereunder (the material), which were formerly my sole and exclusive property and to which no third party has any rights, have been paid for all and lawfully acquired by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the Employer),
2. Upon such payment constructive delivery of the material to the Employer took place,
3. Ownership of the material vests in the Employer,
4. The material is insured in accordance with the requirements of the General Conditions of Contract,
5. The material is held by the Contractor in storage for and on behalf of the Employer at (address) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the premises), and certifies further that the premises are:
6. The property of the Contractor; or
7. The property of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (of address) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

And are let to the Contractor by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(of address) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| LIST OF MATERIAL ON SITE |
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SIGNED ON BEHALF OF THE CONTRACTOR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WITNESS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## C1.3.3 OHS MANDATARY FORM

(TO BE COMPLETED AND SIGNED BY ALL MANDATARIES)

**OCCUPATIONAL HEALTH AND SAFETY ACT**

**NO. 85 OF 1993**

**Note: Section 1(1)(xxviii) of the Act defines a “Mandatory” as including “an Agent, a Contractor or a Sub-Contractor for Work.”**

The Employer and the Contractor hereby agree, in terms of the provisions of Section 37 (2) of the Occupational Health and Safety Act, Act No. 85 of 1993, hereinafter referred to as “the Act”, that the Contractor as an Employer in its own right and in its capacity as Contractor for the execution of the works, shall have certain obligations and that the following arrangement shall apply between them to ensure compliance by the Contractor with the provisions of the Act, namely:

1. The Contractor undertakes to acquaint the appropriate officials and the employees of the Contractor with all relevant provisions of the Act and the regulations promulgated in terms of the Act, and
2. The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and regulations will be fully complied with, and
3. The Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and regulations in respect of the work included in the Contract, and
4. The Contractor shall be obliged to report forthwith to the Employer any investigation, complaint, or criminal charge which may arise as a consequence of the provisions of the Act and regulations pursuant to work performed on behalf of the Employer and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Signed at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 20\_\_\_\_\_.

**WITNESS:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for and on behalf of the **Contractor**

**WITNESS:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

for and on behalf of the **Kouga Municipality**

# **PART C2:** PRICING DATA

# C2.1: PRICING INSTRUCTION

## PRICING INSTRUCTION

**KOUGA MUNICIPALITY**

**TENDER NOTICE NO: 156 / 2022**

**BILL (SCHEDULE) OF QUANTITIES**

**GENERAL REFERENCES**

1. The work scheduled below is described in more detail in the specifications and drawings. Where certain items are referred to the GCC or Specification or a certain drawing number for more information, the Tenderer is referred to the complete GCC, Specification and Drawings and it must not be presumed that the references are complete.
2. Arithmetical errors will be corrected. See T 1.1: Tender Data: Annexe F: F 3.9 of this Tender Document.
3. The price quoted in the Rate Column next to each item shall be assumed **the all- inclusive price** for the work to be executed as referred to in the item.
4. The prices as tendered in the Bill of Quantities shall be taken as being valid for the full duration of the Tender, unless otherwise stated in C 1.2: Contract Data: Part 1: Clause F.2.10.1 of this Tender Document. For the other years **CPA (SEIFSA)** will be applicable.
5. Should **no rate** be tendered, “**Included Elsewhere**” or “**Nil**” must be written in the Amount Column. A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill.

Where an item is priced “**Included Elsewhere**” or “**NIL**” it will be taken that **no remuneration** is payable or will be paid, **regardless of** if the final quantity differs from the quantity measured in the tender document at the time of handing in of the tender. The Client will thus make **no** additional compensation for these items, regardless of the final quantities for that item.

1. No deviation that may be requested by the Tenderer from the above, or from the GCC, Specification, Bill of Quantities, Tender form and conditions, shall be considered, unless clearly indicated in Part 2: Returnable Documents: Schedule 3 of this Tender Document when the Tender Document is submitted.
2. The costs to comply with all the conditions, obligations and liabilities and as described in the GCC and Specifications, shall be assumed as being all inclusive in this Bill of Quantities, except if indicated differently in Part 2: Returnable Documents: Schedule 3 of this Tender Document.
3. The Bill of Quantities must be completed in **BLACK INK** and must not be removed from the bound set of documents.
4. **No** correction fluid may be used.
5. The time of completion, as specified by the Tenderer, must be written into the Quantity Column in accordance with C 1.2: Contract Data: Part 2 of this Tender document.
6. Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each standardised specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

Reference shall be made, inter alia, to the Drawings, Standard Specifications, Project Specifications, General Conditions of Contract and Special Conditions of Contract for more detailed information regarding the extent of the work entailed under each item.

1. The quantities set out in the Bill of Quantities are the estimated quantities of the Contract Works, but the Contractor will be required to undertake whatever quantities the Engineer may direct from time to time. The Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.
2. The prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted, as these will be used as basis for assessment of payment for additional works that may have to be carried out.
3. Except where rates only are required, insert all amounts to be included in the total tendered price in the “Amount” column and show the corresponding total tendered price.
4. The unit of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

mm = millimetre

m = metre

km = kilometre

m² = square metre: cable size / cross-sectional area

kV = kilo volt

Cu = copper

Al = aluminium

kW = kilowatt

BCC = Bare copper conductor

CPA = Contract Price Adjustment (SEIFSA)

Diagram, text

Description automatically generated

* P – Escalated or New price
* P0 – Base price
* L – Labour percentage
* S – Steel percentage
* EI – Relevant index at the end of the escalation period
* SI – Relevant index at the start of the escalation period

OPGW = Optical Ground Wire

AAAC = All Alloy Aluminium Conductor

1. For the purpose of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit: The unit of measurement for each item of work as defined in the specifications.

Quantity: The number of units of work for each item.

Rate: The payment per unit measurement at which the Tenderer tenders to do the work.

Amount: The product of the quantity and the rate tendered for an item.

Lump Sum: An amount tendered for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but the quantity of work of which is not measured in any units.

1. This Bill of Quantities forms an integral part of the contract documents.

The validity of the contract shall in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment. Work shall be valued at the rates or lump sums tendered, subject only to the provisions of the General Conditions of Contract.

1. Rates and lump sums shall be comprehensive. Full compensation for completing and maintaining, during the maintenance period, all the work shown on the drawings and specified in the specifications, and for all the risks, obligations and responsibilities specified in the General Conditions of Contract, Special Conditions of Contract and specifications shall be considered as provided for collectively in the items of payment given in the Bill of Quantities, except in so far as the quantities given in the Bill of Quantities are only approximate.
2. The stating of quantities of material or amount of work in the Bill of Quantities shall not be regarded as authorization for the Contractor to order material or to execute work. The Contractor shall obtain the Engineer’s detailed instructions for all work before ordering any materials for or executing work or making arrangements in this regard.
3. Reference shall be made to Clause 36 of the General Conditions of Contract regarding provisional sums and prime cost sums.
4. All rates and sums of money quoted in the Bill of Quantities shall be in Rands and whole cents. Fractions of a cent shall be discarded.
5. Final quantities will be calculated to the first decimal point (1 digit)

# C2.2: BILL OF QUANTITIES

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
|  | TO |  |  |  | MATERIAL | LABOUR | COST |
|  |  |  |  |  |  |  |  |
|  |  | **HIGH VOLTAGE RETICULTATION** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| A.1 | DDT1710 | **STAGGERED VERTICAL 800 SPACING - 0 DEG INTERMEDIATE** | 3 |  |  |  |  |
| A.1.1 |  | M20x300 long spindles | 9 | each |  |  |  |
| A.1.2 |  | Silicon Post top insulators (10kN - 31mm/kV) | 9 | each |  |  |  |
| A.1.3 |  | Side groove Ties (AAAC-PINE) | 9 | each |  |  |  |
| A.1.4 |  | Bonding wire (3x3.35) (p/m) | 6 | m |  |  |  |
| A.1.5 |  | Galvanised wire staples (p/kg) | 0.15 | kg |  |  |  |
| A.1.6 |  | Bonding clip | 15 | each |  |  |  |
| A.1.7 |  | SPARK/BIL WIRE GAP DEVICE (set) | 3 | set |  |  |  |
| A.1.8 |  | M12 x 75 COACH SCREWS | 6 | each |  |  |  |
|  |  |  |  |  |  |  |  |
| A.2 | DDT1713 | **VERTICAL 800 SPACING - STRAIN** | 4 |  |  |  |  |
| A.2.1 |  | Bonding wire (3x3.35) (p/m) | 8 | m |  |  |  |
| A.2.2 |  | Galvanised wire staples (p/kg) | 0.2 | kg |  |  |  |
| A.2.3 |  | Bonding clip | 12 | each |  |  |  |
| A.2.4 |  | D-Shackles | 24 | each |  |  |  |
| A.2.5 |  | BOLT, EYE GALV M20X250mm | 12 | each |  |  |  |
| A.2.6 |  | NUT, EYE 70kN M20X2,5-6H BOLT | 12 | each |  |  |  |
| A.2.7 |  | Silicon Longrod Insulators (40kN - 31mm/kV) | 24 | each |  |  |  |
| A.2.8 |  | Silicon Post top insulators (10kN - 31mm/kV) | 12 | each |  |  |  |
| A.2.9 |  | M20x300 long spindles | 12 | each |  |  |  |
| A.2.10 |  | Cab 100 Clevis Timbles | 24 | each |  |  |  |
| A.2.11 |  | Dead End (AAAC-PINE) | 24 | each |  |  |  |
| A.2.12 |  | Side groove Ties (AAAC-PINE) | 12 | each |  |  |  |
| A.2.13 |  | Non-Tension joint (AAAC-PINE) | 12 | each |  |  |  |
| A.2.14 |  | Pistol grips | 12 | each |  |  |  |
| A.2.15 |  | 1700 Special Steel Cross Arm | 8 | each |  |  |  |
|  |  |  |  |  |  |  |  |
| A.3 | SANS753 | **WOODEN POLES** |  |  |  |  |  |
| A.3.1 |  | 9m, 180-199top wooden pole | 4 | each |  |  |  |
| A.3.2 |  | 11m, 160-179top wooden pole | 3 | each |  |  |  |
| A.3.3 |  | 12m, 160-179top wooden pole | 1 | rate |  |  |  |
| A.3.4 |  | 11m, 180-199top wooden pole | 8 | each |  |  |  |
| A.3.5 |  | 12m, 180-199top wooden pole | 1 | rate |  |  |  |
| A.3.6 |  | 11m, 200-219top wooden pole | 1 | rate |  |  |  |
| A.3.7 |  | 12m, 200-219top wooden pole | 1 | rate |  |  |  |
|  |  |  |  |  |  |  |  |
| A.4 |  | **POLE & STAY HOLES (DRILLING)** |  |  |  |  |  |
| A.4.1 |  | 9m Pole - 1.5m | 4 | each |  |  |  |
| A.4.2 |  | 11m Pole - 1.8m | 9 | each |  |  |  |
| A.4.3 |  | 12m Pole - 2m | 1 | rate |  |  |  |
| A.4.4 |  | MV Stay (1.5 times 11m pole depth) | 3 | each |  |  |  |
| A.4.5 |  | MV Strut (500mm min depth) | 6 | each |  |  |  |
|  |  |  |  |  |  |  |  |
| TOTAL CARRIED FORWARD | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
|  | TO |  |  |  | MATERIAL | LABOUR | COST |
|  |  |  |  |  |  |  |  |
|  |  | BROUGHT FORWARD |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| A.5 | DDT0341 | **MV STAYS** | 3 |  |  |  |  |
| A.5.1 |  | Guy Grip make-off | 3 | each |  |  |  |
| A.5.2 |  | Guy Grip Dead End | 9 | each |  |  |  |
| A.5.3 |  | Strain - Stay insulator - 97kN | 3 | each |  |  |  |
| A.5.4 |  | Timble | 3 | each |  |  |  |
| A.5.5 |  | Stay base plate (M20 340x375x6) | 3 | each |  |  |  |
| A.5.6 |  | Stayrod 2000M20 - 97kN - NON-ADJUSTABLE | 3 | each |  |  |  |
| A.5.7 |  | Stay wire (7x4.00) | 39 | m |  |  |  |
|  |  |  |  |  |  |  |  |
| A.6 | DDT0342 | **MV STRUT** | 6 |  |  |  |  |
| A.6.1 |  | Strut swivel bracket - complete | 6 | each |  |  |  |
| A.6.2 |  | Anti-Climbing device - Barbed Wire | 6 | m |  |  |  |
| A.6.3 |  | Danger sign | 6 | each |  |  |  |
| A.6.4 |  | M20x6x375 - Stay plate | 6 | each |  |  |  |
| A.6.5 |  | M20x350 THREADED ROD ASSEMBLIES | 24 | each |  |  |  |
| A.6.6 |  | Galvanised wire staples | 0.9 | kg |  |  |  |
|  |  |  |  |  |  |  |  |
| A.7 | PS-PE | **POLE MOUNTED TRANSFORMER EARTHING** |  |  |  |  |  |
|  |  | 1 X MV EARTH + 1 X LV EARTH INSTALLED 0.5M BELOW GROND LEVEL. Include insulated earth to main 6m separation between MV and LV earth |  |  |  |  |  |
| A.7.1 |  | PMT earthing | 2 | each |  |  |  |
|  |  |  |  |  |  |  |  |
| A.8 | DDT3136 | **CONDUCTOR** |  |  |  |  |  |
| A.8.1 |  | AAAC - PINE | 3000 | m |  |  |  |
|  |  |  |  |  |  |  |  |
| A.9 | SANS 780 | **POLE MOUNTED TRANSFORMER** |  |  |  |  |  |
|  |  | Complete pole structure with cradle, 1 x set drop out fuses |  |  |  |  |  |
| A.9.1 |  | 200kVA 11000/420V – Dyn11 | 1 | rate |  |  |  |
| A.9.2 |  | 315kVA 11000/420V – Dyn11 | 1 | rate |  |  |  |
| A.9.3 |  | 400kVA 11000/420V – Dyn11 | 1 | rate |  |  |  |
| A.9.4 |  | 500kVA 11000/420V – Dyn11 | 1 | each |  |  |  |
|  |  |  |  |  |  |  |  |
| TOTAL CARRIED FORWARD | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
|  | TO |  |  |  | MATERIAL | LABOUR | COST |
|  |  |  |  |  |  |  |  |
|  |  | BROUGHT FORWARD |  |  |  |  |  |
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| A.10 |  | **POLE MOUNTED TRANSFORMER LV KIOSK** |  |  |  |  |  |
|  |  | POLYETHYLENE INSTALLED WITH IP65 + COASTAL SPEC; include 800A BUSBARS + MOUNTING RAILS |  |  |  |  |  |
| A.10.1 |  | PMT LV KIOSK | 2 | each |  |  |  |
|  |  |  |  |  |  |  |  |
| A.11 |  | **MV JOINTS (full tension)** |  |  |  |  |  |
| A.11.1 |  | AAAC - PINE | 3 | each |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| A.12 | SANS 780 | **DISTRIBUTION TRANSFORMER** |  |  |  |  |  |
|  |  | Supply all the labour and material, deliver, install, test and commission the following: Vector: DYN11 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| A.12.1 |  | 3 150kVA 22/11kV | 1 | rate |  |  |  |
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| TOTAL CARRIED FORWARD | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
|  | TO |  |  |  | MATERIAL | LABOUR | COST |
|  |  |  |  |  |  |  |  |
|  |  | **LOW VOLTAGE RETICULTATION** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| B.1 | SANS 753 | **WOODEN POLES** |  |  |  |  |  |
| B.1.1 |  | 9 m WOODEN POLES (160-179mm) | each | 60 |  |  |  |
| B.1.2 |  | 9 m WOODEN POLES (180-199mm) | each | 10 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.2 |  | **9 m WOODEN POLE HOLES - 1,5M DEEP** | each | 70 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.3 | PS 9.3.3 | **LV - STAYS (1,8m Stayrod+plate)** | each | 28 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.4 |  | **STAY HOLES** | each | 28 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.5 |  | **Struts + Strut Pole Bracket + Anti-climbing device** | each | 6 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.6 |  | **Strut holes** | each | 6 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.7 | PS 9.3.5 | **NEUTRAL EARTHS 35 mm2** | each | 16 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.8 | SANS 1418 | **LOW VOLTAGE AERIAL BUNDLE ABC - SANS 1418 (PART 1&2)** |  |  |  |  |  |
|  | PS PAB |  |  |  |  |  |  |
| B.8.1 |  | 120 mm² x 3 + 54 mm² + SL | rate/m | 1 |  |  |  |
| B.8.2 |  | 95 mm² x 3 + 54 mm² + SL | m | 250 |  |  |  |
| B.8.3 |  | 70 mm² x 3 + 54 mm² + SL | m | 180 |  |  |  |
| B.8.4 |  | 50 mm² x 3 + 54 mm² + SL | m | 400 |  |  |  |
| B.8.5 |  | 35 mm² x 3 + 54 mm² + SL | m | 350 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.9 | SANS 10198 | **LOW VOLTAGE AERIAL BUNDLE ABC TERMINATIONS** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| B.9.1 |  | 120 mm² x 3 + 54 mm² + SL | rate | 1 |  |  |  |
| B.9.2 |  | 95 mm² x 3 + 54 mm² + SL | each | 5 |  |  |  |
| B.9.3 |  | 70 mm² x 3 + 54 mm² + SL | each | 7 |  |  |  |
| B.9.4 |  | 50 mm² x 3 + 54 mm² + SL | each | 11 |  |  |  |
| B.9.5 |  | 35 mm² x 3 + 54 mm² + SL | each | 35 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.10 |  | **STRAIN CLAMPS** | each | 45 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.11 |  | **SUSPENSION CLAMPS** | each | 38 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.12 |  | **PIGTAIL BOLTS M16 x 350mm** | each | 72 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.13 | NRS 032 | **POLE MOUNTED JUNCTION BOX: POLYETHYLENE** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| B.13.1 |  | 4 - Way BOX ABC + N | each | 40 |  |  |  |
| B.13.2 |  | 2 - Way BOX ABC + N | each | 18 |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| TOTAL CARRIED FORWARD | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
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|  |  | BROUGHT FORWARD |  |  |  |  |  |
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| B.14 | PS 9.3.6 | **TERMINATIONS + TTD 201 CONNECTORS (DOUBLE TTD CONNECTOR ON NEUTRAL CONDUCTOR)** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| B.14.1 |  | 4 - Way BOX ABC + N - 35 mm² ABC - 3m | each | 40 |  |  |  |
| B.14.2 |  | 2 - Way BOX ABC + N - 35 mm² ABC - 3m | each | 18 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.15 | PS 10.3 | **IP CONNECTORS (ABC BUNDLE) SANS APPROVED** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| B.15.1 |  | TTD 201 Connectors (35-95 Main / 25-95 Tap) | each | 55 |  |  |  |
| B.15.2 |  | TTD 401 Connectors (50-185 Main / 50-150 Tap) | rate | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.16 | PS 10.3 | **END CAPS** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| B.16.1 |  | GPE 4 (35-50 mm) | each | 42 |  |  |  |
| B.16.2 |  | GPE 5 (70-95 mm) | each | 22 |  |  |  |
| B.16.3 |  | GPE 7 (120 mm) | rate | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.17 |  | **KICKER PIPE (STEEL, 3m) -** | each | 16 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.18 | SANS 1507 | **UNDERGROUND SERVICES** |  |  |  |  |  |
| B.18.1 |  | 95mm2 Cu PVC SWA - 4Cr Cable | rate/m | 1 |  |  |  |
| B.18.2 |  | 70mm2 Cu PVC SWA - 4Cr Cable | rate/m | 1 |  |  |  |
| B.18.3 |  | 50mm2 Cu PVC SWA - 4Cr Cable | rate/m | 1 |  |  |  |
| B.18.4 |  | 35mm2 Cu PVC SWA - 4Cr Cable | rate/m | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.19 | SANS 1507 | **BCC** |  |  |  |  |  |
| B.19.1 |  | 50mm2 BCC | rate/m | 1 |  |  |  |
| B.19.2 |  | 35mm2 BCC | rate/m | 1 |  |  |  |
| B.19.3 |  | 25mm2 BCC | rate/m | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.20 |  | **TERMINATIONS** |  |  |  |  |  |
| B.20.1 |  | 95mm2 Cu PVC SWA - 4Cr Cable | rate | 1 |  |  |  |
| B.20.2 |  | 70mm2 Cu PVC SWA - 4Cr Cable | rate | 1 |  |  |  |
| B.20.3 |  | 50mm2 Cu PVC SWA - 4Cr Cable | rate | 1 |  |  |  |
| B.20.4 |  | 35mm2 Cu PVC SWA - 4Cr Cable | rate | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.21 |  | **BCC - TERMINATIONS** |  |  |  |  |  |
| B.21.1 |  | 50mm2 BCC | rate | 1 |  |  |  |
| B.21.2 |  | 35mm2 BCC | rate | 1 |  |  |  |
| B.21.3 |  | 25mm2 BCC | rate | 1 |  |  |  |
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| TOTAL CARRIED FORWARD | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
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|  |  | BROUGHT FORWARD |  |  |  |  |  |
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| B.22 |  | **DOUBLE POLES** |  | 10 |  |  |  |
| B.22.1 |  | EYE NUTS M20 (TWO PER POLE) | each | 22 |  |  |  |
| B.22.2 |  | M20 x 1000mm BOLT ASSEMBLIES (FIVE PER POLE) | each | 50 |  |  |  |
| B.22.3 |  | SEMENT (APPROX. 40-42KG PER POLE) | kg | 450 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.23 |  | **LV CIRCUIT BREAKERS** |  |  |  |  |  |
| B.23.1 |  | 250A 25kA - 3 POLE - G4B Terminals | rate | 1 |  |  |  |
| B.23.2 |  | 225A 25kA - 3 POLE - G4B Terminals | each | 3 |  |  |  |
| B.23.3 |  | 200A 25kA - 3 POLE - G4B Terminals | rate | 1 |  |  |  |
| B.23.4 |  | 175A 25kA - 3 POLE - G4B Terminals | each | 2 |  |  |  |
| B.23.5 |  | 150A 25kA - 3 POLE - G4B Terminals | rate | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| B.24 |  | 400W LED FLOOD LIGHTS - include mounting on wooden pole and  termination tails to ABC bundle conductor | each | 9 |  |  |  |
|  |  |  |  |  |  |  |  |
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| TOTAL CARRIED FORWARD | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
|  | TO |  |  |  | MATERIAL | LABOUR | COST |
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|  |  | **SERVICE CONNECTIONS** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| C.1 | SANS 1507 | **SERVICE CONNECTION CABLE** |  |  |  |  |  |
| C.1.1 |  | 10 mm² AIRDAC OVERHEAD CABLE (SEPARATE NEUTRAL EARTH) | m | 6000 |  |  |  |
| C.1.2 |  | 16 mm² AIRDAC OVERHEAD CABLE (SEPARATE NEUTRAL EARTH) | rate/m | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.2 |  | **PIGTAIL SCREWS** | each | 400 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.3 |  | **STRAIN CLAMPS AIRDAC** | each | 400 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.4 |  | **6kA QF-1(26) Circuit Breakers - CURVE 1** |  |  |  |  |  |
| C.4.1 |  | 80 A - 6kA QF-1(26) CB - CURVE 1 | rate | 1 |  |  |  |
| C.4.2 |  | 50 A - 6kA QF-1(26) CB - CURVE 1 | rate | 1 |  |  |  |
| C.4.3 |  | 45 A - 6kA QF-1(26) CB - CURVE 1 | each | 200 |  |  |  |
| C.4.4 |  | 30 A - 6kA QF-1(26) CB - CURVE 1 | rate | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.5 |  | **TERMINATION 10 mm² AIRDAC TO POLE BOXES** | each | 200 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.6 |  | **TERMINATION 10 mm² AIRDAC TO JUNCTION BOX** | each | 200 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.7 |  | **COC FOR EACH HOUSE CONNECTION** | each | 200 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.8 |  | **GL4 JB1010 IP66 Terminal Junction Boxes** | each | 200 |  |  |  |
|  |  |  |  |  |  |  |  |
| C.9 |  | **STS Prepaid split meter complete with CIU** | each | 200 |  |  |  |
|  |  |  |  |  |  |  |  |
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| TOTAL CARRIED FORWARD | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
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|  |  | **EXCAVATIONS** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| D.1 | SANS 2001-DP6: 2012 | The tariffs below include the digging of trenches and holes, the separation of stone, rock and sand and the backfilling, compacting and repair of all surfaces to the original finish: |  |  |  |  |  |
| D.1.1 |  | Soft material | rate/m³ | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| D.1.2 |  | Intermediate excavations | rate/m³ | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| D.1.3 |  | Hard rock | rate/m³ | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| D.1.4 |  | Import sand including handling cost | rate/m³ | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| D.1.5 |  | Remove surplus material including handling cost | rate/m³ | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| D.2 | SANS 2001-DP6: 2012 | The following will be applicable where other services exist: |  |  |  |  |  |
| D.2.1 |  | Excavation by hand to expose the |  |  |  |  |  |
|  |  | following services crossing the trench: |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| D.2.1.1 |  | Pipes | rate/m | 1 |  |  |  |
| D.2.1.2 |  | Cables | rate/m | 1 |  |  |  |
| D.2.1.3 |  | Concrete structures | rate/m | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| D.2.2 |  | Excavation next to the following: |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| D.2.2.1 |  | Pipes | rate/m | 1 |  |  |  |
| D.2.2.2 |  | Cables | rate/m | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| D.3 | SANS 1200M | Repair to surfaces. Standard trench width will be measured: |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| D.3.1 |  | Concrete or brick paving | rate/m² | 1 |  |  |  |
| D.3.2 |  | Concrete with a minimum thickness of 75 mm | rate/m² | 1 |  |  |  |
| D.3.3 | SANS 1200MH | Tarred road to SABS standards | rate/m² | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| TOTAL CARRIED FORWARD TO SUMMARY | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
|  | TO |  |  |  | MATERIAL | LABOUR | COST |
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|  |  | **PROVISIONAL AND GENERAL** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| E.1 | PS 6 | Erection and removal of notice board (per project) | each | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| E.2 | SANS 1200 A Par.8.2.1 | Fixed charge and Value related items |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| E.2.1 |  | Contractual requirements | Sum | 1 |  |  |  |
| E.2.2 |  | Erection of facilities on site | Sum | 1 |  |  |  |
| E.2.3 |  | Removal of facilities from site | Sum | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
| E.3 | SANS 1200 A Par.8.2.2 | Time related items |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| E.3.1 |  | Contractual requirements | Sum | 1 |  |  |  |
| E.3.2 |  | Usage and maintenance of facilities on site | Sum | 1 |  |  |  |
| E.3.3 |  | Supervision | Sum | 1 |  |  |  |
| E.3.4 |  | Company and Head Office overhead costs | Sum | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| E.4 | OHS ACT 85 OF 1993 | OHS Audit & Inspections |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| E.4.1 |  | Allow for 4 site inspections + 3 site audit reports + 1 Close out report | Sum | 1 |  |  |  |
|  |  |  |  |  |  |  |  |
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| TOTAL CARRIED FORWARD TO SUMMARY | | |  |  |  |  |  |

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| ITEM | REFER | DESCRIPTION | UNIT | QTY | UNIT RATES | | TOTAL |
|  | TO |  |  |  | MATERIAL | LABOUR | COST |
|  |  | **SUMMARY** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.1 |  | SECTION A: HIGH VOLTAGE |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.2 |  | SECTION B: LOW VOLTAGE |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.3 |  | SECTION C: SERVICE CONNECTIONS |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.4 |  | SECTION E: EXCAVATIONS |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.5 |  | SECTION F: PROVISIONAL AND GENERAL |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.6 |  | SUB TOTAL 1 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.7 |  | 10 % CONTINGENCY |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.8 |  | SUB TOTAL 2 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.9 |  | PROFESSIONAL FEES |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.10 |  | SUB TOTAL 3 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| F.11 |  | VAT 15% |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **GRAND TOTAL** |  |  |  | |  |  |  |

# **PART C3:** SCOPE OF WORKS

# C3.1: DESCRIPTION OF THE WORKS: PROJECT SPECIFICATION

**KOUGA MUNICIPALITY**

**TENDER NOTICE NO: 156 / 2022**

**CONTRACT NO. ME 1590/10**

**BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections**

THIS PROJECT WILL BE A MULTI YEAR PROJECT, SUBJECT TO THE AVAILABILITY OF FUNDS AND SUBJECT TO THE BUDGET BEING APPROVED BY COUNCIL.

**PROJECT SPECIFICATION**

**SCOPE**

Section 1 contains a general description of the project, available facilities and the conditions with which the works have to comply.

Section 2 consists of variations to the standardised and particular specifications applicable to this contract.

The specification and drawings show the general nature of the work and not all details are shown. The responsibility lies with the contractor to provide for all materials and installation in order to furnish a complete functional installation.

**CONTRACTOR’S RESPONSIBILITY**

The work consists of the supply, installation, -testing, commissioning and free maintenance during the guarantee period of the installation detailed in this Specification and on the accompanying drawings.

The Contractor shall provide all materials, equipment, labour and services necessary for the complete, safe and efficient installation and operation of the electrical installation in accordance with the intent of this Specification and the drawings. The tendered prices shall include all costs incurred in meeting these requirements.

**STATUTORY REQUIREMENTS AND STANDARDS**

The activities shall comply with the statutory requirements and relevant guidelines, inter alia the Occupational Health and Safety Act 85 of 2014 as amended, Municipal bylaws and regulations and any special requirements of the supply authority, the relevant standards and codes of practice, whether NRS,SABS or BS.

**SAFETY PROCEDURE**

Any switching of existing power supplies shall be arranged beforehand with the Responsible Person of the Municipality.

The Contractor shall not perform work on any portion of a network until such portion has been isolated and earthed.

The Contractor shall request a written Work Permit from the Responsible Person, which shall be completed in duplicate. The original Work Permit shall be retained by the Contractor until completion of his work. Upon completion of the work, the Contractor shall sign a statement to this effect. He shall hand this statement, as well as the used Work Permit to the Responsible Person, to enable the latter to re-energise the relevant portion/portions of the network.

**CONFLICT BETWEEN SPECIFICATIONS AND DRAWINGS**

Should there be conflict between the Specification and the Drawings then sections shall be considered in the following order of priority:

Project Specification

Standard Technical Specifications

Schedule of Quantities

Drawings

Should the Contractor note an inconsistency between the Specification and Drawings, he shall be responsible for notifying the Engineer and obtaining clarification or instructions prior to ordering or installing equipment.

# C3.1 THE WORKS

PS PRECEDENCE OF PROJECT SPECIFICATION

STATUS

Should any requirement or provision in the parts of the Scope of Work conflict with any requirement of any Standardized Specification, particular specification or any drawings, the order of precedence, unless otherwise specified, is:

Bill of Quantities

Drawings  
Project Specifications   
Particular Specifications

SANS AND NRS Standardized Specifications

# C3.2 PROJECT SPECIFICATIONS

**PS 1 DESCRIPTION OF THE WORK**

The project consists of the following:

The Electrification of Low Cost Housing project(s) on behalf of the Kouga Municipality for period of 12 months and will comprise the following:

**PART 1:**

1. Medium voltage reticulation
2. Low voltage reticulation – ABC aerial bundle conductor
3. Electrical service connections
4. Power Transformers/pole mounted transformers
5. low voltage underground cables – where applicable
6. Pole mounted Boxes for Service Connections
7. Pre-paid Meters

**PS 2 LOCALITY AND ACCESS**

All drawings will be available at the start of the contract period.

**PS 3 NATURE OF STRATA AND MATERIAL ON SITE**

The ground appears to be a mixture of clay and rock. It is the Contractor’s responsibility to acquaint himself with the site conditions.

**PS 4 OPERATING CONDITIONS AND PARAMETERS**

All the material and equipment supplied in terms of this Contract shall be suitable for continuous operation at the total specified output or capacity under the following conditions:

**Climatic Conditions:**

Altitude : 0 – 300 m above sea level

Temperatures:

Utmost maximum : 40 ˚C

Utmost minimum : -10 ˚C

Relative humidity:

Utmost maximum : 95 %

Utmost minimum : 5 %

Atmosphere : Coastal climate with severe corrosive

conditions

Lighting : Medium

Thermal resistivity of soil : 1,2 ˚C m/W

Average soil temperature : 25 ˚C

System Details

System Nominal Voltage : 400 / 231 V

System Highest Voltage : 440 / 254 V

Neutral Earthing : Solid

Nominal System Frequency : 50 Hz

Number of Phases : 3

**PS 5 DETAILS OF CONTRACT: PART 1**

The Contractor shall carry out in a logical sequence the various components of the project work.

**PS 5.1.1 MEDIUM VOLTAGE RETICULATION**

As per Particular Specifications and Drawings.

The installation of cables shall comply with Particular Specification PI, (Installation of Underground Cables) and PXB, (Trenches and Excavations). Cable routes and sizes as depicted on Drawings. The cables shall be 11 / 11 kV PILC PVC GDSTA PVC cables to SABS 97 / 1991 Table 18 with copper conductors. Cable terminations shall be by means of approved heat shrink, cold shrink or slip-on termination kits. The cable lugs shall be crimped with a compression tool and hexagonal dies. Indent crimps will not be accepted.

Cable joints shall be by means of underground cast iron joint kits consisting of a split cast iron casing, a seamless lead sleeve, spacers, cotton and paper tapes, filler plugs, etc.

Where cables cross residential erven, the cables shall be installed at a minimum depth of 1200 mm. Concrete slabs shall be installed 300 mm above the cables for the full length and width of the trench where it crosses the erven.

The Contractor shall allow for pulling the cables through the PVC sleeves at the road crossings as indicated. The crossings will be done by others under the PC sum allowed for in the Bill of Quantities.

The ferrules shall be crimped with a compression tool with hexagonal dies. Indent crimps will not be accepted.

Only experienced and competent cable jointers will be permitted to do the jointing.

All cables shall be pressure tested in the presence of a representative of the Consultant and the relevant Test Certificates shall be made out.

11 / 11 kV Cu PILC PVC GDSTA PVC to SANS: 97.

**PS 5.2 LOW VOLTAGE RETICULATION**

**PS 5.2.1 UNDERGROUND CABLES**

The installation of cables shall comply with Particular Specification PI, (Installation of Underground Cables) and PXB, (Trenches and Excavations). Cable routes and sizes are as depicted in Drawings, which will be available at the start of the contract period. The Tenderer is also required to comply with the Standard Electrical Services Agreement, as issued by the Electrical Department of Kouga Municipality and Drawings.

The cables shall be 4-core and 2-core PVC insulated PVC bedded SWA PVC sheathed 600 / 1000 V cables with copper conductors manufactured to SANS 1507. Cables which do not bear the SANS mark will not be accepted.

Only one joint per cable drum length shall be permitted unless otherwise approved by the Engineer. Cable joints shall be of the epoxy resin type, similar to “Scotch Cast” and shall be done strictly in accordance with the directions of the manufacturer. Cable cores shall be joined to the corresponding phase colours or numbers. Cores shall be joined by means of crimping ferrules. The ferrules shall be crimped by a compression tool with hexagonal dies. Indent crimps will not be accepted. Only experienced and competent cable jointers will be permitted to do the jointing.

Indoor terminations shall be by means of nickel-plated adjustable armour gripping cable glands and rubber shrouds. The size of the glands and shrouds shall be in accordance with the cable sizes. Lugs shall be crimped by a compression tool with hexagonal dies. Indent crimps will not be accepted. All lugs shall be colour coded by means of neoprene rubber sleeves or heat shrink tubing. PVC taped lugs will not be accepted.

The connections between the cable lugs and ancillary equipment shall be by means of brass or stainless-steel bolts, -nuts, washers and spring washers.

Outdoor terminations shall be by means of heat shrink boots and correctly sized copper to aluminium connectors. The connectors shall have minimum ratings of 6 kV and IP 67.

Insulation testing of the cables shall be done in the presence of a representative of the Consultants and the relevant certificates shall be completed.

PVC; SWA; MVGP grade to SANS 1507. **Maximum size allowed in L.T. reticulation: 120mm2 × 4 core cu. Cable**

**PS 5.2.2 PRE-PAYMENT METERS**

**STS Prepaid split meter** or equally approved, the split metering solutions consists of two parts, the meter and the customer interface unit. Communication between the meter and the customer interface unit is by means of G3-PLC Power Line Carrier, using existing household wiring; no additional communication wires are required.

The meter must consist of two parts, the Metering and Control Unit (MCU) and the Customer Interface Unit (CIU) or User Interface Unit (UIU).

Similar to IST Octagon / Strike Technology / Delta Communications Metering and Control Unit (MCU)

The MCU must consist of metering and control circuits as well as a disconnection device.

The MCU must contain led’s for consumption rate, communication status and contractor status.

Customer Interface Unit (CIU) or User Interface Unit (UIU)

The following key functionality must be displayed on the CIU or UIU: Credit status

Acceptance or rejection of tokens

Instantaneous load consumption

Status of Communication between the CIU or UIU and the MCU

Historical usage data and the ability to recall the last five credit tokens entered.

Key Functions

20 Digit STS encryption

IEC 62055-31, 41, 51 compliant IR 1107 Optical Interface Maximum current of 80A with Class 1 accuracy Disconnects on overload and no credit.

Technical Specifications

Must comply with the following Standards: IEC 62055-31, 41, 51 and 52

SANS 1524-1

Metering Control Unit (MCU)

Rated voltage: 230V (-20%, +15%) 50Hz

Frequency: 50HZ

Maximum Current: 80A

Accuracy: Class 1

Maximum Withstand Voltage: 415 V

Power Consumption: <2W & 10A

Rate Indicator: LED 1000 pulses/kWh

Status Indicators: Consumption Rate, Operational Status/Communication

and Contactor Status

LED Installation: 35mm DIN-Rale Mounting

Disconnection Device: 80A, Single-Pole Bi-Stable

Latch Operating Temperature: -10, +55 Degrees

Celsius Humidity Operating Range: 95% RH

IP Rating: IP51

Communication Range: 150m

Auxiliary wiring to CIU: Two-part Connector-Accepting 2.5mm Cable

Customer Interface Unit (CIU) or User Interface Unit (UIU)

User Interface: 12 Digit Keypad

Consumption Display: LED

Terminals: Accepting 2.5mm Cable

IP Rating: IP 51

**PS 5.2.3 AERIAL BUNDLE CONDUCTOR SYSTEM**

The installation of the Low Voltage Aerial Bundle Conductor shall comply with Particular Specification PAB.

The Aerial Bundle Conductor shall be installed on 9 m wooden poles. The routes and conductor sizes are as depicted in Drawings, which will be available at the start of the contract period. The Manufacturer’s instructions regarding the handling and stringing of the conductors and installation of the hardware shall be strictly adhered to. Special precautions shall be taken to prevent bird-caging of the conductors. Conductors shall be secured with UV stabilised cable ties at either side of the suspension clamps. The tails of the conductors shall be enclosed in a short length, ( 500 mm), of PVC tubing which shall be strapped to the strain pole. All conductors shall be fitted with end caps. The poles shall be planted at a depth of 1,5 m. The backfill shall be tightly compacted.

**PS 5.2.4 STAYS**

Stay rods shall be hot-dipped galvanised with minimum dimensions of M 16 1 800 mm. Non-adjustable stay rods are acceptable. Stay plates shall be hot-dipped galvanised with minimum dimensions 380 mm 380 mm 5 mm. The stay rod shall be installed at an angle of 45 to the strain pole.

Where the soil conditions permit, anchors, (Platipus or equivalent), will be accepted in place of the stay rods and base plates. All anchors shall be load-locked and proof tested in the presence of the Engineer.

S6, (or equivalent), anchors shall be installed for aerial bundle conductor sizes 25 mm² - 50 mm². S8, (or equivalent), anchors shall be installed for aerial bundle conductor sizes 70 mm² - 120 mm². Stay wire shall be 7 3.35 mm Ø galvanised steel.

A strain insulator with a minimum creepage distance of 48 mm shall be installed in the stay wire.

**PS 5.2.5 STRUTS**

Struts shall be 9 m creosoted wooden poles with 160 mm - 180 mm Ø tops. Struts shall be installed at an angle of 45 to the strain pole and shall be secured by means of a heavy duty hot-dipped galvanised bracket. The base of the strut pole shall be buried at a minimum depth of 300 mm below ground level. A hot-dipped galvanised base plate with minimum dimensions 380 mm 380 mm 5 mm shall be installed at the base of the strut. All struts shall be equipped with anti-climbing devices.

**PS 5.2.6 NEUTRAL EARTHS**

Neutral earths shall consist of 15 m 35 mm² hard drawn bare copper conductors. The neutral conductor of the aerial bundle conductor by means of an approved connector, (NTD 301 F, or similar). The bare copper conductor shall be stapled to the pole at 1 m intervals. The conductor shall be enclosed in a 20 mm Ø galvanised steel conduit to a height of 3 m above ground level. The conduit shall be attached to the pole by means of stainless-steel straps. The remainder of the bare copper conductor shall be buried in the pole hole.

**PS 5.2.7 POLE-MOUNTED BOXES FOR SERVICE CONNECTIONS**

Pole-mounted boxes shall comply with NRS 032 - 1993. Boxes shall be manufactured from non**-**metallic, non-corroding material. The boxes shall have removable covers with self-captivating brass or stainless-steel screws. Boxes shall have a minimum rating of IP 54.

The boxes shall be 2-way, 4-way, 6-way or 8-way. 2-way and 4-way boxes shall be supplied by one phase and one neutral jumper leads. 6-way and 8-way boxes shall be supplied by two phase and one neutral jumper leads. Phase balancing shall be accomplished between successive pole boxes. Each box shall be supplied with a 1 x 45 Amp 6kA curve 1 CBI circuit breaker per consumer and with the appropriate number of compression glands. The jumper leads shall be connected to the Aerial Bundle Conductor System by means of approved copper to aluminium connectors.

Connectors shall have minimum ratings of 6 kV and IP 67.

**NB.: Samples of the pole top boxes shall be submitted to the Engineer for approval prior to ordering.**

**PS 5.2.8 SERVICE CONNECTIONS**

The service connections shall be done by means of 10 mm² circular hard drawn phase conductor, XLPE insulated with concentrically arranged identified neutral and bare earth conductor, with pilot cores overhead cables similar or equal to “Airdac” SNE, with pilot cores. The cables shall be secured to the poles and building by wedge strain assemblies and galvanised pigtail screws. The cables shall be neatly fixed to the walls of the buildings by means of non-metallic moulded clips or saddles. **NO AIRDAC CABLE WILL BE ALLOWED UNDERGROUND.**

One 5 kA 40 Amp single pole circuit breaker installed and connected at the pillar box end. (All fixing material must be rustproof).

At least two metres of cable and earth wire must be coiled, sealed and marked on the erf boundary at the consumer’s end.

However, where the dwellings are erected by the Developer, the Developer will be responsible for the supplying and installation of the service connection, tariff breaker and kWh pre-paid meter up to the dwelling. Only the deposit is then payable by the owner or lessee.

**PS 5.2.9 BACKING BOARDS AND READY BOARDS**

The backing boards shall be manufactured from mild steel plate with a minimum thickness of 1.0 mm. The metal shall be coated with cream-coloured Epoxy powder. The board shall be of sufficient size for mounting the pre-payment meter, surge protection and ready board. The boards shall be securely fixed to the walls of the building by four brass screws and suitably sized “Fischer” plugs, (or similar).

Cable entries to the base of the meter shall be by means of suitably sized compression glands. The base shall be completely sealed off against the ingress of moisture, dust or vermin prior to the installation of the active component. All active components shall be programmed for a load of 40 Amperes. The ready boards shall comply with NRS 019. The boards shall be pre-wired and shall consist of 1 x 20 A QA-1(13), 6kA Curve 3 Circuit Breaker, 1 x 63 A QA17C Earth Leakage, 2 x 20 A Plug Circuit Breakers, 1 x 10 A Lighting Circuit Breaker, 3 x 15 A Plug Sockets, 1 x 6A Euro socket and 1 x Bulkhead Fitting with a 15-Watt globe.

**PS 5.2.10 WOODEN POLES**

Wooden poles shall comply with SABS 753.

The poles shall be 9 m in length and shall have 140 mm Ø to 160 mm Ø tops. The poles shall be planted at a depth of 1,5 m. The backfilling shall be in layers, not exceeding 300 mm and each layer shall be suitably compacted before adding the following layer.

**PS 6 DETAILS OF CONTRACT**

**PS 6.1.1 WORK TO BE EXECUTED BY OTHERS**

All work to be carried out by the Electrical Contractor. The contractor will submit a work program/schedule to the engineer 2 weeks after date of appointment.

**PS 6.2 22/11 kV OVERHEAD POWER LINE**

**PS 6.2.1 CONSTRUCTION NOTES**

**Use of Hardware with Copper Conductor**

Care must be taken to avoid use of aluminum hardware in direct contact or immediately below copper conductor due to the corrosive effects of copper salts on aluminum. Copper / aluminum bi-metallic or galvanized malleable iron components should be used.

**Back staying of strain structures during stringing**

Any structure which has a design angle of less than 40 degrees must be temporarily back stayed during stringing. The temporary stays are to be removed once the next section of the line from that structure has been strung.

**Conductor stringing**

Tension-stringing is to be used in order to avoid contact of the conductor with the ground. The conductors (which are generally greased) will be damaged if they are dragged along the ground during installation. Contamination with grit from the ground will cause eventual damage during the life of the conductor. The conductor is to be supported on pulleys during running out and tensioning.

**Compaction of foundation backfill**

Soil used for backfilling should be clean without any vegetation, etc. Clayey soil is not suitable. If the excavated soil is not suitable then soil should be imported to site. Compaction should be done in layers no more than 25 cm thick.

**Care and handling of insulators**

The power line insulators and the stay insulators are probably the most mistreated items on the bill of materials. This is particularly so for the silicone-rubber insulators which, because they appear to be unbreakable, are subject to severe mishandling and (generally unnoticed) damage. Damage to ceramic insulators is less frequent and generally can be seen as chipping and breakage of insulator skirts.

The general rule for all insulators is for them to be kept in their packaging until they are about to be installed. They should be transported in their packaging to the structure where they are to be installed and only then installed directly from their packaging.

Insulators must never be placed on bare ground; particularly for silicone rubber insulators as this will roughen, distort or tear the skirts. Ceramic insulators should never be laid on their sides on bare ground. If the insulators have been removed from their packaging they can be placed on a smooth surface (e.g. a clean board or thick blanket or some sort). The silicone insulators are light enough for a carrying rack (e.g. holding 6) can be made and used for transport to site.

Insulators of any kind must NEVER be place loose on the back of a vehicle!

The following standards / specifications will apply to the long rod insulators:

1. Socket and ball fittings : IEC 60120 – 16
2. Nominal voltage : 22 kV
3. Wet flashover voltage : 50 kV
4. Basic insulation level (BIL) : 170kV
5. Creep age distance : 480mm (20mm/kV)
6. Minimal failing load : 40kN
7. Reference drawings : Eskom D-DT-3042 (latest revision)

**Jumper insulators**

As a general rule on a single-circuit line the jumper insulators are placed on the inside of the angle so that the jumper length is as short as possible and adequate clearances are maintained.

The following standards / specifications will apply to the line post insulators:

1. Socket and ball fittings : IEC 61952; IEC 6119; IEC60815
2. Nominal voltage : 22 kV
3. Wet flashover voltage : 50 kV
4. Basic insulation level (BIL) : 170kV
5. Creep age distance : 744mm (31mm/kV)
6. Minimal failing load : 10kN
7. Reference drawings : Eskom D-DT-3017 (latest revision)

**PS 6.2.2 22/11 kV OVERHEAD FEEDER**

The Tenderer shall supply and install the material and equipment for electrification project(s) in the greater Kouga Municipal Area.

The construction of the overhead line shall comply with Particular Specification PAA, (Overhead Power Lines). Structures will be specified by the engineer and drawings provided based on Eskom standard high voltage wooden pole structures.

The line route and pole positions are approximate. Pegs indicating the pole positions and line route will be provided by a surveyor appointed by the Tenderer.

All hardware shall be hot dip galvanized to SANS 121:2000.

Poles are to be drilled mainly to ensure proper compaction. Hand excavation will be by express

permission form the engineer.

**PS 7 CONSTRUCTION PROGRAMME:**

The successful Tenderer shall be appointed as soon as possible after the tender closing date.

The Contractor shall provide a programme before entering the Contract Agreement with the Client.

**PS 8 PROJECT BOARD:**

A project board is required for the project.

**PS 9 SITE FACILITIES AVAILABLE:**

Site facilities and services required by the Contractor shall be negotiated directly with the Local Authority.

**PS 10 SITE FACILITIES REQUIRED:**

A site office is required for this project.

**PS 11 ITEMS REQUIRING SPECIAL ATTENTION:**

As the work progresses, the Contractor shall keep an accurate record of any variation or deviation from the original Drawings provided by the Engineer. The actual position of all equipment as installed on site shall be noted on the Drawings. The completion certificate will not be issued unless the "As Built" Drawings have been submitted to the Engineer, after approval by the representative of the Employer on site.

**PS 12 STANDARDISED AND PARTICULAR SPECIFICATIONS**:

The following specifications form part of the contract but are not included in this document:

SANS 1200 A : GENERAL

SANS 1200 C : SITE CLEARANCE

SANS 1200 DA : GROUND WORKS

SANS 1200 DB : EARTHWORKS, (PIPE TRENCHES)

SANS 1200 GA : CONCRETE

SANS 1200 LC : CABLE DUCTS

# C3.3 PARTICULAR SPECIFICATIONS

The following particular specifications must be adhered to:

INDEX

#### Particular Specification PAF : General Quality & Technical Specs.

#### Particular Specification PA : Miniature Substations

#### Particular Specification PAB : LV Insulated Bundle Conductor

#### Particular Specification PAA : Medium Voltage Overhead Power Lines

#### Particular Specification PXB : Trenches & Excavations

#### Particular Specification PI : Installation of Underground Cables

#### Particular Specification PTC : Power Transformers

#### Particular Specification PE : Earthing

PAF

### PAF: GENERAL QUALITY & TECHNICAL SPECIFICATIONS

1. GENERAL

This part relates to the Quality and Technical Specification for equipment, material and work to be supplied and installed.

The other Particular Specification shall be read in conjunction with this Specification.

Where trade names and trademarks are mentioned, it relates to type and quality of manufacture, but does not exclude equal and similar products of other manufacturers.

1. QUALITY AND STANDARDS

All material and equipment supplied and installed under this Contract shall be new and the best of their respective kinds. Workmanship shall be of the highest standard through-out and to the satisfaction of the Engineer and must comply with the Occupational Health and Safety Act (Act 85/1993)

All equipment or plant whether electrical or mechanical shall be erected and installed in strict accordance with these specifications and/or relevant SANS or NRS or BS or IEC Specifications and/or with the manufacturer’s installation and testing instructions.

All material and equipment shall comply with the requirements laid down in the latest editions and/or amendments of the relevant SANS, NRS, BS and IEC Specifications. Material with the SANS mark will receive preference.

All materials shall, where applicable, comply with the following specifications and amendments except where otherwise specified:

TOPIC DOCUMENT

Aerial Bundle Conductor SANS 1418, Parts 1 to 3, DTS 015 (NRS 018)

Arrestor – Surge BS EN 60099-1

Bolts and Nuts SANS 1700

Bolts, Eye SANS 1700

Bus bar SANS 1195 & BS 159

Bushings SANS 60137 & BS 223

CNE SABS 1268:1979, NRS 016:1991

Cables, installation of electric SANS 10198: Part 1-14

Cables, low voltage SANS 1057: Part 2-6

Cables, medium voltage SANS 97 & NRS 013:1991

Cable (house service split concentric) DTS 0084 (NRS 017)

Cable Glands SANS 808

Cable Ties DTS 0086 (NRS 020)

Cables, XLPE SANS 1339 & IEC 502

Paper SANS 97

Insulated Electric PVC

& Flexible Cords SANS 1574

Clamps (strain for split concentric) NRS 018

(Suspension ……………….) NRS 018

Clamps Strain SANS 61284:1997

Clevis Tongue Adaptor (twisted) SANS 61284:1997

Clips for Wiring

Circuit Breakers, Molded Case SANS 156

Circuit Breakers, Oil BS 116 & IEC 56

Circuit Breakers, HV Alternating IEC 60056

Coatings, Anodiac on Aluminium BS 1615

Conductors, Aluminium SANS 182, Part 2

Conductors, Aluminium with Steel Reinforcing SANS 182, Part 3

Contactors BS 775

Enamel, High Glass SANS 630

Earth Spikes SANS 1063

Filling Compounds SANS 317

Fuses BS 88

Insulating SANS 317

Insulators SANS 60168, SANS 60273, SANS 60305,

SANS 60383, SANS 60471, SANS 60720

Instruments BS 89

Insulators, High Voltage Post BS 3297

Luminaires, Floodlighting SANS 475

Luminaires, Street lighting SANS 10098

Meters, Electricity BS 37 & IEC 43

-Prepayment NRS 009

Overhead Power Lines SANS 61284

Overhead Lines SAIEE Code of Practice

Poles SANS 753

Pole Top Service Box NRS 032

Ready Boards NRS 019

Relays, Electrical Protective BS 142

Substations, Miniature SANS 1029

Switchgear BS 162 & IEC 62271

Switchgear, HV Metal enclosed & Control Gear IEC 62271

Transformers, LV Insulting SANS 780

Transformers, LV small SANS 780

Transformers, self-protecting NRS 027

Transformer, Power SANS 780, BS 171 & IEC 60076

Transformers SANS 780

Transformers, Current BS 3938

Transformers, Voltage BS 3938

Testing Techniques, High Voltage IEC 60

Zinc Coatings, Hot Dip (galvanized) SANS 14713

Zinc Spraying BS 2569

1. TESTING
2. Tests on completion shall be carried out on site in the presence of the Engineer and the test results properly recorded and submitted in triplicate.
3. On each completed section of laid and joined cable, the insulated resistance shall be tested to approval, with an Approved type instrument of not less than 5000 Volts for MV and 1000 Volts for LV cables. LV has reference to 1000 Volts and less while MV has reference to more than 1000 Volts.
4. On each completed section of laid and jointed H.T. cable a high voltage test shall be carried out. The test shall be performed in the same manner as that described in Clause 8-3 of SANS 97, but alternating or direct current may be used at the following voltage values:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CABLE VOLTAGE RATING (volts)** | **CABLE TEST VOLTAGE (VOLTS)** | | | |
| **Between Conductors** | | **Conductors to Sheath** | |
| **AC** | **DC** | **AC** | **DC** |
| 22 000 | 38 000 | 50 000 | 25 000 | 30 000 |
| 11 000 | 20 000 | 30 000 | 11 500 | 17 500 |
| 600 / 1000 | 2 000 | 3 000 | 2 000 | 3 000 |

All MV and LV Switchboards shall be tested to approval after erection and installation on site, using the applicable test voltage and instruments.

NOTE: Direct current tests should NOT be applied on XLPE cables. All cables shall be discharged immediately after each and every test.

1. SETTING OF PROTECTIVE DEVICES

All protective devices throughout shall be correctly set by the Contractor to the approval of the Engineer before any circuit is energized and the Contractor is required to obtain all necessary data for ensuring the correctness of the settings.

1. INSPECT SITE

The Tenderer shall visit the site of the Works and satisfy himself as to the circumstances and conditions under which the Work has to be done, the nature of the material to be excavated and all matters which may in any way influence his tender, as no claims related to the above will be considered after allocation of the Contract.

1. ACCOMMODATION OF TRAFFIC

During the period of construction and maintenance the Contractor shall ensure that access to premises is maintained safely at all times and that traffic on public roads is accommodated without inconvenience. He shall provide the necessary temporary works to this end including all barricade signs, lights etc. to the satisfaction of the Engineer.

Minimum clear ways shall be 1,00 meter for pedestrians and 3,40 meters for vehicles.

The Contractor shall provide and maintain any temporary fencing necessary for the protection of the Works and the public, also temporary bridges, crossings etc. for all streets, driveways or footways intersected by the Works. Temporary crossings for footways shall be composed of stout timber and shall be not less than 1 meter wide and shall be fenced adequately on both sides.

The Contractor will be held responsible for any damage or accident to persons or property due to the inadequacy of any protective measure mentioned in this clause or in the Conditions of Contract.

1. PROTECTION OF PROPERTY PEGS

The Contractor shall execute all possible care not to disturb land survey pegs. Any land survey pegs found to be missing shall be brought to the attention of the Engineer and shall be recorded, once work has been handed back at the completion of the Contract, all pegs found to be disturbed will be replaced by an approved Land Surveyor at the cost of the Contractor.

1. EXISTING SERVICES

The Contractor shall make himself acquainted with the position of all existing services such as storm water drains, water mains and connections, electric cables, telephone cables, electricity or telephone poles, water meter and stopcock boxes etc. before any excavation is started and should include in his prices for proper protection thereof.

Should any of these be damaged or interfered with, either during the progress of the Works or during the period of maintenance, the Contractor shall at once notify the Department or persons affected by such damage or interference, so as to enable the necessary repairs to be carried out in accordance with the regulations of such department. The cost of any such repairs shall be borne by the Contractor or may be deducted from any money due to him under this Contract. Where, in the opinion of the Engineer, it is impossible to carry out the new work without interference with any of these services, the cost of restoration and repair will be paid by the Client.

1. DUST AND NOISE

The Contractor shall take all necessary precaution to control dust and noise.

1. SPOIL

Excavated material deposited on the sides of trenches shall be kept trimmed up as closely as possible to the trench so as to cause the least possible obstruction to traffic.

In depositing spoil, care must be taken not to damage adjoining fences or buildings and care must be taken that a free waterway in gutters or otherwise is maintained as far as possible.

Should any claims arise out of damage to or flooding of private or public property or completed construction works, due to the careless deposition of spoil, the Contractor must settle same and repair any damage at his/her own expense.

1. OBSTRUCTION OF FOOTPATHS AND CARRIAGEWAYS

The Contractor shall not deposit earth, rubbish or other materials of any kind so as to hinder, unnecessarily obstruct or annoy any person using or wishing to use the footpaths or carriageways. Free access to all properties and works must be maintained at all times. The Engineer reserves the right to have any obstructing deposits removed by the Contractor.

The Contractor must obtain the consent of the Council in writing before closing any made road or vehicular traffic and in any case a footway must be kept clear.

1. RUBBISH AND CLEANING OF SITE ON COMPLETION

The Contractor shall keep the site and surroundings free from rubbish, clearing from time to time as required and shall clear away all plant and surplus material within fourteen days from the completion of the Work, failing which, the Engineer shall have the power to have the site cleared, deducting the cost from any monies due to the Contractor.

Walls and fences etc. shall be repaired and thoroughly cleared and renovated where affected by the Work.

1. CLIENT MAY EXECUTE OTHER WORKS OR URGENT REPAIRS

The Client or any other appointed by it may execute and carry out any other work in the area of this Contract and the Contractor shall afford all reasonable facilities for so doing, but he will not be held responsible for loss of time should such work impede him in his progress. The time so lost shall be allowed over and above the time stipulated for the completion of the Works provided that the Contractor shall make a claim to be allowed such extra time at the time the impediment or interruption exists and the Engineer is satisfied that such works are really retarding him in his progress, but beyond allowing time, the Municipality will not be liable for any other claim that may be made in respect of this Clause.

In the event of any accident to property which demands immediate attention during the absence of the Contractor or his men or should the Contractor neglect or fail to execute any necessary repairs, the Engineer may have the work done and deduct the cost of same from monies due to the Contractor.

1. WATER IN TRECHES

The Contractor shall keep the trenches free from water during the progress of the Works, doing sub-draining, pumping, bailing out, excavating for and diverting any water as may be required. Cables etc. shall be laid within two weeks from date of trenching and all trenches shall be completely re-instated within this period, to ensure that damage due to possible floods will be kept to a minimum.

1. BARRICADING, WATCHING AND LIGHTING

The Contractor shall employ competent watchmen and guard the Works both day and night and shall fence, barricade and protect all parts of the Work in such a manner as to provide adequately for the safety of the public or property.

When a road or street is partly closed to traffic, notice boards shall be placed at the ends and on both sides of the Work to warn the public.

1. LATRINES

The Contractor must provide, maintain, move to positions required and finally remove proper latrines. Latrines shall be properly secluded from public observation and their use shall be strictly enforced.

The Contractor shall arrange for removals when necessary and pay all charges in connection with same. The number of latrines to be provided shall be based on the requirements of one latrine to every fifteen persons.

1. COMMENCEMENT AND ORDER OF WORK

The Contractor, on receiving written order from the Engineer to proceed with the Work, shall arrange to do so within seven days from the date of such order and will be required to commence the Works in one or more places at such points as the Engineer may direct and shall keep each section continually in progress until completed.

1. MEASURING UP WORK FOR MONTHLY OR FINAL CERTIFICATES

In accordance with the General Conditions of Contract, the Contract shall furnish the Engineer with a detailed statement at the end of each month showing the Work executed by him during the month and details of all extra work performed and also a final account on completion of the Work.

For the purpose of preparing his statement the Contractor shall in conjunction with the Engineer or his representative measure up the Work carried out, care being taken that no work or materials are covered up either in whole or in part before the quantity of such work or material to be charged for has been duly certified as correct by the Engineer or his representative. The above specifically refers to cable joints, cable tees, etc.

The Contractor will be required to give all assistance and provide the necessary labour for measuring up the Work. The Work executed will be paid for according to the rates submitted in the Schedule of Quantities and adjusted where necessary in accordance with Clause 2.02.

1. CLIENT’S EQUIPMENT

The use or hire of Client’s equipment for transport, cable laying or the erection of street lighting equipment will not be permitted.

The Contractor shall provide all ladders, tower ladders, cable rollers and cable drum trailers required for the execution of the Contract.

1. SHEDS

The Contractor shall supply on site, his own shed for the use of his men and/or materials. The Contractor shall place offices, camps, sheds and plant only on sites approved by the Engineer.

If the Contractors land belong to the Client, he shall keep it clean and on completion of the Work, shall leave the area restored to the satisfaction of the Engineer. This applies particularly to concrete floors and bases which shall be broken up and disposed of to the satisfaction of the Engineer.

1. PROJECT NAME BOARD

The Contractor shall supply and erect in position where directed, within two months from date of appointment as Contractor, a strongly made municipal name board conforming to the design approved by the South African Association of Consulting Engineers.

PA

### PA: MINIATURE SUBSTATIONS

1. COMPLIANCE WITH SPECIFICATIONS
   1. Miniature substations shall in all aspects comply with the requirements of NRS 004, SANS 1029:2016. Miniature substations shall be equipped according to the requirements of the Project Specification.
   2. Except where otherwise specified, the miniature substations, its auxiliaries and fittings shall comply with the following specifications and amendments:

Hot dip galvanizing : SANS 763 / SANS 121:2000

Transformers : SANS 780

Current transformers : BS 3938

Voltage transformers : BS 3941

High voltage fuses : BS 2692 I & II

Bus bars : BS 159 & SANS 1195

Cable Boxes : BS 2562

Colours & Markings : BS 381/C & SABS 1091

Transformers’ oil : SANS 555

Moulded case circuit breakers : SANS 156

Miniature substations : NRS 004, SABS 1029 & SANS 1029

Metal clad switchgear : SANS 1885

* 1. Any departure from the requirements of these specifications shall be specifically stated in the tender otherwise it will be assumed to comply with specifications and if found to be otherwise, the units will be replaced for the Contractor’s account including consequential losses.

1. DESIGN AND CONSTRUCTION
   1. The miniature substations shall be designed to facilitate inspection, cleaning and repairs. All apparatus supplied shall be designed to ensure satisfactory, continuous operation and all materials used shall be suitable for working under humid coastal atmospheric conditions and under such variations of load and voltage as may be met with under working conditions, including those due to short circuits.
   2. All materials used in the miniature substations shall be new and of best quality.
   3. Compartments: The miniature substations shall generally consist of three (3) separate compartments. The whole design, which includes the roof and shall be manufactured from 3 mm mild steel plates.

NB: These plates and all other mild steel must be heavy duty galvanized to SANS 763 as amended to date.

* 1. Doors: Each switch compartment shall be provided with separate door/s. The door catches shall be of the three point link locking mechanism type (Barker Nelson). The complete mechanism, including the door handles shall be manufactured from brass or stainless steel. Handles shall be pad lockable. Each door shall be fitted with three heavy duty all brass or stainless steel solid hinges, having measurements not less than 60 mm wide and 6 mm thick and not less than 10 mm diameter hinge pin. All doors shall be provided with braces to prevent the door from opening beyond 110 degrees and a device to secure the door in the open position. Drain holes shall be provided in the bottom flange of the doors.
  2. The miniature substations shall be designed for mounting on a concrete or built up base, having all incoming and outgoing cables buried underground.
  3. Cubicles shall be sufficiently ventilated and shall be constructed in such a way as to prevent the ingress of rain or moisture.
  4. The transformer compartment shall be designed so that removal and replacement by another rating unit can be easily undertaken.
  5. The substations shall be provided with approved lifting lugs so that the entire unit can be lifted without any deforming or damage to any part of the substations.
  6. All bolts, nuts and studs shall be of brass or stainless steel. All bolts shall be fitted with locking washers. Cadmium plated or galvanized bolts will not be permitted.

1. EARTHING BETWEEN COMPARTMENTS
   1. Bolts: Brass earth bolts shall be provided in the HV and LV compartments and through the gland plates. Bolts shall be a minimum of M10, complete with nuts, washers and a lock washer.
   2. Earth Bar: A copper earth bar with a minimum csa of 100 mm² and at least 150 mm long, shall be installed in the LV compartment.
   3. Earth Connections: An earthing connection in the form of a copper strap 25,4 mm by 3.2 mm bonding all the compartments, shall be provided. The earth strap shall have provisions for connections from all cable sheaths and earth electrodes. Earth conductors between earth bolts, earth bar and the neutral bus bar shall be 70 mm stranded copper conductor, lugged at either end. The connection between the neutral bus bar and the earth bar shall be easily removable for the purpose of testing.
2. SAFETY
   1. The design shall incorporate every reasonable precaution and make provision for the safety of all concerned in the operation and maintenance of the miniature substations and the associated cables.
   2. All apparatus shall be designed to obviate the risk of accidental short circuits due to birds, animals, insects or vermin.
3. CLEANING, PAINTING AND HOT DIP GALVANIZING
   1. All sheet steel work and all surfaces of metal parts or all apparatus shall be thoroughly cleaned by shot blasting to remove all dirt, oil, grease, mill scales, moisture and other contaminants and give a dry, bright, metallic surface.
   2. The miniature substations shall be hot dipped galvanized in accordance with SANS 763 standard, and no welding, drilling, punching, bending or removal of burrs, etc. shall be carried out after galvanizing.
   3. The equipment shall be fully painted and protected after manufacture so that no further painting will be required after erection.
   4. Complete painting specification as proposed by the manufacturer for the individual items of equipment shall be stated. Immediately thereafter, it shall be treated in accordance with the requirements of SANS 780 for transformers.
   5. The finished colour shall be C12 ‘Avocado’ to SANS 1091 unless otherwise stated in the Project Specification.
4. MV COMPARTMENT

The MV Compartment shall contain the following:

* 1. Cables end boxes: Two MV cable end boxes suitable for 3 core 35 mm2 up to 120 mm² copper PILCDSTA cables, complete with glands.

The cable boxes shall be of approved design and so arranged to accommodate all the cable joint fittings required by the manufacturer of the cables.

Cable boxes shall be suitable for air type terminations and shall be provided with a single unit brass wiping gland.

The cable boxes shall not be constructed of cast iron.

The Cable boxes are to be suitable for vertical panel mounting and all boxes are to be in accordance with BS 542 where applicable.

* 1. Switchgear: The switchgear shall be of the fused Ring Main type of which the tank shall be vacuum securely mounted on a steel frame, which has the same anti-rust treatment as under Clause 5. The thank shall be so constructed as to exclude the possibility of any oil leaks, or ingress of moisture to the internal parts of the switchgear of fuses. The tank shall have an oil level indicator and a drain cock.

The isolators shall be quick acting, spring loaded for making and breaking, suitable for on load operation and shall be capable of withstanding a fault level of 350 MVA. Mechanism shall be provided to show whether the isolator is ON/OFF/CABLE EARTHED.

The operating mechanism shall be of the free handle type. It shall be so arranged, that when striker pin fuses are fitted, the operation of a fuse in anyone phase shall trip all the phases simultaneously. Conversely if one fuse is blown then it shall not be possible to close the isolator contacts.

Fuses may only be replaced if the isolator is in the “OFF” position.

Fuse ratings shall match the transformer rating. The fused switch shall be supplied complete with insulating medium and fuses. If specified in the Project Specification, spare fuses shall be supplied and mounted in clip holders in the MV compartment.

* 1. Earth Fault Relays: If Earth fault indication relays are called for in the Project Specification, they shall be installed on the position as indicated on the Drawings. Earth fault indication relays shall be installed complete with transformers and wiring. The relay type shall be submitted to the Engineer for approval prior to installation. The relays shall be equipped with manual or automatic resetting flags. Note that the cable gland beneath which the earth fault indication relay is to be installed, must be insulated to ensure proper operation.

1. TRANSFORMERS
   1. The transformers shall be of the double-wound three phase oil immersed core type with copper windings arranged for natural oil cooling (first filling of oil is required) manufactured, rated and tested in accordance with SANS 780 as amended to date.
   2. The normal frequency of the system will be 50 Hz, but the transformer shall be designed for operation at any frequency within ± 2 % of normal and with ± 5 % voltage variation without exceeding the temperature rise specified in SANS 780, when the frequency and voltage variations are not in opposite directions.
   3. Each transformer shall be provided with constant voltage tappings in the centre of the primary winding to give a variation of ± 5 % of the normal voltage at no-load and an external operating handle arranged for locking in position and fitted with a top position indicator for the gang operated tap changing mechanism.
   4. All insulation materials shall be free from substances likely to become soft or to contaminate the oil in the transformer during its life and each portion of the windings shall be impregnated before assembly and if varnished it shall be adequately dried before assembly or immersion in oil.
   5. The transformer tank and cooling tubes if not galvanized must be zinc sprayed and painted as per Clause 5 above.
   6. The transformers shall be specifically guaranteed free from objectionable humming and shall be radio and TV interference free.
   7. The oil supplied shall comply with SANS 555.
   8. The following requirements are applicable to the transformers and the schedule below must be completed otherwise the tender may not be accepted:

kVA rating : As per Project Specification

Number of phases : 3

Frequency : 50 HZ

Ratio : As per Project Specification

Primary connections : DELTA

Secondary connections : STAR

Vector diagram : DYN 11

Primary terminal arrangement : 3 x MV bushing

Secondary terminal arrangement : 4 bushings connected to LV bus bars

Cooling : ONAN

Core loss (normal voltage) (watts) : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Copper loss (full load 1.0 PF) (watts) : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Regulation @ 1.0 PF (%) : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Regulation @ 0.8 PF (%) : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Efficiency @ 1.0 PF full load (%) : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Efficiency @ 1.0 PF ½ load (%) : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Efficiency @ 1.0 PF ¼ load (%) : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transformer total mass kg : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Miniature Substations total mass kg : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SIGNED BY TENDERER DATE

1. LV COMPARTMENT

The LV Compartment shall contain the following:

* 1. The LV Frame shall be manufactured from 3CR12 and suitably painted.
  2. Bus bars: A set of suitably rated bus bars, 3 phases and neutral, connected to the LV side of the transformer, of which the bus bars shall be mounted behind the front panel. Bus bars shall be predrilled and tinplated. The rating of the bus bars shall be according to the Project Specification or a minimum of 800 A, suitable for 15 kA fault level.
  3. Main Circuit Breaker: A on-load incoming isolator or circuit breaker must be provided. The rating of the isolator or circuit breaker shall be as per Project Specifications.
  4. Instrumentations: Three 96 mm x 96 mm combined maximum demand / instantaneous indication ammeters (one per phase), complete with current transformers (15VA Class 1), shall be supplied.

Meters shall be connected to the lower CT ratio. Meter scales shall make provision for both CT ratios and shall be calibrated for a 20 % over scale reading.

If called for in the Project Specification or on the drawings, one 96 mm x 96 mm voltmeter, complete with HRC fuses and selector switch, shall be provided. The selector switch shall enable readings of all phase-to-phase voltages as well as all phase-to-neutral voltages and shall have a “OFF” position.

* 1. Triple pole circuit breakers shall be provided as per Project Specification. Where spare positions are indicated for circuit breakers in the Project Specification or on drawings complete mounting facilities shall be provided.
  2. Street lighting equipment, if required in the Project Specification shall be installed as follows:

Fuse Switch: If called for in the Project Specification or on the drawings, a 63 A HRC fuse switch complete with 63 A cartridge fuses shall be installed as main switch for street lighting equipment. Alternatively a set of 63 A HRC cartridge type fuses with holders may be specified kWh Meter: If called for in the Project Specification or on the drawings, a three phase kWh meter shall be installed to measure the total energy that is consumed by the street lighting.

Street Lighting Control Equipment: Street lighting control equipment shall be supplied and installed as per the Project Specification and drawings. Contactors shall have 230 V AC coils and contact ratings as specified. The contactor coil shall be protected by a 6 A HRC fuse. Street lighting cables shall be protected by 5 kA single pole circuit breakers. A three position bypass switch shall be provided. This switch shall be arranged to isolate the street lighting control equipment, select photo-cell control or switch the contactors on.

Photo-cell: Photo-cells shall be designed for an operating voltage of 230 V ac. Contacts shall be rated to switch 6 A AC. The photo-cell contacts shall make when the light level drops to 25 – 35 lux and break when the light level reaches 65 – 75 lux. A built-in time delay shall be provided to prevent operation of the switch during short periods of high light intensity as will be caused by the headlights of a passing vehicle. The photo-cell shall fail to the switched on position to enable easy identification of faulty units. Where a phot-cell forms part of a miniature substations, it shall be positioned at the back of the miniature substation in a protected, translucent enclosure. The connection between the phot-cell and the street lighting control equipment shall be wired in 1,5 mm2 PVC insulated conductors.

* 1. Cover Plate: All equipment in the low tension compartment shall be flush mounted behind removable cover plates. Openings in the plate for future equipment shall be covered with individually removable blank-off plates. The cover plates and removable blanking-off plates shall be manufactured of stainless steel, 3CR12 steel or galvanized mild steel and have a white enamel finish.
  2. Cable Gland Plates: Cable gland plates shall be manufactured of 3 mm stainless steel. Holes for the cable glands shall be drilled according to the cable sizes listed in the Project Specification and drawings. If single core cables are specified the plate shall be manufactured of a non-ferrous material such as aluminium or brass. The minimum thickness of the material shall eb 4 mm. If Tufnol is used, the minimum thickness shall be 6 mm.
  3. A 15 A industrial plug outlet with a 15 A MCB 10 kA earth leakage relay must be provided.

1. LABELS AND PLATES
   1. All labels for mounting on outdoor equipment shall be of an approved non-corrosive material and shall be fixed with stainless steel screws.
   2. “DANGER” plates shall have red lettering on a white background. All labels and so all the designations shall comply with the Occupational Health and Safety Act (Act 85 of 1993) as amended to date.
   3. The high voltage compartment door/s shall be provided with a “DANGER HIGH VOLTAGE” label with letters not less than 40 mm high.
   4. The doors providing access to the high and low voltage sides of the miniature substations shall be clearly and indelibly marked on the inside HV and LV respectively.
   5. Substations Identification Label: Each miniature substation shall be provided with an identification label positioned on the outside, in the centre, on the street side. Wording will be according to the Project Specification and drawings. The label shall be of 3 mm thick aluminium with black or red 40 mm high engraved lettering. The label shall be oven baked after application of the paint to the engraved lettering. Non-corroding pop rivets shall be used to fasten the label.
2. VOLTAGE IDENTIFICATION

All transformers with 11 kV primary voltage shall have the words “PRIMARY VOLTAGE 11000 V” painted clearly and prominently on the tank near the HV bushings and similarly for other primary voltages.

1. MINIATURE SUBSTATIONS BASE
   1. The miniature substations are to be provided with and built onto a base of dimensions suitable for accommodating the size of the model supplied, as detailed on the manufacturers drawing or as listed in the Schedule Quantities.
   2. Concrete Bases:

Dimensions: Concrete bases for miniature substations shall be cast in situ. The base shall protrude 150 mm above the finished ground level.

* 1. Brick Built Bases:

Excavate to a depth of 1000 mm below natural ground level and cast a level foundation slab of 150 mm thick, to the dimensions required.

Where the natural ground level is sloping, the excavation shall be 1000 mm below the lowest point of the base required.

Where clay subsoil is encountered, special measures shall be taken as detailed by the Engineer. The concrete shall be a 1.3.6 mix using 38 mm stone to give a strength of 21 MPa at 30 days.

Using hard burned bricks, onto this slab a 220 mm perimeter wall (see ‘j’ below) which is exactly 220 mm longer than and 220 mm wider than the overall base dimension of the mini-substations.

Provide two 110 mm walls so placed as to separate the low and high voltage sections of the substations. Dividing walls to be interlocked into outer walls.

Through the two outer walls, as well as each of the dividing walls, provide an approximate opening of 500 mm wide x 500 mm high suitable for the entry of cables. Openings to start at slab level.

1. INSPECTION

If required by the Engineer one prototype miniature substation shall be manufactured after approval of the drawings. The Engineer will inspect the prototype in the presence of the Contractor. The Contractor shall be responsible to ensure that further substations are manufactured in accordance with the approved or altered prototype. Two weeks’ notice must be given to the Engineer prior to any inspection.

1. DRAWINGS

Before manufacture, specifications and drawings indicating the following information shall be submitted for approval:

Outline and General arrangement drawing,

LV Schematic wiring diagram,

LV Layout diagram,

The type of ring main unit offered,

Specification of treatment and finish of the following surfaces:

- Enclosure

- Transformer tank

- LV compartment frame and cover plates

PAB

### PAB: LV INSULATED AERIAL BUNDLE CONDUCTORS 600/1000 VOLT

1. GENERAL
2. This specification has reference to 600/1000 volt insulated aluminium cored aerial or bundled conductors suitable for overhead outdoor reticulation systems.
3. Installation shall be generally in accordance with the latest edition of the SANS 10142-1 Code of Practice for the Wiring of Premises hereafter called the “Wiring Code”.
4. Additional requirements and clearances above ground and to buildings shall be as detailed in the Occupational Health and Safety Act of 1993, as amended to date, hereafter called the Act.
5. COMPLIANCE
6. Imported components shall bear the Electricité de France reference number.
7. Where components are manufactured to a French National Standard the importer shall provide a certificate of compliance with the EDF specification.
8. Locally manufactured components, made under license to the EDF or French National Specification, must also be provided with a SANS Certificate of Compliance Costs involved for certificates of compliance shall be borne by the importer / manufacturer.
9. APPROVAL
10. Only products which have been approved by SANS, and
11. Authorized in terms of the Act.
12. Written proof of the above approvals shall be submitted by the successful tenderer, on request of the Engineer.
13. Where these approvals are not received when requested, the Engineer reserves the right to reject the product supplied and the Contractor shall then purchase the products specified by the Engineer, at no extra cost to this Office, including time delay or consequential loss.
14. THE CABLE
15. The cable shall be designed and suitable for suspension on wooden poles.
16. The cable shall consist of a central neutral conductor with the phase and lighting conductors laid around it.
17. There shall be no overall outer sheath.
18. The typical symbols shown below, when used in the Schedule of Quantities, shall indicate size and quantity of conductors.

3 x 95 mm2 + N + 16 mm2 shall mean 3 phase conductors of 95 mm2 plus neutral and one lighting conductor of 16 mm2.

1. The laying pitch shall be loose enough to allow easy separation of conductors for making of connections but sufficiently secure to maintain bundle cohesion at bends or angles.
2. THE INSULATION
3. The insulation shall be rated for 1000 Volt nominal.
4. The Engineer may request a manufacturing insulation resistance test certificate. This information shall be supplied free of charge to this Office by the tenderer, on request.
5. Insulation shall be black UV treated weather resistant cross linked polyethylene (XLPE) to minimum thicknesses shown in Table 2.
6. PHASE CONDUCTROS
7. The phase conductor shall consist of stranded hard drawn aluminium wires to form a core of circular cross sections with a flexibility rating of Class 2.
8. The insulation shall be black UV weather resistant XLPE of minimum thicknesses shown in Table 2.
9. The insulation shall be easily removed from the core. If a separator is used, then it must be brightly coloured in order to ensure its removal when making connections.
10. Each phase conductor shall be clearly marked during the manufacture so that each phase can be easily identified. Markings shall be at least every 50 m or at closer intervals with letters approximately 7 mm high by 2,5 mm wide.
11. Table 2 shows the approximate physical and electrical characteristics of the products required and contractors shall state variances in excess of 10 % of the above. Where variances are not stated the cable will be taken to comply and if found not to meet the specification the contractor will be required to replace same at his own cost.
12. The breaking load of the phase conductor shall be approximately 130 to 140 MPa.
13. NEUTRAL CARRIER
14. The neutral conductor shall have a minimum cross sectional area of 54,6 mm2 irrespective of phase conductor size.
15. This conductor shall consist of a minimum of 7 wired of 3.15 diameter of aluminium alloy, twisted to form a circular conductor.
16. This conductor shall be appropriately sized for larger phase conductors.
17. The insulation shall be black UV weather resistant XLPE of a minimum thickness of 1,6 mm.
18. The insulation shall be easily removed from the core.
19. If a separator is used, then it must be brightly coloured in order to ensure its removal when making connections.
20. The neutral conductor shall be longitudinally ribbed in relief for the full length or otherwise be easily identifiable in the dark by suitably embossed or raised marking either continuously or at intervals of not more than 50 mm apart.
21. The neutral conductor shall comply with the physical and electrical characteristic as set out in Table 2.
22. LIGHTING CONDUCTOR/S
23. Shall be made of the same materials as the phase conductors.
24. Lighting conductors’ markings shall doffer form the phase markings so that no confusion can occur and these shall be at least 50 mm apart and the designation symbol shall be at least 7 mm high by 2,5 mm wide.
25. HARDWARE – GENERAL
26. The contractor shall ensure the compatibility of the hardware and the cable being supplied.
27. MOUNTING OF SUSPENSION BRACKET
28. The mounting bracket shall be made of cast aluminium alloy, so designed that a vertical load of 400 MPa will break the neck at the weak point.
29. The rear of the mounting bracket shall be curved to suit the wooden pole or have suitable pip or raised portions at the four corners to prevent movement of the bracket.
30. Securing of the mounting bracket to the pole shall be by means of 1 of 14 mm hex head galvanized steel bolt as well as at least one stainless steel strap of 0,7 mm minimum thickness x 20 mm wide.
31. The mounting bracket shall be so designed that accidental disconnection of the cable clamps cannot occur.
32. SUSPENSION CLAMP
33. The suspension clamp shall be made from polycarbonate reinforced glass fibre material to ensure double insulation of the carrier.
34. Thermoplastic or similar low grade materials will not be acceptable.
35. The suspension clamp shall have a self-latching clip to secure the neutral conductor.
36. Clamps shall be so designed that no damage occurs to neutral of phase conductors.
37. Suspension clamp must be suitable for a line displacement up to 30˚ from the pole, without a change hardware. If this is not possible, mention must be made of this at tender stage.
38. STRAIN OF MAIN LINE CLAMPS
39. Shall be in accordance with Section 11(a) to (e) above.
40. CONNECTORS – GENERAL
41. Where cables are connected, only joints making use of hydraulic crimper, may be used.
42. Where connections are made, only the manufacturers approved ferrules may be used, which must be approved aluminium to aluminium or other suitable ferrules or connections.
43. Under no circumstances will crosby clamps or similar general engineering items, be permitted for making connections.
44. CONNECTORS – BRANCH LINE
45. Overhead house and other service connections maximum allowable sag shall be in accordance with limits as specified.
46. CONNECTORS – BULK
47. All connections to the main overhead cables shall only be made at a pole.
48. The joints shall be below the normal cable level with the left-hand cable coming into the joint at the right-hand side and vice versa i.e. a complete circle for each joint thus giving sufficient slack in case of subsequent breakage.
49. WOODEN POLES
50. Wooden poles of 9 metres length shall be used.
51. The thickness of the poles may vary in size from 185 mm to 209 mm diameter at top of pole.
52. Only new wooden poles suitably treated with creosote or similar product, with a SANS mark shall be accepted.
53. All tops and bottoms of poles shall be bound with at least 3 strands of No. 10 galvanized wire or equal quality binding.
54. Where there are longitudinal cracks exceeding 2000 mm in length these shall be bound as in (d) above. Not more than 3 Bindings shall be permitted per pole.
55. The bottoms of the pole shall be at least 1500 mm below natural ground level.
56. Where there is danger of the natural ground being aerated, suitable precautions shall be taken.
57. Where, because of large slab or dolomite rock, the full depth of hole is not practical, a suitable hole shall be blasted or jack hammered into the rock, and the pole secured with concrete of 1.3.6 mix using 19 mm stone. Minimum depth of these holes shall be 1000 mm below normal ground level.
58. The base of the pole may not be cut off. The top of the pole shall be cut to maintain even height and the cut portion shall be suitable treated with 3 coats of creosote or similar equal quality product.

1. STAYS
2. All materials for stays shall be new galvanized material except as detailed in section 18(d)
3. A single angular stay wire shall be approximately 10,0 metres long minimum and shall be secured to the pole 7,5 metres above ground level.
4. Where, because of the size of aerial cable used, double stays are required, the one shall be secured at 7,0 metres from the ground and the other at 7,5 metres from the ground.
5. The angular stay wire shall be adequately prevented from slipping down the wooden pole by means of 1 off Aerated x 75 galvanized coach screw securely screwed into the pole.
6. A stay insulator will be required.
7. The stay wire shall be set at an angle of approximately 45 ˚ to the pole / ground.
8. The stay wire shall terminate at an approved starred assembly consisting of a 19 mm diameter galvanized stay rod, approximately 1,800 m long at a 450 x 450 x 6 mm thick galvanized steel base plate, securely anchored to the starred. The upper end of the starred assembly shall consist of an approved galvanized thimble securely threaded in position.
9. The stay wire shall consist of 7 strands of No. 8 galvanized wire suitably bound to form a neat concentric steel cable.
10. The use of crosby clamps or similar products will not be permitted.
11. Stays shall be placed at either end of an overhead line, as well as each change of direction of a line, as shown on the drawing.
12. SPECIAL STAYS
13. Where the normal angular stay cannot be fitted because it would be in a road reserve or interfere with an existing or future structure, an overhead flying stay shall be supplied and fitted.
14. The flying stay shall consist of an additional 9,3 metre by 160 mm to 185 mm wooden creosote pole buried to a minimum depth of 1500 mm below ground.
15. The star, starred assembly, securing etc. shall conform to the basic requirements applicable and as detailed under “stays”.
16. The flying stay shall consist of 7 off strands of No. 8 galvanized wire secured approximately 300 mm form the top of the poles respectively.
17. The flying stay shall be neatly twisted to ensure maximum strength and to ensure that both poles are plumb, with the star taut. The ends of the star shall bound as detailed in Section 17 (h).
18. The base of the pole **may not** be cut off. Where the top of the pole is cut to maintain even height, the cut portion shall be suitably treated with 3 coats creosote or similar equal quality products.
19. Where the normal angular stay or a flying stay is not possible, a raised angular stay shall be fitted.
20. This shall consist of a secondhand railway line planted approximately 2 metres from the wooden pole.
21. The top of the railway line shall be approximately 2,5 m above ground and shall have a 25 mm dia. X 260 mm ling round bar securely welded to the upper end of the railway line. A steel plate 450 mm x 450 mm x 6 mm shall be securely welded to the lower end of the railway line.
22. The complete assembly before planting shall be painted with 2 coats galvanized paint.
23. The stay wire shall be looped around the round bar and then secured to a point 300 mm from the top of the wooden pole.
24. The lower end of the railway line shall be a minimum of 1500 mm below normal ground level. The Clause 16 (h) is also applicable to this assembly.
25. The star, starred assembly, securing, etc. shall conform to the basic requirements applicable and as detailed under “stays”.

1. Where a wooden pole is used in place of secondhand railway line, then the conditions above shall apply where appropriate.
2. Where existing stays are planned for re-use, they shall not be re-used unless they conform generally to the requirements stated above and will provide at least 10 years maintenance free service.
3. Strut poles shall only be used in special circumstances as approved by the Engineer. Strut poles shall consist of a pole similar in size to the termination pole to be strutted. The upper end of the strut pole shall be secured to the termination pole by means of 2 x 50 mm x 6 mm galvanized flat irons bolted with 19 mm galvanized bolts through both poles. The lower end of the strut pole shall be buried approximately 600 mm below ground level and butted against a 450 mm x 450 mm x 6 mm galvanized stay plate.

The fixing height of the strut pole shall be determined according to the site requirements but will generally be the same as for stay wire. Distance to be 5,1 mm away from pole to be stayed.

1. SOIL CONDITIONS
2. Details as specified in these sections shall be applicable to well compacted soil or rocky terrain.
3. Where sandy or loose soil is encountered special precautions shall be taken as follows:
4. The soil around the proposed hole shall be removed up to a depth of 2000 mm and approximately 2000 mm dia.
5. After planting the pole, suitable large rocks and suitable compactable soil, shall be laid in approximately 300 mm layers maximum and well compacted, until the pole is securely planted.
6. Alternatively, the rocks may be replaced by two rings of concrete 1000 mm in diameter by 300 mm thick at the base of the pole and approximately 100 mm below normal ground level. The soil in between and on the sides of the pole shall be well compacted in layers of 300 mm maximum to ensure secure planting of the pole.
7. GENERAL INSTALLATION REQUIREMENTS – POLES
8. Poles shall be in a neat straight line being equidistant from the correct property boundary line / pegs or the centre line of the road.
9. Where the road is curved, the pole shall follow the contour of the road.
10. Poles shall be placed at a maximum spacing of 40 m on a straight line unless written approval is received from the Board for distances exceeding 40 m.
11. As far as possible and is reasonable, poles shall be at equal spacing for a township and generally as shown on the drawings.
12. Poles shall be placed plumb in both directions. After tensioning of the overheads the plumpness shall be checked and corrected as necessary.
13. After installation of poles, kiosks, etc. all surplus materials, spoil, etc. shall be removed and the area generally left in a neat and tidy condition.
14. Fixing on poles from ground level shall be as follows:
15. 7500 mm angular stay or raised angular stay
16. 7000 mm low tension cables (second alternative)
17. 7500 mm flying stay
18. 7500 mm low tension , cables (first alternative)
19. 7800 mm top of pole above ground
20. Irrespective of all other clauses, the contractor shall ensure overall secureness of poles in their respective holes.
21. Centre line of poles shall be 350 mm from official property boundary line pegs unless written instructions to the contrary are issued.
22. GENERAL INSTALLATION REQUIREMENTS – CABLES
23. All work executed shall be in a neat and workmanship like manner. Shabby work shall be removed / disconnected and redone to the satisfaction of the Engineer.
24. All cable bending or curve radii specified by the manufacturers / suppliers shall be observed.
25. Branch and other line connections shall be made using the correct aluminium / copper or aluminium / aluminium or other approved ferrules.
26. Each phase connector of Branch and other line connections shall be equally spaced.
27. Terminations into distribution substations or kiosks shall be by means of a 2,5 mm high galvanized kick pipe down the pole and a suitable sleeve underground to protect the cable.
28. The kick pipe shall be appropriately sized galvanized water pipe, large enough to permit the cable to pass through easily. The kick pipe shall end 300 mm below ground level and galvanized saddles or stainless steel straps shall be fitted at 600 mm intervals up the pole.
29. After terminations or service connections have been made, the cable and take off cables in the vicinity of the connections shall be securely strapped with PVC strapping at regular intervals to ensure a neat and workmanship-like job.
30. Where a bundle cable traverses down a wooden or other pole, it shall be strapped at intervals of not more than 600 mm with stainless steel strapping.
31. All cable ends, which are not planned to be connected to a kiosk, substation, etc. during duration of the contract, shall be sealed with heat shrink end caps.
32. Sag of cables shall comply with the following maximum allowable limits when ambient temperature is 25 ˚C. The limits shown in Table 1 shall be maintained irrespective whether lighting conductors are included or excluded.
33. Maximum tension allowable:

Summer 600 kg (6000 N) at 15 ˚C with wind 100 kph

Winter 750 kg (7500 N) at 10 ˚C with wind 60 kph (180 Pa pressure)

1. Table 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SIZE OF CABLE** | **20 m SPAN** | **30 m SPAN** | **40 m SPAN** | **50 m SPAN** |
| 2 or 3 x 16 mm2 + N | 0.2 m | 0.25 m | 0.32 m | 0.4 m |
| 3 x 25 mm2 + N | 0.24 m | 0.25 m | 0.32 m | 0.4 m |
| 3 x 35 mm2 + N | 0.28 m | 0.33 m | 0.43 m | 0.65 m |
| 3 x 50 mm2 + N | 0.32 m | 0.38 m | 0.49 m | 0.73 m |
| 3 x 70 mm2 + N | 0.4 m | 0.46 m | 0.6 m | 0.92 m |
| 3 x 95 mm2 + N | 0.5 m | 0.65 m | 0.9 m | 1.44 m |
| 3 x 120 mm2 + N | 0.35 m | 0.45 m | 0.6 m | 0.75 m |

Spans in excess of 50 m will not be permitted and spans in between those Table 1, should be appropriately approximated.

1. The maximum distance between strain points shall not exceed 250 m unless otherwise specified on the drawings.
2. Where the angle of the cable exceeds 31 ˚ from the straight, double anchoring shall be used.
3. INSTALLATION TOOLS AND EQUIPMENT
4. Only the tools and equipment specified by the manufacturer shall be used for installation.
5. Where a vehicle is used to pull the bundled cable into position, this will only be permitted if a dynamometer or a torsion gauge is installed between the vehicle and the cable, and adequate precautions are taken to ensure that damage to the cable cannot occur. This may only take place under the direct supervision of the Engineer’s Offices.
6. Any cable damage, whether due to incorrect installation procedures or not, must be replaced at no cost to this office.
7. EXCAVATIONS
8. Shall be in accordance with specification: “Trenches and Excavations”.
9. Table 2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **CONDUCTOR CHARACTERISTICS** | **SINGLE CONDUCTOR** | | | | | | **NEUTRAL** |
| CONDUCTOR SIZE mm | 16 | 25 | 35 | 50 | 70 | 95 | 7 x 3.15 |
| No. of wires & dia. Wire | 7 x 1.7 | 7 x 2.14 | 7 x 2.52 | 7 x 1.78 | 7 x 2.14 | 7 x 2.52 |
| Min. Insulation thickness mm | 1.2 | 1.4 | 1.66 | 1.6 | 1.8 | 1.8 | 1.6 |
| Current rating Amps in open air at 30˚ C | 90 | 120 | 140 | 170 | 210 | 260 |  |
| Volt Drop at 30˚ C V.A. km | 3.41 | 2.18 | 1.56 | 1.09 | 0.78 | 0.58 |  |
| Short circuit overload current Amps @ 30˚ C for 1 s | 2500 | 4000 | 5600 | 8000 | 11100 | 15100 | 5400 |
| Max Linear Resistance / km @ 30˚ C | 1.97 | 1.26 | 0.9 | 0.63 | 0.45 | 0.33 |  |
| Breaking strength MIN  daN  MAX | 200 | 300 | 420 | 600 | 850 | 1200 | 1600 |
| 300 | 450 | 630 | 900 | 1260 | 1660 |

NOTE: Larger sizes of conductors, shall have appropriate values.

PAA

### PAA: MEDIUM VOLTAGE OVERHEAD POWER LINES

1. GENERAL
   1. COMPLIANCE

The installation shall comply with the SAIEE Code of Practice on overhead lines for conditions prevailing in Southern Africa and with Occupational Health and Safety Act (Act 85 of 1993 as amended to date).

Any further requirements laid down by various statutory bodies such as the Telkom, Transnet, etc., shall also be observed when applicable.

* 1. EVERYTHING NECESSARY

All plant, labour, materials and equipment required in adhering to the various standards, acts and regulations mentioned above, although not necessarily detailed in the specification shall nevertheless be provided for under this contract and shall be to the approval of the Engineer.

* 1. DANGER NOTICE AND PHASE IDENTIFICATION DISCS

Danger notes shall be fitted at all structures fitted with transformers, remote mechanically operated switchgear or cable or other apparatus, and at other positions as may be decided by the Engineer. They should be written in the appropriate official languages of the Region.

Danger notices shall be fitted at a height approximately 3 metres above ground level.

Phase identification discs corresponding to the colour of the phases shall be fitted at all terminal or tee-off structures.

1. SURVEYING AND PEGGING

The routes of the overhead power lines are shown on the drawings and where applicable the necessary wayleaves or servitudes will be obtained by the Employer.

The Contractor will be responsible for ensuring that the route is accurately followed and that the best locations are selected for poles, taking into account topographical conditions, road crossings, telephone crossings, buildings, gates etc. The drawings show the layout generally after extensive on-site investigation and the pole positions indicated take into account the above requirements within the limits of scale.

Where the contractor is in any doubt regarding routing or pole location he shall, after having obtained the approval of the Engineer, employ the services of a registered Surveyor to obtain the correct locations. Reimbursement for the cost of such services will, subject to granting of approval, be made from the Provisional Sum included for this purpose. Any major deviation considered necessary must be approved by the Engineer.

The Contractor may not enter private property without the owner's consent. Where such consent is withheld the Engineer is to be immediately notified.

1. BUSH CLEARANCE

This Contract is to include for the removal of all trees and bush within 5,0 m of the centerline of the line and for the lopping of branches encroaching within this area. Trees beyond these limits are also to be removed where they constitute a danger to the line or as necessary for construction. The extent of such clearance is to be checked on site prior to tendering, as no extra payment will be made due to lack of knowledge in this regard. All material cleared is to be removed from the site. However, the Contractor shall not be deemed to have ownership of any such material.

1. POLES AND SUPPORTS
   1. Wood poles shall be used unless otherwise specified the various constructional arrangements being indicated on the drawings.
   2. Wooden poles shall be capable of withstanding a minimum fibre stress of 55 MPa and shall conform the SANS 753, 754 - 1982 and subsequent amendments. Poles with a top diameter less than the values specified in table SF. 22 shall only be considered if these are capable of withstanding a fibre stress greater than 55 MPa such that the equivalent strength requirements are maintained. Nevertheless the use of poles having a smaller top diameter than those mentioned in Table 22 shall be subject to the approval of the Engineer.
   3. All wood poles are to be bound approximately 25 mm below the top with 3 turns of 3 mm dia. Galvanized steel wire wrapped tightly around the pole, fixed with galvanized staples.
   4. All poles shall have pole caps firmly fixed to the pole. These may either be in the form of P.V.C. caps or comprise minimum 1 mm thick conical galvanized steel caps attached with clout nails to champhered tops.
   5. A template shall be used for marking off holes required for securing insulator brackets, supports, bolts, cross arms, cradle supports, etc. All drilling of wood poles and wood structures shall be done prior to erection and all drilled holes, cut surfaces, and pole tops, etc. shall be coasted with a creosote/tar mixture.
2. POLE HOLES

It is preferred that pole holes be auger drilled wherever this is possible.

Where pole holes are hand-excavated the material is to be set aside in layers to ensure that during back-filling the material is replaced in its original strata. Compaction is to comply with the requirements set out under "Compaction" elsewhere in this Specification.

When calculating the cubic capacity of hand excavated pole and stay holes for payment purposes, the following measurements will be applied:

9,0 m Poles : 1,2 × 0,62 × 1,7 m deep

10,0 m Poles : 1,2 × 0,62 × 1,8 m deep

11,0 m Poles : 1,2 × 0,62 × 1,8 m deep

12,0 m Poles : 1,2 × 0,62 × 2,0 m deep

13,0 m Poles : 1,2 × 0,62 × 2,2 m deep

Stays : 1,2 × 0,62 × 1,8 m deep

Excavations for mono-pole steel structures will be done accordingly to required plinths for the applicable pole structure.

1. WOOD CROSS ARMS

These shall be of suitable lengths and diameter for their purpose or as further detailed elsewhere in this Specification (See Table 23).

1. STEEL CROSS ARMS

These shall be hot dipped galvanized rolled steel channel section not less than 100 mm x 50 mm x 6 mm unless otherwise specified and of suitable length for the particular purpose.

1. CROSS ARM FIXING

Contact between cross arm and pole surfaces shall be such as to ensure no possible movement of cross arm, either longitudinal or rotational. Where necessary, suitable braces shall stabilize cross arms.

Cross arms supporting strain insulators or cradles shall be mounted so that they pull towards the pole, no tension being taken by the attachment bolts.

1. INSULATORS
   1. Unless otherwise specified H.V. strain insulators shall be silicon with ball and socket fittings and H.V. pin insulators brown glazed porcelain, both complying with SANS 177 and of the types indicated below. H.V. pin insulators shall be mounted on suitable swan neck spindles or vertical spindles as appropriate.
   2. L.V. insulators shall be white glazed porcelain complying with SANS 161. L.V. strain insulators shall be type S.05 mounted in S.05/MD brackets, L.V. intermediate insulators being either S.05 insulators mounted on the side of poles in a vertical formation or P.05 insulators on P.05/M vertical spindle in a horizontal formation. Type S.05 insulators shall be provided with felt washers.
   3. All spindles shall be correctly sized for the cross arms used.
   4. All spindles mounted on wooden poles or cross arms are to be bonded with 16 mm2 HD bare copper.
   5. The type of construction, method of insulator supports, details of brackets, spacing, etc. together with details of voltages are specified in detail elsewhere in this Specification.
2. POLE WASHERS

All bolts used in wood pole construction, all "D" bracket fixing bolts, "A" frame fixing bolts, crossarm bolts and swan neck insulator brackets are to be fitted with suitable heavy duty galvanized pole washers below the nut. These washers are to be equal to type VC37 (GALV) as manufactured my Messrs Electrical Line Components.

1. CONDUCTORS

Full details of the conductors required are given elsewhere in this Specification. All conductors shall comply with SANS 182 as appropriate.

Stringing of conductors shall be carried out in accordance with the Manufacturer's sag and tension charts. Before making off the conductors shall be strained to the initial sag of tension for the given temperature as specified by the Manufacturer.

Binding-in at intermediate H.V. insulators shall be carried out using approved type proprietary binders similar to Dulmison Preformed. The binding-in shall be done strictly in accordance with the Manufacturer's instructions. Care shall be taken to ensure that the binder is correctly sized for both the insulator and conductor. Binding-in at L.V. intermediate supports shall follow accepted good practice for the conductor used. For binding-in of aluminium conductor, armour rods shall always be used except where armouring is automatically provided by the use of the proprietary binder installed. In this case extreme care should be taken to ensure that all recommended conductor protection pads are properly in place.

Where slack spans are employed, care is to be taken to ensure that conductors are free of kinks, bends, etc. and that the span has a neat and tidy appearance.

1. MID SPAN JOINTS

Approved type proprietary mid-span joints similar to Dulmison Preformed shall be used for copper to copper or for aluminium to aluminium conductors. Such joints shall be made strictly in accordance with the Manufacturer's instruction by person trained in their use. Mid-span joints of dissimilar conductors will not be permitted.

1. CONNECTIONS AND JOINTS

Connections shall be suitable for the particular conductors and shall comply with the conductor Manufacturer's recommendations.

For aluminium to aluminium to copper to copper non-voltage joints, these shall be parallel groove clamp, double lines tap or compression sleeve joints made with a hydraulic tool. Extreme care shall be taken to ensure that only compatible materials are used for jointing aluminium conductors. Terminating lugs shall be of the cold compression type.

Where aluminium to copper connections are to be made, either from line to line or line to cable tail, these shall be made using sacrificial tails. These tails, which shall be of the same material as the line, shall be joined by means of bimetal connectors to prevent electrolytic corrosion occurring, and installed in accordance with the Manufacturer's recommendations. Where copper cables not larger than 25 mm² are to be connected to aluminium lines, grease tubes and aluminium line taps must be used. In all cases where joints are made between different metals, the copper conductor must be below the aluminium to reduce the risk of electrolytic corrosion. All aluminium to aluminium joints are to be coated with "Densal" paste regardless of the method of jointing and are to be wrapped in "Denso" tape.

Any long tail or other connection is to be supported by stand-off pin insulators where likely to come into contact with any other line or earthed part of the installation. In all cases where connections exceed 1,5 m in length, a stand-off insulator must be used.

Any cable box made off to equipment or line supported by "H" pole construction shall be attached at the centre of a suitable cross-arm such that it is directly below the centre phase. The cable is to follow a gradual sweep from one of the poles.

1. FITTINGS

All fittings shall be selected to ensure that their factor of safety is in compliance with the Code of Practice at the maximum design voltage. Pigtail hooks will not be accepted. All fittings such as clamps, tower hooks, spindle brackets, eye nuts, rods, nuts, washers, stay rods, turnbuckles, etc., shall be hot dip galvanized mild steel, the galvanizing complying with the requirements elsewhere in this Specification.

1. STAYS

Stay wires shall be galvanized steel of 700 MPa U.T.S. complying with B.S. 184 and shall be 12 mm diameter 1/7/4,00 mm unless specified to the contrary elsewhere herein. Stays shall in all cases be looped twice around the pole at a point mid-way between the two bolts in the case of an "A" frame construction or at the level of the middle conductor in the case of a vertical construction. Where two stays are called for, these shall be between vertical conductors, or at top and bottom bolts of an "A" frame.

Stay rods shall be galvanized steel of 400/500 MPa U.T.S. of circular section with turnbuckle to BS 16 pattern 1. These shall have at least 30 % take up remaining after the line has been energized. Except where specified to the contrary elsewhere in this Specification stay rods shall be 20 mm diameter and 2,5 m long and base plates shall be 450 mm².

Where H.V. an L.V. lines are supported on common poles, double stays shall be employed. Double stays must be installed one above the other unless the Engineer approves otherwise.

All stays shall be fitted with stay insulators, those for 11 and 22 kV lines being type 21-0522 and for L.V. lines type 21-1075. These shall be located not less than 5 m above the ground. For other voltages, the type of insulator will be specified elsewhere in this Specification. The angel between stay wire an pole shall be 45˚ where possible but should not be less than 35˚. Stays shall be provided as indicated on the drawings, and in any other placed necessary for proper stability.

Wooden stay guards shall be fitted to all stays readily accessible to pedestrian or vehicular traffic. The guards shall be painted in alternate yellow and black cross stripes along their complete lengths. Stay protectors shall be fitted with galvanized saddles screwed to the timber.

Flying stays shall be installed where necessary for proper stability where the use of props or stays are precluded, ineffective or unsightly.

Stays shall be accurately positioned to exert force in the correct direction.

1. PROPS (STRUTS)

Wood props shall be provided as indicated on the drawings, and as may be necessary for proper stability.

1. CRADLES AND CRADLE SUPPORTS

The cradles shall be in the form of two stringer wires of 16 mm² hard drawn solid copper, with cross-rungs of the same wire at 600 mm intervals. The cradle wire stringers shall be securely fixed to each crossarm and at shackle points. Two clamps per stringer wire shall be used for fixing.

Cradle supports shall be similar in construction to cross-arms or as detailed elsewhere in this specification.

Earth continuity of each cradle to its earthing point must be ensured.

1. BONDING OF STEELWORK

All steelwork on a pole is to be bonded using 16 mm² hard drawn solid copper conductor. This requirements applies to cross arms; all insulator supports and any other hardware. Where equipment is also mounted on the pole, the bonded metal is to be earthed to an earth spike as elsewhere specified herein, using a 35 mm ² bare hard drawn copper conductor.

1. EXPULSION FUSES

Expulsion fuses, three units to a set, suitable for the voltage specified, shall be provided as shown on drawings. They shall be mounted on a steel cross arm firmly attached to the pole so located that ease of operation is ensured and sufficient clear space for the isolated element is provided. The minimum ground clearance for live parts shall be 5 m. Where fuses are used to protect pole mounted transformers, extreme care shall be taken to obtain a neat and practical arrangement on the pole. Where such units are specified for use as links, they are to be fitted with solid copper links manufactured for the purpose.

Allowance shall be made for the supply of six fuses per set, three being spare. A maximum of 6 spare fuses or each size shall be provided, per installation. When specified, a link stick for the particular equipment provided with torch attachment is to be supplied under this contract.

1. GANG OPERATED LINKS

These are to comprise three phase off-load units, operated by means of a pole mounted handle. The unit is to be mounted on suitable steel cross arms on a "H" pole construction. The operating link mechanism, rods, handle, etc. shall be hot dip galvanized. The handle shall be lockable in both the "Open" and "Closed" position and a suitable padlock shall be provided as specified under "Padlocks" elsewhere in this part. The operating rod shall be fitted with an insulated section to prevent danger to the operator.

An earth electrode is to be installed 2 m from the isolator handle, on the opposite side of the pole and is to be connected to the pole top steelwork by means of a 35 mm² P.V.C. insulated earth conductor. An earth mat is to be provided at a depth not exceeding 150 mm deep at the operating position and is to be connected to the operating handle. Both spike and mat are to comply with the requirements under "Earthing" elsewhere in this Specification.

1. SURGE ARRESTORS

The arrestors shall, unless specified to the contrary elsewhere in this Specification, have a rate current of 5kA and rated voltage of 10 kV r.m.s. : minimum flash-over voltage of 17,5 kV r.m.s. at 50 Hz and 43 kV peak with a 1,2/50 wave form and peak discharge voltage with 8/20 us current wave of 37 kV at 5 kA.

A set shall comprise three units, complete with suitable steel cross arm mounting bracket.

Earthing shall be by means of a 35 mm² stranded bare copper conductor, to an earth spike, as specified under "Earthing" elsewhere in this Part. Where the arrestors have a connection of a metal not compatible with the earth

conductor a sacrificial tail shall be used, generally as specified under "Overhead Line - Connections and Joints" elsewhere in this Specification.

1. TABLE OF MINIMUM DIAMETERS OF POLE TOPS CORRESPONDING TO POLES CAPABLE OF WITHSTANDING FIBRE STRESS OF 55 MPa

|  |  |
| --- | --- |
| LENGTH m | MIN. TOP DIAMETER mm |
| 9 | 160 |
| 10 | 160 |
| 11 | 180 |
| 12 | 180 |
| 13 | 180 |
| 14 | 180 |
| 16 | 180 |

1. TABLE OF MINIMUM DIAMETERS OF WOODEN CROSS ARMS

|  |  |
| --- | --- |
| LENGTH m | MIN. TOP DIAMETER mm |
| 1,2 | 140 |
| 2,0 | 140 |
| 2,5 | 140 |
| 3,0 | 140 |
| 3,5 | 160 |
| 4,5 | 160 |
| 6,0 | 160 |

PXB

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### PXB: TRENCHED & EXCAVATIONS

1. GENERAL
2. This specifications covers the broad outlines and classifications of the requirements relative to the:
3. trenching for underground electric cables
4. hole excavations for planting of poles and stays
5. excavations for manholes or building foundations
6. and similar requirements
7. Where approvals are noted, this shall mean by the Employer’s Engineer and shall include his delegated nominee but all shall be within the limits of authority as set from time to time, unless otherwise specifically noted.
8. MATERIAL CLASSIFICATION
9. Materials will generally be classified as specified in Part D of SANS 1200 – 1988.
10. The Contractor may use any method he chooses to excavate any class of material but his chosen method of excavation shall not determine the classification of the excavation. The Engineer will decide on the classification of the materials.
11. In the first instance the classification will be based on inspection of the materials to be excavated and on the criteria given in Clauses 3, 4 and 5. All equipment specified in Clauses 3, 4 and 5 shall be in good mechanical condition.
12. “Efficiently” as used in Clauses 3, 4 and 5 shall be taken to mean “in a manner that can reasonably be expected of a Contractor” having regard to the production achieved.
13. In the event of a disagreement between the Contractor and the Engineer it shall be the responsibility of the Contractor, if required and subject to the terms of 4.1, of SANS 1200 Section D, to make available at his own expense such mechanical equipment as is specified in Clauses 3, 4 and 5 in order to assess the reasonable removability or otherwise of the material. The decision of the Engineer on the classification shall then, subject to the provision of the Contract, be final and binding.
14. Should the Contractor consider that any material encountered in the excavations is either “hard material” or “rock” he shall immediately notify the Clerk of Works. Failing such notification, the excavation shall be taken to be “ordinary material”.
15. Where a percentage of a trench is ordinary/hard/rock the Clerk of Works on notification, will classify accordingly and binding.
16. SOFT EXCAVATION (ORDINARY MATERIAL)
17. Soft excavation, other than in restricted excavation, shall be excavation in material that can be efficiently removed or loaded, without prior ripping by any on the following plant:
18. A bulldozer of mass (including mass of a ripper if fitted) approximately 22 t and flywheel power approximately 145 kW, or
19. A tractor-scraper unit of total mass approximately 28 t and flywheel power approximately 245 kW, pushed during loading by a bulldozer equivalent to the specified in above Clause 4(a) below, or
20. A track type front-end loader of mass approximately 22 t and flywheel power approximately 145 kW.
21. In the case of restricted excavation, soft excavation shall be excavation in material that can be efficiently removed by a back-acting excavator of flywheel power approximately 0.10 kW for each millimeter of tined-bucket width, without the assistance of pneumatic tools such as paving breakers.
22. INTERMEDIATE EXCAVATION (HARD MATERIAL)
23. Intermediate excavation, other than in restricted excavation, shall be excavation (excl. soft excavation) in material that can be efficiently ripped by a bulldozer of mass approximately 35 t, fitted with a singleton ripper suitable for heavy ripping and of flywheel power approximately 220 kW.
24. In the case of restricted excavation, intermediate excavation shall be excavation (excl. soft excavation) in material that requires a back-acting excavation of flywheel power exceeding 0.10 kW for each millimeter of tined-bucket width or the use of pneumatic tools before removal of equipment to that specified in Clause 3(a) (iii) above.
25. See Clause 5(f) and 5(g).
26. HARD ROCK EXCAVATION (ROCK)
27. Hard rock excavation, other than in restricted excavation, shall be excavation (excluding boulder excavation) in material that cannot be efficiently ripped by a bulldozer equivalent to that specified in Clause 4(a) above before removal.

NOTE: Such excavation generally includes material such as formation of un-weathered rock that can be removed only after blasting.

1. In the case of restricted excavation, hard rock excavation shall be excavation in material (excluding boulder excavation) that cannot be efficiently removed without blasting or without wedging and splitting.
2. Boulder excavation Class A shall be excavation in material containing more than 40% by volume of boulders or size between 0.03 m3 and 20 m3 in a matrix of soft material or smaller lumps or hard dolomite.

Excavation of solid boulders or lumps of size exceeding 20 m3 will be classed as hard rock excavation.

Excavation of fissured or fractured rock will not be classed as boulder excavation but as hard rock or intermediate excavation according to the nature of the material.

1. Boulder excavation Class B shall be excavation of boulders only in a material containing 40% or less by volume of boulders ranging in size between 0.03 m3 and 20 m3 in a matrix of soft material or smaller boulders. Those boulders requiring individual drilling and blasting in order to be loaded by a track type front-end loader or back-acting excavator, as the case may be, as specified in clause 3(a) or 3(b) above, will each be separately measured as boulder excavation Cass B. The excavation of the rest of the material will be classed as soft or intermediate excavation according to the nature of the material.
2. The Contractor shall observe and comply with the provisions of the Explosives Act No. 26 of 1956 or any amendment thereof or regulations framed thereunder.
3. The rates shown on the Bill of Quantities shall include for the removal of all unusable hard material or rock to a point not more than 3 km form the Black Township, unless itemized separately on the Bill of Quantities.
4. The rates shall also include for the supply and delivery of suitable backfilling material to adequately fill the trenches where rock and hard material could not be used, unless itemized separately on the Bill of Quantities.
5. TRENCHING
6. The Contractor will be required to attend the site inspection in order to satisfy himself on the soil and topographical conditions which may be encountered on the site, during trenching operations.
7. Due allowance must be made for slower hand trenching in the rates quoted, if topographical conditions will not permit machine trenching and due cognizance must be taken of the total contract period required. Additional time cannot be considered for this work except in very special circumstances.
8. If the contractor considers it necessary, he shall be granted permission and he shall arrange for test holes to be dug. He shall base his various rates of material classification on his findings as no extra claims will be considered once tenders have been awarded.
9. Prior to commencement of machine trenching all existing services, shown on the service drawings, must be exposed by hand digging by laborers adequately trained in this work.
10. Prior to commencement of the trenching, the proposed trenching line shall be clearly marked with the use of lime or similar material.
11. Trenches shall be in a straight line one (1) meter form the property boundary line unless detailed otherwise on the drawing.
12. Where the road and property line are curved the trench shall follow the contour of the property line.
13. The trench shall be excavated to the minimum widths and depths as detailed in the Bill of Quantities.
14. The base of the trench shall be suitably levelled off and trimmed to suit the number of cables to be installed.
15. Deviations at large manholes or similar obstructions of other services are permitted subject to the approval of the Clerk of Works. Details of such deviations to be shown on drawings.
16. Trenching in areas with a large sand or gravel content may require suitable shoring to achieve uniform and correct cable depth. Due allowance for this must be made in the rates quoted. (See Clause 6(a)).
17. Unless detailed otherwise on the drawing the following depths are required to underside of cables or services:

Electrical cables 11 000 Volt 900 mm

Electrical cables 600 / 1 000 Volt 750 mm

Telkom 600 mm

1. The width of trenches shall be in accordance with the Bill of Quantities. If the Contractor chooses to excavate wider than specified, he may do so at his own cost entirely including backfilling etc.
2. BEDDING AND CABLES
3. Bedding of cables is required to protect the cable from sharp projections or alternatively to achieve max current carrying capacity of cables or both.
4. Material considered suitable for bedding is sand, earth, loam and in certain instances certain types of soft clay.
5. Where the spoil removed is suitable for bedding but contains a percentage of stones or pebbles, then it may be used for bedding if it is first put through a sieve not exceeding 25 mm square. Irrespective of their size, stones with sharp edges will not be permitted.
6. Where sand is specifically required, it shall be shown as such on the Bill of Quantities and required by the Clerk of Works. Otherwise, the cheapest bedding available can be used.
7. In the event of clay or chalky soils or gravel being found, then HV cables will be bedded using sand.
8. Normal bedding requirements for electric cables will be as follows:

|  |  |  |
| --- | --- | --- |
| **CONDITIONS** | **UNDER** | **OVER** |
| 11 kV XLPE and L.V. cables in earth | nil | nil |
| 11 kV XLPE in other conditions | 150 mm sand | 150 mm sand |
| 11 kV in gravel/hard/rock | 150 mm sand/earth | 100 mm earth/sand |
| 1000 V kiosk feeders in gravel / hard / rock | “ | “ |
| 1000 V for house services in gravel / hard / rock | “ | “ |

1. The final decision as to whether bedding may be omitted or not, shall rest with the Clerk of Works.
2. Cable bedding requirements shall be detailed separately on the Bill of Quantities and shall be based on a linear rate per trench. The Contractor shall make due allowance in his rates quoted for:
3. possible wind age losses for bedding material like sand
4. losses at dumping points
5. transport to and on the site of bedding material
6. purchase cost of the bedding material, if not available on site
7. the number of cables in the trench
8. No claims for extras on bedding will be entertained after the contract has been awarded, unless very special circumstances dictate otherwise.
9. TELKOM
10. Special conditions are required by Telkom and these must be studied carefully and complied with fully.
11. The minimum clearance allowable between electric power cables and telecommunication cables in ground without special protection is 600 mm even if latter are installed in pitch fiber or other pipes (Road crossing excluded).
12. Where the separation of cables is between 300 to 600 mm, a cement slab shall be placed over the electrical cable.
13. Where the separation of cables is less than 300 mm then a cement slab shall be placed over the electrical cable and a cement slab shall be placed between the two cables.
14. Contractors shall quote for the supply of good secondhand cement slabs (small cracks permitted) and for the laying of same as per the Bill of Quantities.
15. Cement slabs shall be placed on 100 mm bedding on top of cables and not directly on the cable itself.
16. At road crossings, where cables come together to enter pipe sleeves, suitable protection for electric cables shall be provided as per (d) above.

|  |  |
| --- | --- |
| CLEARANCE | PROTECTION REQUIRED |
| More than 600 mm | No further protection required |
| 500 mm or less | Cover tiles used or cables installed in pipe |
| Less than 300 mm | Concrete slabs or similar permanent separator required plus cover tiles |

1. OTHER SERVICES INCLUDING PEGS / BEACONS
2. Prior to commencement of trenching, all services shown as “existing” on the service drawings must be exposed by means of hand digging, by laborers suitably skilled for this work.
3. Particular care must be exercised and laborers shall be fully warned especially where “alive” electric cables are to be exposed.
4. Any damage to existing services shall be reported to the Clerk of Works, without delay, irrespective whether shown on drawings or not.
5. Repairs to “known” existing services shall be for the contractors account and shall be repaired with new materials and in accordance with acceptable and correct repair procedures.
6. Particular care must be exercised not to undermine other services when excavating in close proximity, since the Electrical Contractor shall be responsible for subsequent loss and damage.
7. Where other services must be removed by the Electrical Contractor, prior written consent of the Engineer is required. Every care shall be taken not to damage services removed. Damage shall be reported to the Clerk of Works, when noted.
8. Other services shall be replaced by the competent authority or Contractor.
9. Trigonometrically and other survey beacons or pegs may not be removed, altered or replaced by the Electrical Contractor.
10. Where this is unavoidably necessary, the Engineer/Clerk of Works shall be advised in writing and appropriate action shall be taken.
11. Beacons or pegs lost, removed or altered shall be replaced at the Contractors expense excluding (i) above.
12. PIPE DUCTS AT ROAD CROSSINGS
13. In general, all pipe ducts will be supplied and installed by the Civil Contractor, as per the requirements of the Electrical Planner.
14. Ducts shall be laid straight across a road at depth of approximately 800 mm from the top of the duct to the finished surface of the road.
15. Ducts for 11 kV cables shall be laid in a straight line with the proposed trench approximately 1 m from the property line.
16. Low tension cable ducts will be adjacent to the HV cable ducts but towards the splay of the road.
17. In certain positions, at least one pipe duct may be used by Telkom and the drawings must be checked before cables are drawn in.
18. As the Civil Contract may be completed some months or years before the Electrical Contract is commenced, the Electrical Contractor will have to search for pipe duct ends and due allowance must be made for this in the rates quoted for trenching.
19. Duct positions will be according to drawing ± 1000 mm and not exceeding 1250 mm in depth. No excavation for searching for ducts must exceed the above requirements without the Electrical Clerk of Works prior approval and noting, since the additional cost for searching shall be noted for payment by the Civil Contractor.
20. Some additional ducts may have to be laid by the Electrical Contractor. Compaction over roads or walkways shall require final approval by the Civil Section of the Employer and shall be approximately 98 % Mod. AASHTO Density.
21. All ducts must be cleared by pulling through a loose-fitting mandrel prior to the installing of cables. Ducts which are blocked must be inspected by the Electrical Clerk of Works for a claim against the Civil Contractor.
22. All ducts shall end approximately 1000 mm behind the kerb face. Adequate precaution must be taken to ensure correct compaction in layers of 150 mm thick maximum and to avoid undermining of road or kerb.
23. As general rule, 11 kV and LV cables shall not be drawn into the same duct, also two (2) HV cables shall not be drawn into a single duct. The ducts provided shall be as follows:

HV Cables (11 000 Volt) : 1 Duct x 150 mm each

LV Feeder Cables 120 mm or larger : 1 Duct x 150 mm each

LV Feeder Cables 95 mm or smaller : 1 Duct x 100 mm each

House Service Cables 16 mm2 or smaller : 1 Duct x 100 mm for 4

Cables

1. Pipes suitable for ducting shall be 100 mm x 150 mm asbestos cement with rubber sleeves unless otherwise noted on the Bill of Quantities.
2. After pipe ducts have been installed by the Civil Contractor he shall leave a No. 10 gauge galvanized draw wire in the duct.
3. All pipe ducts, after installation by the Civil Contractor, shall be suitably sealed to prevent ingress of soil, small stones, sand etc.
4. BACKFILLING
5. Prior to backfilling, the drawings shall be checked to ensure that all cables are laid in the trench, as required.
6. All loose stones or any other materials likely to cause damage to cables, shall be removed form trenches, before backfilling commences.
7. Backfilling shall not commence without prior inspection, measurement and approval of the Electrical Clerk of Works.
8. Backfilling of trenches in road reserves shall be in layers not exceeding 300 mm and the use of a suitable compacting machine is essential in order to achieve an approximate 98 & Mod. AASHTO Density.
9. Where large boulders and rock have been removed during the trenching, these shall not be used as backfilling work must be shown on the Bill of Quantities as m3/km.
10. Backfilling across properties shall be in layers of 300 mm with the use of correct facilities. Careful removal and prompt replacement of plants, shrubs, grass etc. including care of subject matter until growth is re-established is essential and must be allowed for in rates quoted.
11. Prior to handover, all cable trenches shall be checked for settling and repaired as necessary.
12. Prior to payment of final retention monies, all cable trenches shall be checked for settling and repaired as necessary.
13. CABLE MARKER TAPE
14. All cables shall be marked by means of a continuous tough, brightly colored PVC sheet known as “Cable Marker Tape” of 800 gauge thickness.
15. Cable marker tape shall be laid approximately 300 mm from finished ground level.
16. Wording on cable marker tape shall be in three languages:

“ DANGER / GEVAAR / INGOZI” with skull and crossbones.

1. Cable marker tape requirements shall be shown on the Bill of Quantities and the following principle shall be followed:

One Cable 1 x 150 mm

Two Cables 2 x 150 mm or 1 x 300 mm

Three Cables 3 x 150 mm or 1 x 300 mm + 1 x 150 mm etc.

1. Where a narrow trench is only possible and the cables are laid one above the other, then the HV cable shall be underneath with its cable marker tape and the LV cable above with its own marker tape.
2. In general practice, all HV cables can be laid adjacent to each other or separated by 75 mm and then the Clerk of Works will indicate the cable marker requirements.
3. JOINT HOLES
4. Joint holes shall be excavated to a sufficient size to permit correct and efficient jointing to be performed.
5. Special precaution must be taken at joints to ensure correct and secure support below cables and joint as well as subsequent backfilling over.
6. CABLE MARKERS
7. Pyramid concrete cable markers for cable position and joint markers shall be supplied in accordance with the Bill of Quantities and Drawing No.
8. Cable route markers shall be placed at:
9. every change of direction
10. approximately every 30 m on a straight run
11. Where the cable trench is in line with the light poles being fed, then cable route markers may be omitted.
12. Cable route markers hall be placed for all 11 000 Volt cables and all kiosk feeder cables.
13. Cable route markers shall be omitted on all house service cables.
14. Cable route markers shall be marked:
15. “HV Cable” for 11 000 Volt cables
16. “LV Cable” for 600 / 1 000 Volt cables
17. Cable joint markers shall be placed above all cable joints for LV and HV joints.
18. Cable joint markers shall be marked as follows:
19. “HV Joint” for 11 000 Volt cable joints
20. “LV Joint” for 600 / 1 000 Volt cable joints

Cable route and joint markers shall be placed level with ground level in that area in order to cause no obstruction.

1. RANDOM CHECK OF EXCAVATION
2. The Employer’s Engineer reserves the right to request random check holes to check cable depth, bedding, material classification, danger tape etc.
3. The Contractor shall supply the necessary labour and facilities to fulfil this requirement to an extent not exceeding one hole per 500 meters or part thereof as laid.
4. Due allowance for this shall be made in the rates quoted for excavation.
5. PROTECTION
6. The Contractor shall take all necessary precaution to prevent trenching work in any way being a hazard to the public.
7. The Contractor shall safeguard all structures, roads, railways, other services, properties etc. from any risk of subsidence and damage.
8. Trenches in front of occupied properties shall be closed by nightfall as far as possible and suitable safe access provided for residents.
9. HANDOVER
10. On completion of the trenching, prior to handover, any subsidence of trenches shall be made good.

Where trenches are across or in a permanent walkway, pavement, or gravel road etc. the final topping will be similar material to the existing material.

PI

### PI: INSTALLATION OF UNDERGROUND CABLES

1. GENERAL
2. This general specification has reference to 1 000 Volt / 11 000 Volt cables used for electric power supply.
3. Installation shall be generally in accordance with the SANS 10142-1 : 2012 Code of Practice for the Wiring of Premises as amended to date and the Occupational Health and Safety Act of 1993 as amended to date.
4. Cables shall be suitable for an earthed system.
5. This Specification is not complete by itself and it must be read in conjunction with the detailed cable specification for each type as detailed on the Bill of Quantities.
6. CODING

Unless otherwise state, the following coding shall be used for the different types of cable:

1. PILC SWAJS Paper Insulated, Lead Covered, Steel Wire Armoured, Jute Served.
2. PILC STAJS Paper Insulated, Lead Covered, Double Steel Tape Armoured, Jute Served.
3. PILC SWAPS Paper Insulated, Lead Covered, Double Steel Tape Armoured, PVC Served.
4. PILC SWAPS PVC Insulated, Steel Wire Armoured and PVC Served (PVCAS).
5. Cable sizes shall be shown in the Bill of Quantities as “core area x No. of Cores” e.g., 35 mm2 x 3 Core.
6. The symbol “AI” shall be used for aluminium cores and “Cu” shall refer to copper cores.
7. The symbols 11 KV or HV shall be used for 11 000 Volt and 1 000 Volt or LV for cables used on 380/220 systems.
8. MATERIALS
9. The Conductor shall be stranded, annealed high conductivity copper or stranded annealed aluminium as stated in the detailed specification.
10. Three of four cores shall be laid in trefoil formation.
11. Where the inner sheath is of lead, it shall be pure lead for normal situations and be “alloy E” (0.4 % Tin, 0.2 % Antimony) where vibration is fairly severe and “alloy B” (0.85% Antimony) where vibration is very severe and persistent.
12. For other cables, an inner sheath of extrude PVC will be provided.
13. Galvanised wire or double steel galvanized tape armouring is required for cable mechanical protection.
14. Jute of PVC serving required for moisture protection.
15. HANDLING
16. During loading and off-loading the cable drums must be handled carefully to avoid damage to the inner layers of the cable. Drums must not be dropped onto or off the delivery vehicle. If no winch, hoist or other mechanical means is available then drums must be gently rolled down suitable ramp or rails.
17. When rolling a drum of cable on the ground, it must always be rolled in the direction of the arrow stenciled by the manufacturer on the drum flange.
18. Periodic rotation of wooden drums is essential to avoid drum timbers from rotting through rising damp.
19. Incorrect handling of drums could result in rejection of the cable by the Engineer, without additional time for the Contract or any other compensation being granted.
20. INSTALLATION

The following points must be adhered to for the correct installation of cables:

1. Robust cable jacks, with a spindle strong enough to carry the total load, shall be securely mounted and operated with the spindle level.
2. The securing ropes must be cut so as to leave the inner end free to move, during unrolling operations.
3. Correct wire mesh pulling stockings must be used for the drawing in of cables.
4. The use of adequate (approximately every 2 meters) well-oiled cable rollers, of the correct size or larger shall be used.
5. All pipe ducts must be cleared of all foreign matter before cables are pulled in.
6. Adequate protection and attention at the entrance and exit to pipe ducts is essential.
7. Maximum pulling forces specified by the manufacturers must not be exceeded.
8. No cables must be laid when temperature is 10˚C or lower unless, the special conditions as required by the Engineer have been fully met.
9. The following bending radii are the absolute minimum and under no circumstances must the radii be less than these dimensions for the size of cable specified:

PVC Insulated Cable = 10 x D

Pater Insulated Lead Cover = 12 x D

XLPE Insulated cables = 15 D

*\*Where D = Overall Sheath Diameter*

1. The Engineer, reserves the right to reject any cables which have been twisted, kinked or damaged in any way, without additional time being granted for completion of the Contract.
2. When laying the cable, a certain “snaking” must be permitted so that contracting during cold weather will not detrimentally effect joints etc. Due allowance for this has been made in this specification.
3. OPENING UP OF EXISTING CABLES AND SERVICES
4. Prior to mechanical or general hand trenching for laying of cables, it will be necessary to expose all existing cables, pipes, other services etc. in close proximity to the proposed route of the new cable.
5. Only labourers experienced in such work and adequately warned of the dangers shall be used by the Contractor.
6. Every care must be exercised by the Contractor since all damage will be for his account.
7. Where services or cables are found which are not shown on the drawings, the Contractor shall advise the Clerk of Works immediately of the same. The Contractor shall then repair same properly and then within one week advise the Engineer or his representative of the cost so involved. The possible route of the “unknown services” shall be taken into account for other excavations in that area.
8. Details of the “unknown services” shall be recorded on the “as built” by the Contractor and the Clerk of Works.
9. CABLE JOINTS AND TERMINATIONS
10. Details of acceptable end boxes and joint boxes shall be shown on the detailed specification. Heat shrink jointing is not acceptable to PILCSTA HV Cable.
11. Joints and terminations shall only be made by competent cable jointers, who are being regularly employed on this type of work.
12. The use of only first class appropriate materials is essential and all ferrules and lugs shall be crimped by means of suitable mechanical or pneumatic tools designed for this purpose except high voltage lugs and ferrules which are to be soldered ferrules. Soldered weak back ferrules must be used on paper insulated cables.
13. Where cables are cut and not immediately made off, the ends shall be sealed without delay to avoid the ingress of moisture.
14. Cable core numbers and/or colours shall be matched without twisting of the joints, cable end seals may be removed and replaced to check this before the next length is laid.
15. During the entire joints’ operation, care must be taken to ensure absolute freedom from moisture.
16. All HV joints and terminations to be compound filled cast iron boxes. Joints are to be made strictly to the manufacturer’s instructions.
17. Joints in all cables shall be avoided as far as possible but if required, this to be agreed to by the Engineer before a joint is allowed.
18. No jointing of LV cables will be allowed except where the cable runs exceed 300 meters in length.
19. No jointing will be allowed in LV service cables between supply point and consumers point.
20. DEPTHS OF CABLES
21. Existing and proposed Telkom cables are laid at a depth of 600 mm.
22. The minimum or shortest distance between a Telkom cable and any other service shall be at least 300 mm. The provision of a vertical concrete slab with a Telkom cable on one side and an electrical cable on one side (see Specification No. 111 for more detail).
23. Unless authorized otherwise in writing, cables depths to underside of cable shall be as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| SINGLE OR 3 MAX TRENCH – WHEN TIERED: | | | |
|  | 11 kV Cables: | 900 mm | 1050/90 mm |
|  | Pipes/ducts under road for cables: | 900 mm | 900 mm |
|  | LV kiosk supply cables only: | 750 mm | 900/750 mm |
|  | Street lighting, high-mast or services connection cables only in street reserves: | 750 mm | 900/750 mm |
|  | Street lighting, high mast or service connection cables common trench with 11 kV cables: | 900 mm | 900/750 mm |
|  | 11 kV cables, across domestic public open spaces, church, schools etc. sites: | 1200 mm | 1200/1050 mm |
|  | LV Cables across domestic, public open spaces, church, school etc. sites: | 900 mm | 900/750 mm |

1. Where the above conditions cannot be met the Engineer may approve one of the following:
2. Cement slabs over the cables or
3. Cable duct pipe encased in 300 mm square concrete
4. Reference must be made to detailed specifications relative to road crossings and trenching.
5. MARKING OF CABLES
6. All cable joints and route markers shall be approximately 250 mm long and 150 x 140 mm at the base and 100 x 80 mm at the top.
7. Cast into the top of the cable marker shall be an 80 x 60 mm x 1.6 mm stainless steel insert on which the details of the cable shall be clearly stamped. Insert to be notched to assist holding.
8. Letter sizes on route markers shall be approximately 10 mm minimum.
9. Joints shall be marked showing sizes of the cable, as well as to voltage, i.e.:
10. 150 LV Joint
11. 35 11 kV Joint
12. Route markers shall show the direction of the cable run, the size of the cable and the number of cores:
13. 150 LV Cable
14. 35 11kV Cable
15. Cable route markers shall be placed at:
16. Approximately every 30 meters along a straight run and
17. Above every change of direction of the cable
18. Where cables terminate at a substation of a kiosk, the cable shall be marked by means of 10 mm wide of copper or stainless stee strap fixed approximately 500 mm above ground level showing the circuit designation with reference to the drawing. PVC or plastic markers will not be permitted.
19. PROTECTION OF CABLES
20. Where 11 000 Volt or higher voltage cables are installed then the cable shall be covered with cement slabs or bricks as detailed in Bill of Quantities. The cement slabs shall be approximately 300 mm wide x 50 mm thick.
21. The cement slabs or bricks shall be approximately 300 mm above the HV Cable.
22. All cables shall be covered with the 300 mm wide PVC danger tape irrespective of any other protection required.
23. The PVC danger tape shall be placed approximately 300 mm below natural ground level.
24. VC danger tape shall be 300 mm wide, 800 gauge thick and printed with the words, DANGER, GEVAAR, INGOZI, plus the skull and crossbones.
25. MEASUREMENT OF CABLES
26. Quantities as shown on the Bill of Quantities are approximate and the successful tenderer shall physically measure the route on site before ordering his cable.
27. All surplus cable at the end of the contract must be removed by the Contractor and the quantities for payment will be adjusted accordingly.
28. Cables shall be measured by the Clerk of Works by means of a measuring wheel once the trenches have been closed.
29. In addition to the cable lengths measured in the trenches, the following slack will be allowed:
30. Slack in cable trenches + ½ %
31. 11 kV at mini-substations + 3 m
32. 11 kV at brick substations actual measurement
33. 11 kV at overhead poles + 10 m
34. THERMAL RESISTIVITY
35. Cable carrying capacity is affected by the thermal resistivity of the substances encountered.
36. The following table of values shall be used:

Therm. Res. CmW-1

Water-logged ground 0.50

Concrete 0.90

Gravel 1.00

Sandy Soil 1.20

1. POSITION OF CABLES
2. The centre line of the trench for a single cable shall be 1000 mm from the official property boundary line pegs (fences may not be correct) unless written instructions to the contrary are issued.
3. Where two or more cables are placed in a single trench and the cable are spaced at 150 mm centres, then the trench centre line shall be 1000 mm from the official property boundary line pegs.

PTC

### PTC: POWER TRANSFORMERS

1. GENERAL

This specification comprises the manufacture, testing, delivery to site, offloading, placing in position, filling with oil, purifying, commissioning and guarantee of the under mentioned transformer(s).

* 1. The transformer(s) shall comply with the following standards:

IEC 60076 : Power transformers

IEC 354 : Loading guide for oil immersed transformers

BS 3523 : Silica gel, cobalt chloride impregnated

BS 4360 : Weldable structural steels

IEC 137 : Bushings for alternating voltage above 1000 V

IEC 185 : Current Transformers

IEC 186 : Voltage Transformers

SANS 555 : Insulating oils for transformers and switchgear

SANS 780 : Distribution transformers

SANS 948 : Three phase induction motors

SANS 1035 : Insulated Bushings

SANS 1189 : Single phase induction motors

* 1. Transformers complying with standards other than those specified may be considered provided it is clearly indicated in which respects the equipment differs from the requirements of the relevant recommendations or standards.
  2. Unless otherwise stated all power transformers shall be designed to operate at a normal supply frequency of 50Hz, up to an altitude of 1 800 m, and shall be capable of withstanding overloads without damage or reduction in life expectancy in accordance with IEC 354.

1. CORE AND WINDINGS
   1. Where core laminations are divided into sections which are insulated from each other, the individual sections shall be electrically bonded together by means of tinned copper bridging straps.
   2. The transformer magnetic circuit shall be earthed to the core clamping structure at one point only. The bonding shall be effected by means of a single removable tinned copper link which shall be made readily accessible through a removable inspection cover in the top of the transformer tank.
   3. All electrical bonding straps shall be suitable proportioned so as to be able to withstand all likely fault currents without damage.
2. POWER TERMINALS
   1. Transformer power terminals shall be positioned and marked in accordance with the requirements of IEC 76. Terminal markings shall be of a permanent nature taking the form of relief characters of steel or brass welded or brazed to the tank.
   2. All bushings shall comply with SANS 1035.
3. TANK
   1. Unless otherwise stated, constructional steel plate, bar and section shall comply with BS 4360.
   2. The design of the transformer tank and components shall be such that water cannot be retained anywhere on the external surfaces.
   3. The transformer tank and components shall have adequate mechanical strength and rigidity to permit the entire transformer, filled with oil, to be lifted, jacked, transported and hauled in any direction without sustaining structural damage.
   4. The transformer tank and all components shall be capable of sustaining a full internal vacuum at sea level without suffering any permanent distortion.
   5. The transformer tank compartment shall be fitted with at least two “oil maintenance” valves, the one valve shall be accessibly positioned at the lowest point of the compartment and the other shall be accessibly positioned diagonally opposite at the highest point of the compartment. Oil maintenance valves shall be adequately protected against all possible damage during transport, installation and in service.
   6. All valve throats communicating directly with the atmosphere shall be suitably blanked off by means of gasketed blanking plates or screwed caps.
   7. The transformer tank cover shall be so arranged that its removal may be effected without having to lift the core.
   8. The interior and exterior surfaces of the tank, the tank cover and conservator, (when fitted) shall be suitably protected against corrosion.

1. CONSERVATOR
   1. If a conservator is required it shall comply with SANS 780.
   2. Unless otherwise approved the oil level of each independent transformer compartment shall be maintained by its own oil conservator.
   3. The conservator compartment is to be provided with an oil level indicator, a drain valve at its lowest point and a filling point, effectively sealed from the atmosphere when not in use. Each conservator outlet line shall be provided with an isolating valve attached by a bolted flanged joint.
   4. Interconnecting pipework shall be adequately sized and made as direct as possible, elbow bends will not be accepted and joints shall be welded.
   5. All conservators shall be provided with a set of potential free, normally open, low level alarm contacts operating at the minimum oil level.
2. ACCESSORIES
   1. Oil level indicators shall either be of the sight glass or dial type. Where “sight glass” indicators are employed, adequate protection shall be afforded to the tubes to prevent their breakage. Unprotected tubes will not be accepted. Unless specifically agreed with the Engineer, “sight glass” oil level indicators shall be manufactured from glass. Where dial type level indicators are employed they shall be of the magnetically operated type where breaking of the dial will not expose the insulating oil to the atmosphere.
   2. If required the transformer(s) shall be provided with gas and oil actuated relays. The relay shall be positioned between the transformer tank and conservator such that there are at least five pipe diameters of straight pipe on the transformer side of the relay and three on the conservator side, furthermore, that the section of the pipe including the relay shall slope up to the conservator at an angle of 50. The gas and oil operated relay shall provide both alarm and trip signals for increasing amounts of gas and a trip signal for oil surges. All gas and oil operated relays shall be provided with trip testing facilities which operate directly on the float mechanisms.
   3. The transformer(s) shall be fitted with a pressure relief device which is to prevent the rupturing of the transformer tank under internal fault conditions. The pressure relief device shall be capable of withstanding atmospheric sea level pressure whilst sustaining full vacuum inside the transformer tank. The pressure relief device shall be fitted with a set of electrical contacts which may be used to indicate that the device has operated.
   4. Stainless steel thermometer pockets shall be provided for temperature sensing and they shall be fitted with covers or captive screw caps.
   5. Where winding temperature thermometers and relays are required, they shall be supplied with the necessary current transformers, heaters, etc.
   6. All rating and diagram plates shall be fabricated from stainless steel not less than 1,5 mm thick and shall be fixed in position by means of stainless steel rivets. The rating and diagram plates shall be fixed to a purpose made mounting pad displayed in a prominent position not more than 1,5 mm above ground level.
   7. Information shall be recorded on the rating and diagram plates by deep engraving with the recessions contrasted with baked black paint or black anodizing.
3. TAPS
   1. The transformer(s) shall be provided with taps on the higher voltage windings to vary the secondary voltage at no load by +5%, +2,5%, 0, -2,5%, -5% unless otherwise noted and the transformer(s) shall be capable of delivering rated power in any tap position.
   2. If on-load tap changing gear is required, it shall be provided as detailed in Section TD.
4. COOLING
   1. Cooling arrangements for the various categories of transformers shall be as follows:
      1. ONAN for transformers up to 20 MVA continuous rating,
      2. ONAN, ONAN/ONAF OFAN or OFAF for larger transformers.

Where mixed cooling is specified the naturally cooled rating of each of the main windings shall be 60% of the rated power.

* 1. The transformer oil to air heat exchanger shall consist of detachable radiator units. The radiators shall be provided with lifting lugs, vent plugs at their highest points and drain plugs at their lowest points. The radiators shall be attached to the transformer tank by means of bolted flanged joints and isolating valves shall be included in each of the transformer/radiator interconnecting lines.
  2. Consideration must be given to the radiator/radiator and radiator/tank clearances with respect to maintenance operations such as painting and cleaning.
  3. Separately mounted cooler units may be considered providing that the requirements for vent and drain plugs, flanged joints and isolating valves are observed. Further, approved expansion couplings shall be employed in the transformer/cooler connecting lines.
  4. Where forced air cooling is employed fans shall be of the slow speed type. Fans and associated ducting shall be made from suitable corrosion resistant material and shall be designed to minimize noise and vibration. All fans shall be provided with galvanized wire-mesh guards. Fans shall not require concrete foundations.
  5. Fan motors shall either be 3 phase 400 volt 50 Hz units or single phase 230 volt 50 Hz units with continuously rated start windings and no centrifugal switches, or as otherwise noted.
  6. Motors shall comply with standard specification SANS 948 or SANS 1189 and shall be provided with the necessary contactors, overloads and lockable isolators as approved by the Engineer.
  7. Forced cooling shall be fully automatic and shall be controlled by the temperature of the transformer windings. The forced cooling control thermometer shall be provided with adjustable switch contacts - the range of adjustment shall be approved by the Engineer.

1. CURRENT AND VOLTAGE TRANSFORMERS
   1. The number of inbuilt current and voltage transformers, their ratios, classes and ratings shall be as enumerated in the Project Specification.
   2. Unless otherwise specified, current transformers shall comply with IEC Publication 185 and voltage transformers with IEC Publication 186.
   3. Current transformers shall preferably be of the bushing type. Where separately mounted current transformers are employed, they shall be mounted above the core and windings of the power transformer(s) and shall be easily removable.
   4. A nameplate shall be provided for each and every inbuilt voltage and current transformer. The nameplates shall include all information necessary to fully specify the devices and shall be displayed in a prominent position near to the power transformer(s) nameplate.
2. AUXILIARY SUPPLIES, WIRING AND EQUIPMENT CUBICLES
   1. The auxiliary supply voltage will be three phase, 400 volt, 4 wire, 50 Hz a.c., or as otherwise noted.
   2. The alarm and tripping circuits supply voltage will be 110 V d.c.
   3. All transformer equipment such as voltage regulators, tap changer equipment, cooler controls etc. shall be accommodated in equipment cubicles. All transformer equipment such as gas and oil operated relays, pressure switches, temperature relays, etc. shall be wired to a central wiring cubicle.
   4. Wiring and equipment cubicles shall be ventilated, dust-proof, weather-proof, vermin-proof and lockable. They shall be mounted in readily accessible positions and shall be fitted with separately fused 230 V a.c. anti-condensation heaters and separately fused 230 V interior lights switched by door operated micro-switches. Cubicles shall be adequately dimensioned so that work may be carried out in them unhindered.
   5. All wiring and equipment cubicles shall be of the bottom entry type, and they shall each be provided with sufficient “terminal block rail” to accommodate sufficient screw-type spring-attached terminal blocks to cover 120% of the requirements of the box.
   6. Circuit devices contained in the equipment cubicles shall be permanently marked in accordance with the wiring and schematic diagrams and schedules.
   7. All wires in the wiring cubicles shall be permanently marked at each end in accordance with the wiring and schematic diagrams. The wiring shall be copper of minimum cross-sectional area of 2,5 mm² and shall be neatly run in closed wiring channels.
   8. Not more than two wires shall be accommodated in each screw terminal block and each shall be terminated by means of a crimped hook or spade lug crimped in accordance with the manufacturer’s recommendations.
   9. Interconnection between gas operated relays etc. and the central wiring cubicle shall be effected by means of armoured cable or wires in conduit, in either case, the minimum copper cross sectional area shall be 2,5 mm² . Cables and cores shall be permanently marked at each end in accordance with the wiring and schematic diagrams; likewise wires in conduit shall be permanently marked at each end. Cables and conduit shall be rigidly cleated along their lengths and shall have a neat appearance.
3. PROTECTION AGAINST CORROSION
   1. All transformer surfaces shall be suitably protected against corrosion in accordance with SANS 780.
   2. The interior and exterior surfaces of all wiring and equipment cubicles fabricated from metal shall be corrosion proofed. The finished interior colour of all wiring and equipment cubicles shall be white.
4. EARTHING
   1. The transformer(s) shall be fitted with an earthing terminal near each corner of the tank and not more than 300 mm above the base. The earthing terminals shall be welded to the transformer tank and shall not obstruct or be damaged by jacking or hauling operations. The earthing terminals shall comply with SANS 780 and shall be heavily galvanized on the surfaces where electrical contact is required to be made. Electrical connection to the earthing terminal shall be effected by means of an approved clamping arrangement.
   2. When the transformer(s) is installed the tank and any winding neutral shall be connected to the installation earth as directed by the Engineer.
5. INSULATING OIL
   1. The transformer manufacturer is to supply sufficient insulating oil complying with SANS 555 to fill the transformer, cooling system and tap changer compartment.
   2. Insulating oils shall only communicate with the atmosphere by means of dehydrating breathers. The dehydrating breather shall employ cobalt impregnated silica gel complying with specification BS 3523. The breathers shall contain silica gel in the ratio of 1 kg per 3 000 litres of insulating oil. The maximum quantity of desiccant contained by a single breather shall be limited to 12,5 kg. Breather shall be so designed that the desiccant is only in contact with the atmosphere whilst the transformer is actually breathing i.e. an oil type seal or similar is to be employed.
   3. For transformers with windings rated at 132 kV and above, the water content of oil samples taken from any part of the transformer shall not contain more than 10 parts per million at the time of handing over.
   4. Where the transformer manufacturer requires that oil filling be effected under vacuum, such instruction shall be prominently displayed on the power transformer nameplate.
6. INSPECTION AND TESTING
   1. The Engineers may inspect the transformer and equipment during manufacture and prior to delivery.
   2. The Engineers may be present during testing and shall be notified in writing at least one week before testing commences.
   3. The following test are required to be carried out:
      1. Routine tests as specified in the IEC 76,
      2. Routine tests as may be required by the Engineer on the tap changing and voltage control equipment.
   4. Tenderers shall provide with the tender, evidence of having previously type tested a similar unit, failing which a price shall be quoted for each type test which, if required by the Engineer, will be added to the tender price.
7. INFORMATION TO BE SUPPLIED
   1. The Contractor is required to submit the following drawings to the Engineer for approval before commencing with the manufacture of the transformer(s).

General arrangement of the transformer(s) and cooling system.

Internal assembly of the transformer(s) showing core lamping, winding, clamping and connection arrangement.

Internal assembly of all equipment and wiring cubicles.

Schematic drawings of all protection, control and power circuits.

Wiring diagrams and schedules for all protection and control circuits.

Diagram and rating nameplate.

* 1. The Contractor is also required to hand over with the transformer, three copies of erection, operating and maintenance instructions.

1. GUARANTEE
   1. Tenderers shall give a 12 months guarantee to replace, free of charge, any portion of the transformer(s) and ancillary equipment in which any manufacturing defects may develop within that period. Such period will commence from the date on which the transformer(s) is put into commission.
2. CAPITALISATION OF TRANSFORMER LOSSES
   1. The adjudication of tenders will be influenced by the cost of capitalized losses over the life of the transformer.
   2. The capitalization of transformer losses shall be based on the following formula:

V = A + C

1 Po + C2 Pc

Where: V = Transformer

A = Cost of purchasing and installing transformer (R)

C¹ = Capitalized cost of no load losses

Pº = No load losses (kW)

C² = Capitalized cost of load losses

Pc = Load losses (kW)

PE

### PE: EARTHING OF SWITCHGEAR AND EQUIPMENT

1. SCOPE

This specification covers the requirements for the earthing of the following:

Substations

MV Switchgear

Cable Networks

Overhead Line Networks

Service Connections

Streetlights and High Mast Lights

MV Yard Earth Mats

Substations Lightning

Earth resistance tests shall be performed to determine the values of the high and low voltage earths. If the required values cannot be obtained with the proposed earthing methods, 16 mm diameter earth spikes, “Copperweld” or equivalent, shall be installed and connected to the earth conductors by means of “Cadweld” or equivalent jointing. The position of earth spikes will be determined by the Engineer.

The additional cost for the installation of supplementary earthing will be covered by contingencies.

1. APPLICABLE STANDARDS

The latest edition of the following publications, drawings and documents are applicable:

SANS 0142 : Wiring of Premises

AMEU : Code of Practice for the neutral earthing of low voltage distribution system

SANS 0199 : Earth electrodes, design and installation

NRS 016 : Code of practice for earthing of low voltage distribution systems

SANS 1063 : Earth bars (mechanical), couplers, clamps (mechanical)

Occupational Health and Safety Act (85 of 1993)

1. DEFINITIONS

The meaning of certain words or terms used in this specification:

**Earth Continuity Conductor**: An electrical conductor, copper or other similar approved metal of sufficient cross sectional area to ensure the immediate safe discharge or electrical energy to the general mass of earth.

**Earth Conductor, Earth Wire**: Generally accepted terms for an earth continuity conductor.

**Earth Point**: The creation of a direct bond between the mass and the earthing network of a system to be earthed. This may consist of earth spike(s) or earth mat(s) or a combination of both driven in or laid at a sufficient depth to make contact with earth formations of low resistivity in order to safely discharge electrical energy.

**Earth Spike**: A metal rod driven into the ground to create an earth point. An earth spike may also consist of a number of separate lengths mechanically coupled to from a unit.

**Trench Earthing**: A section of bare conductor buried in the ground at a minimum depth of 600 mm and of sufficient length to obtain the required resistance.

**Earthing Electrode**: A conductor buried or driven into the ground to make contract with the earth mass. This term includes earth spikes, mats and trench earthing.

**Earth Bar**: A length of copper or brass bar of suitable or specified dimensions and cross sectional area and having sufficient connection points for the mechanical connection of earth conductors by means of bolts, nuts or screws, as the case may be.

1. ABBREVIATIONS

The following abbreviations shall apply:

EC : Earth Conductor

EB : Earth Bar

ES : Earth Spike

ECC : Earth Continuity Conductor

BCEC : Bare Copper Earth Conductor

1. MATERIAL
   1. CONDUCTORS
      1. Underground Distribution Networks: Only materials manufactured from or combined with electrolytic copper shall be used on the earthing systems of underground reticulation and internal wiring. BCEC serving as trench earthing shall be hard drawn copper.
      2. Overhead Distribution Systems: Where earth conductors of overhead systems are required to be of material other than copper, they shall be manufactured in accordance with the Engineer’s Specification. The materials may be steel reinforced aluminum alloy or galvanized steel wire.
   2. CONNECTIONS

Connections to earth studs or earth bars shall be made with brass bolts, nuts and washers or alternatively with stainless steel accessories. Connections to equipment housed indoors may be made with cadmium plated accessories. However, cadmium plated accessories may not be used on equipment such as kiosks, mini substations etc.

* 1. EARTH SPIKES
     1. Category and Type: Earth spikes shall be of the following types:
        1. Solid Copper
        2. Solid Stainless Steel
        3. A solid steel core covered with copper of minimum thickness of 200 microns, similar or equal to “Copperweld”. Earth spikes shall be round in cross-section and the total length shall be achieved by the joining of standard sections.

Spikes shall have a nominal diameter 0f 16 mm, except where spikes are placed into pre-drilled holes in which case a nominal diameter of 12 mm will be accepted.

* + 1. Earth spikes shall comply with the requirements of SANS 1063.
    2. Couplings: The coupling of lengths shall be achieved by means of screw-on type couplings. The couplings shall be me mechanically strong enough to allow the normal driving in of coupled lengths and shall provide sound electrical connections.
    3. Clamps: Conductor clamps shall suit the type of earth spike, conductor material and size specified.
    4. Driving caps or nuts: Driving caps or nuts shall be screwed onto the spike to protect the spike end during driving.

1. INSTALLATION
   1. GENERAL
      1. Trench Earths: Trench earths shall consist of sections of hard drawn bare copper conductors laid in trenches with MV or LV cables or in separate trenches at a depth of 750 mm below finished ground level.

Trench earths shall be a minimum length of 25 m.

Where the distance between kiosks and other equipment is less than 50 m, the trench earth shall be installed from kiosk to kiosk.

Trench earths shall be installed in the trenches nearest to the substations.

The following standard earth conductor sizes shall be used in conjunction with LV cables:

TABLE 6.1:

|  |  |  |
| --- | --- | --- |
| EARTH CONDUCTOR SIZE IN mm2 | CABLES | |
| AL | Cu |
| 16 | 35, 50 | 10, 16 |
| 35 | 70, 95 | 25, 35, 50 |
| 70 | 120, 150, 185 | 70, 95, 120 |
| 120 | 240 | 150 plus |

Trench earths shall be installed as earthing for the following installations:

* For neutral earthing of transformers
* Miniature Substations
* LV distribution boards in Substations
* Distribution- / Meter Kiosks
* Services connections
* All electrical equipment with metal enclosures (streetlight poles, robot poles, etc.) installed in public places
* Overhead line equipment (for example lightning arrestors)
  + 1. Spike Earth: Spike earths shall consist of a single earth spike or coupled lengths of the total length to require the specified resistance. The spike shall be driven into the ground until the top end of the spike is at a depth of 600 mm below ground level.
    2. The conductor clamp shall be suitable for clamping conductors with a total effective cross sectional area of up to 100 mm2. All connections to earth spikes shall be clamped and then brazed. The connection shall be painted to an approved standard approved standard after all excess flux has been removed.

A marker or earthing manhole shall be placed above the earth spike if so required in the Project Specification. The earthing manhole shall have a removable concrete lid and shall be approximately 350 mm high, 460 mm long and 460 mm wide. In addition, the Contractor shall supply and install a 110 mm outside diameter Class 4 PVC pipe, 300 mm long, over all earth spikes such that the connection to the earth spike is visible. The earthing manhole shall be installed over this pipe, flush with finished ground level.

Should hard rock formation be encountered, it may be necessary to drill holes to position earth spikes. The hole shall have a diameter large enough to accommodate the earth spike and coupling without the latter occupying more than 50 % of the volume of the hole. The hole shall be filled with a carbon coke/soil mixture (50/50) during and after the installation of the spike. The length of the spike and therefore the depth of the hole shall be as required by the Engineer.

* + 1. Pole Base Earths: Pole base earths shall consist of hard drawn copper earth conductor installed against the pole, with the conductor coiled not less than four times around the buried section of the pole and stapled in position. The conductor shall be protected by a 32 mm inside diameter galvanized medium water pipe from 300 mm below ground level to 3 m above ground level. The pipe and conductor shall be fixed to the pole by means of stainless steel strapping spaced at 600 mm intervals.

The size of the earth conductor shall be 70 mm2 for both MV and LV earth systems.

* + 1. Ohmic values of earthing resistance: The required maximum ohmic values of the resistance to earth of earth points are as follows:

Transformer neutrals : 1 to 2 ohm

MV Switchgear (indoor or outdoor) : 2 ohm

MV Pole-mounted equipment and surge arresters : 3 ohm

LV Distribution neutral at kiosks or on overhead lines

(start and end points) : 10 ohm

Customer installations : 20 ohm

* 1. INTERCONNECTION OF VARIOUS EARTH SYSTEMS
     1. Surge Arrestor Earths: The earth system of surge arrestors shall at all times be separated from any other system.
     2. MV and LV Earth Systems: These systems shall only be interconnected if the individual earth resistance is in the order of 1 ohm or less.
  2. SUBSTATIONS
     1. Transformers on Bases or Poles, MV and LV Windings:
        1. Earth Points: separate earth points shall be created for MV and LV systems, except where individual resistance to earth are found to be 1 ohm or less in which case only one earth point may be utilized. The earth point shall consist of two separate 70 mm2 trench earths, 750 mm deep with a minimum length of 25 m laid in opposite directions. MV and LV earth points shall be separated by a minimum distance of 6 m should both earth types be necessary.
        2. Connections: All connections between equipment and earth points shall be done in 70 mm2 green PVC insulated stranded copper. The connection between the transformer neutral and the neutral bar in the LV distribution kiosk or distribution board shall be effected by means of the fourth core of the multi core cable connecting the transformer to the LV distribution system or by means of the neutral conductor where single core cables are employed.

A 70 mm2 copper conductor shall connect the neutral bar to the earth bar in the distribution kiosk or distribution board.

Connections between the earth bar in the LV distribution kiosk or distribution board and to the neutral conductor of LV overhead installations shall be effected by means of 50 mm2 green PVC insulated stranded copper conductors.

* + 1. Mini Substations

The earthing of mini substations shall comply with the requirements for transformers on bases as stated above. All metal parts of the various compartments shall be bonded by means of 70 mm2 bare copper conductors and connected to the MV earth system.

* + 1. Fence Earths
       1. Earth Conductors and Spikes: A 16 mm2 copper earth conductor shall be buried at a depth of 750 mm and at a distance of 1 m outside the fence for the full circumference of the fence. Earth spikes shall be installed at each corner and connected to the abovementioned earth conductor.
       2. Installation: Vertical earth conductors shall be installed on the fence at all corner and gate posts and at intervals of 20 m. These vertical conductors shall be solidly bonded to the straining and barbed wire by means of binding wire. 16 mm2 Copper conductors shall be used (or Mosquito aluminum conductor on aluminum fences).
       3. Connections: The vertical copper conductors shall be connected to the surrounding trench earth by coiling them 4 times around the trench earth conductor before brazing. Aluminum conductors shall be connected by means of bi-metal clamps. Aluminum conductors shall not be buried and copper connectors shall be used to connect underground conductors to the aluminum conductors of the fence earths.
       4. Gates: Gates shall be connected to the earth system by means of braided copper wire, bolted to the gate frame and bonded to the vertical copper of aluminum fence earths.
  1. MV SWITCHGEAR INSIDE CONTROL BUILDINGS
     1. Earth Grid: Two 70 mm2 stranded bare copper conductors shall be installed right around the building in a 1000 mm deep x 500 mm wide trench.

The two conductors shall be separated by 300 mm and be bonded every 3 m to form an earth grid. Joints shall be brazed, exothermically welded (“Cadweld”) or made by other means approved by the Engineer.

* + 1. Earth Bar: A tinned pre-drilled copper bus bar (1000 mm x 40 mm x 5 mm) shall be mounted on isolators against the back wall of the concrete cable trench. All earth conductors from installed equipment and from earth systems shall be connected to this bar by means of brass or stainless steel bolts and nuts. Where the switchgear has its own continuous earth bar the earth bar may be omitted.

* + 1. Connections: Connections between the equipment and the earth bar shall be by means of 120 mm2 green PVC insulated copper connections with crimped cable lugs. A minimum of two connections to the earth bar shall be utilized per switchgear installation.

Connections between the earth grid and earth bar shall be by means of 3 separate 70 mm2 stranded bare copper conductors connected to three equally spaced points on the earth grid.

* 1. CABLE NETWORKS
     1. Armoring of LV Cables:

The cable armoring shall be bonded to the earth bus bar or earth stud at all terminations. Where cables are terminated on gland plates, the plates shall be connected to the earth system and the cable armoring shall then be deemed to be earthed.

Where cables are not terminated with glands, enough cable armoring wires shall be grouped together to fit tightly into a cable lug. After the lug has been crimped it shall be bolted to the earth system. A cable lug of 16 mm2 minimum shall be used for cables up to 50 mm2 and 25 mm2 minimum for cables larger than 50 mm2. At LV overhead line connections, the cable armoring shall be connected to the neutral conductor by means of a suitable clamp.

* + 1. Meter and Distribution Kiosks:

Meter and distribution kiosks shall be supplied complete with a connection between the neutral bar and earth bar or stud. Earthing systems, whether spike or trench earths, shall be bolted to the earth stud or bar utilizing crimp lugs and stainless steel or brass nuts and washers.

* 1. OVERHEAD NETWORKS
     1. Earthing of the Neutral Conductor on LV Overhead System (Also refer 6.3.1):

The neutral conductor of LV overhead systems shall be earthed at both ends of the line. The method of earthing shall be 70 mm2 trench earthing unless otherwise specified in the Project Specification.

When MV earth systems appear on the same pole, the LV earth system shall be connected to the neutral conductor by means of green PVC insulated conductors and LV and MV earth system points shall be separated by a minimum of 6 m.

The connecting conductor size shall be a minimum of 50 mm2 for PVC insulated conductors and 25 mm2 the case of hard drawn copper conductors.

* + 1. Earthing of MV Equipment on Overhead Networks:
       1. General: MV earthing shall be carried out with 70 mm2 bare copper. Where MV and LV earthing appear on the same pole or poles, insulted conductors shall be used and LV and MV earth system points shall be separated by at least 6 m.
       2. Surge Arrestors: Surge arrestors shall be connected to a dedicated 70 mm2 trench earthing system point via a 70 mm2 bare copper conductor. Only one conductor is required per set of surge arrestors.
       3. Operator Earths: An earth mat shall be installed at the operating position of outdoor switchgear. The earth mat shall measure 1 m x 1 m and shall be manufactured of 10 mm diameter black copper rods to form a mesh size of 200 mm. Joints shall be brazed or exothermically welded. The mat shall be buried at a depth of 150 mm below the operating position and connected to the operating handle by means of two 70 mm2 green PVC insulated conductors.
       4. Earth Connections: All earth points of steel work of MV equipment including support steel work on MV poles, shall be bonded with 70 mm2 conductor (refer 6.6.2.1) and connected to the earth system.

Exceptions are surge arrestor earthing and operator earthing which are not connected to MV earth systems, but to the dedicated earth systems described above.

Any pole(s) bearing the following equipment or combination thereof shall be provided with a MB earth system:

* Transformer
* Instrument or measuring transformers
* Air break switches
* Single pole isolating links
* Drop out fuses
* MV cable ends
* Switchgear
  + 1. Binding and Protection or Earth Conductors:

Earth conductors shall be installed against poles in suitable size galvanized medium water pipe or Class 12 HDPE pipes in accordance with SANS 533, as specified in the Project Specification.

The pipe protection shall start 300 mm below finished ground level and end 3 m above ground level. The pipe with the conductor shall be strapped to the pole at intervals of 600 mm using stainless steel strapping. The Contractor shall ensure that earth systems are kept separate and that MV and LV or MV and surge arrestor earths are not short-circuited by the strapping.

* 1. SERVICE CONNECTIONS
     1. Trench Earths:

Hard drawn bare copper earth conductors shall be installed in cable trenches together with service connection cables. The earth conductors shall have a size as indicated in Table 6.1 and a minimum length of 25 m, installed at a minimum depth of 750 mm. If the distance between the consumer supply point and distribution point is less than 25 m, the earth conductor shall be bonded to the main distribution’s earth conductor.

* + 1. Connections:

Earth conductors installed with service connection cables shall generally be connected to the system neutral at the customer’s supply point. The Contractor shall acquaint himself with the specific earthing system in use by the Supply Authority and do connections accordingly.

* 1. STREETLIGHTS AND HIGH MAST LIGHTS
     1. Streetlights:
        1. Cable installations: Where streetlights are supplied via underground cables, the armoring shall be connected to the streetlight earth terminal. The armoring of the various cable runs shall be bonded at all connection points to create a continuous earth. The armoring of cables shall be connected to LV earth systems at substations and distribution kiosks.

Where steel poles are employed, 16 mm2 BC trench earth conductor shall be installed and connected to the streetlight pole earth terminal. The earth- and neutral terminals shall not be interconnected at streetlight poles.

* + - 1. Overhead Networks: The earth terminal of the streetlight fitting as well as the metal parts of the streetlight arm shall be connected to the neutral conductor by means of a separate 6 mm2 bare copper earth conductor. The earth terminal and the neutral terminal shall not be interconnected inside the light fitting. The same method shall be used where bundle conductor systems are employed.

* + 1. High Mast Lighting:
       1. Mast Earthing: Unless stated otherwise in the Project Specification, at least 15 m of 70 mm2 hard drawn bare copper earth conductor shall be placed at the bottom of the excavations for the high mast base. Prior to the earthing of the concrete base the earth conductor shall be covered with a 150 mm layer of soil to prevent the copper conductor from touching the concrete.
       2. Spike Earthing: A 1200 mm long solid copper earth spike shall be provided in the ground adjacent to the high-mast base. The mast earth terminal and earth spike shall be interconnected with a 70 mm2 bare stranded copper conductor. The connection to the earth spike shall be bolted and the connection to the mast shall be by means of an appropriate lug and a bolt.

Where an earth spike cannot be driven in due to rock, etc. a suitable trench earth shall be provided.

* + - 1. Trench Earth: Where a continuous trench earth (70 mm2, 25 m long at 750 mm deep) is specified in the Project Specification, the earth spike may be omitted and the mast connected direct to the trench earth.
      2. Special Measures: Due to the height of the masts and the increased possibility of a lightning strike, special earthing measures may be required by the Engineer and instructed on site.
  1. MV YARD EARTH MATS

Earth mats shall consist of 10 mm diameter annealed black copper rod buried 900 mm deep at 6 m intervals to form a 6 m x 6 m grid, unless otherwise specified in the Project Specifications.

Joints shall be brazed, exothermically welded (“Cadweld”) or made by other means approved by the Engineer.

At each of the four corners of the square or rectangular grid forming the earth mat 1200 mm earth spikes shall be driven form 900 mm below finished ground level. The earth spikes shall be connected to the earth mat via 70 mm2 BC earth conductors.

* 1. SUBSTATIONS LIGHTING MASTS
     1. Spike Earthing: A 1200 mm long solid copper earth spike shall be provided in the ground adjacent to the mast base. The mast earth terminal and earth spike shall be interconnected with a 70 mm2 bare stranded copper conductor.

The connection to earth spike shall be bolted and the connection to the mast shall be by means of an appropriate lug and a bolt.

Where and earth spike cannot be driven in due to rock, etc. a suitable trench earth shall be provided.

* + 1. Trench Earth: Where a continuous trench earth (70 mm2, 25 m long at 750 mm deep) is specified in the Project Specification, the earth spike may be omitted and the mast connected direct to the trench earth.

1. MEASUREMENT OF EARTH RESISTANCE
   1. MEASURMENT

Earth resistance shall be measured in accordance with the four electrode bridge method i.e., according to the Schlumberger or Wenner principles. The Contractor shall provide the necessary test equipment and demonstrate the test method to the Engineer so that the Engineer can satisfy himself that the tests are being conducted correctly.

* 1. RECORDS

Resistance measurements shall be performed at all earth points i.e., at any apparatus or equipment connected to the earthing system. The Contractor shall record all measurements in detail and present these to the Engineer for approval. The Engineer reserves the right to have any 10 % of measurements repeated without additional payment, in order to establish their authenticity.

1. TESTS

The Contractor shall measure the resistance to earth of each earth system with the earth bar or earth point as reference. The Engineer shall be notified if the specified minimum values of earth resistance are exceeded or cannot be obtained.

# C3.4 HEALTH AND SAFETY

CONSTRUCTION HEALTH AND SAFETY SPECIFICATIONS

Project: **BULK AND ELECTRIFICATION of Ocean View Phase1 and 200 connections**

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CONSTRUCTION HEALTH AND SAFETY SPECIFICATION

1. INTRODUCTION AND BACKGROUND
   1. **Background to the Pre-construction Health and Safety Specification**

The Construction Regulations 2014 place the onus on the client to prepare a pre-construction Health & Safety Specification, highlighting all risks not successfully eliminated during design.

* 1. **Purpose of the Pre-construction Health and Safety Specification**

To assist in achieving compliance with the Occupational Health & Safety Act 85/1993 and the Now promulgated Construction Regulations 2014 in order to reduce incidents and Injuries. This pre-construction specification shall act as the basis for the drafting of the Construction phase health & safety plan.

The pre-construction specification sets out the requirements to be followed by the Principal Contractor and other Contractors so that the health & Safety of all persons potentially at risk may receive the same priority as other facets of the project e.g. cost, programme, environment, etc.

* 1. **Implementation of the Pre-construction Health and Safety Specification**

This specification forms an integral part of the contract, and the Contractor is required to use it at pre-tender phase when drawing up its project-specific construction phase health & safety plan, to be approved by the Client or his appointed representative before commencement of construction work. The principal contractor shall forward a copy of this specification to all Contractors at their bidding stage so that they can in turn prepare health & safety plans relating to their operations.

Note: It is still and will be the responsibility of every Professional consultant, contractor, sub-contractor and services provider to make themselves conversant with the various Acts pertaining to their profession at all times. This document does not purport to be an exhaustive canvassing of all issues and duties imposed by the Occupational Health and Safety Act, Act 85 of 1993 of Regulations governing the duties and obligations of a contractor performing duties i.t.o. an agreement with the client. The various duties imposed on a contractor are more fully described in the OHS Act, Act 85 of 1993 and its regulations and the contractor should acquaint himself therewith before commencing with any work

1. PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION
   1. **Scope**

This Specification covers the requirements of eliminating and mitigating incidents and injuries on the particular project. The scope also addresses legal compliance, hazard identification and risk assessment, risk control and promoting a health and safety culture amongst those working on the project. The specification also makes provision for the protection of those persons other than employees.

* 1. **Interpretations**
     1. Application

This specification is a compliance document drawn up in terms of South African legislation and is therefore binding. It must be read in conjunction with the relevant legislation as noted previously.

* + 1. Definitions

The definitions as listed in the Occupational Health & Safety Act 85/1993 and Construction Regulations 2014 shall apply.

* 1. **Minimum Administrative Requirements**
     1. Notification of Intention to Commence Construction Work

The Principal Contractor shall notify the Provincial Director of the Department of Labour, (Kouga), in writing on the prescribed form, before construction work commences. A copy of this notification shall be forwarded to the client on appointment.

* + 1. Assignment of Contractor’s Responsible Persons to Supervise Health and Safety on Site

The contractor shall submit supervisory appointments as well as any relevant appointments in writing (as stipulated by the OHS Act and Construction Regulations 2014), prior to commencement of work. Proof of competency must be included. See annexure B

* + 1. Competency for Contractor’s Appointed Competent Persons

Contractor’s competent persons for the various risk management portfolios shall fulfil the criteria as stipulated under the definition of Competent in accordance with the Construction Regulations 2014. Proof of competence for the various appointments must be included in the health and safety plan.

* + 1. Compensation of Occupational Injuries and Disease Act 130 of 1993 (COIDA / FEM)

The Principal Contractor shall submit a letter of good standing with its Compensation Insurer, to the client or his appointed representative, as proof of registration. Contractors shall submit proof of registration to the Principal Contractor before they commence work on site.

* + 1. Occupational Health and Safety Policy

The Principal Contractor and all Contractors shall submit a Health and Safety Policy signed by their Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented by the Company / Contractor.

* + 1. Health and Safety Organogram

The Principal Contractor and all Contractors shall submit an organogram, outlining the Health and Safety Site management Structure including the relevant appointments/competent persons and shareholders. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram shall be updated when there are any changes in the Site Management Structure.

* + 1. Preliminary Hazard Identifications and Risk Assessment and Progress Hazard Identification and Risk Assessment

The contractor shall cause a hazard identification to be performed by a competent person before commencement of construction work, and the assessed risks shall form part of the construction phase health and safety plan submitted for approval by the Client.

The risk assessment must include:

1. A list of hazards identified as well as potentially hazardous tasks
2. A documented risk assessment based on the list of hazards and tasks
3. A set of safe working procedures (method statements) to eliminate, reduce and/or control the risks assessed
4. A monitoring and review procedure of the risks assessment as the risks change. The principal contractor shall ensure that all employees and or contractors are informed, instructed and trained by a competent a competent person regarding any hazards, risks and related safe work procedures before any work commences and thereafter at regular intervals as the risk change and as new risks develop.

The Principal Contractor shall be responsible for ensuring that all persons who could be negatively affected by its operations are informed and trained according to the hazards and risks and are conversant with the safe work procedures, control measures and other related rules (toolbox talk strategy to be implemented). Posting appropriate signage regarding the dangers attached to the work and hazards identified must be posted at strategic places for everyone to see and be included in the method statement to be provided in the health and safety plan.

* + 1. Health and Safety Representative(s) (applicable when 20 or more persons are employed)

The Principal Contractor and all Contractors shall ensure that Health and Safety Representative(s) are appointed under consultation and trained to carry out their functions. The appointment must be in writing. The Health and Safety Representative shall carry out regular inspections, keep records and report all findings to the Responsible Person forthwith and at health & safety meetings.

* + 1. Health and Safety committees (applicable when 50 or more persons are employed)

The Principal Contractor shall ensure that project health and safety meetings are held monthly and minutes are kept on record Meetings must be organized and chaired by The Principal Contractor’s Responsible Person. All Contractors Responsible Persons and Health & Safety Representatives shall attend the monthly health & safety committees in accordance with the OHS Act 85/1993 and minutes of their meetings shall be forwarded to the Principal Contractor on a monthly basis.

* + 1. Health and Safety Training
       1. Introduction

The Principal Contractor shall ensure that all site personnel undergo a risk-specific health & safety induction training session before starting work. A record of attendance shall be kept in the health & safety file.

* + - 1. Awareness

The Principal Contractor shall ensure that, on site, periodic toolbox talk take place at least once per week. These talks should deal with risks relevant to the construction work at hand. A record of attendance shall be kept in the health & safety file. All Contractors have to comply with this minimum requirement.

* + - 1. All competent persons shall have the knowledge, experience , training and qualifications specific to the work they have been appointed to supervise, control, carry out. This will have to be assessed on a regular basis e.g. periodic audits by the Client, progress meetings, etc. The Principal Contractor is responsible to ensure that Competent Contractors are appointed to carry out construction work.
    1. General Record Keeping

The Principal Contractor and all Contractors shall keep and maintain Health and Safety (THE FILE) records to demonstrate compliance with this Specification, with the OHS Act 85/1993 , Construction Regulations 2014 and any other legislation applicable on site. The Principal Contractor shall ensure that all records of incidents/accidents, training, inspections, audits, etc., are kept in a health & safety file held in the site office.

The principal Contractor must ensure that every Contractor opens its own health & safety file, maintains the file and makes it available on request.

* + 1. Health and Safety Audits, Monitoring and Reporting

The client will conduct at least, a once monthly Health & Safety audit of the work operations including a full audit of physical site activities as well as an audit of the administration of health & safety. The Principal Contractor is obligated to conduct similar audits or all contractors appointed by it. Detailed reports of the audit findings and results shall be reported on at all levels of project management meetings/forums. Copies of the Client audit reports shall be kept in the Primary Project Health & Safety File while the Principal Contractor audit reports shall be kept in their File, a copy

being forwarded to the Client. Contractors have to audit their sub-contractors and keep records of these audits in their health & safety files, available on request. These audits must be conducted by a competent person.

* + 1. Emergency Procedures

The Principal Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following key elements:

* List of key competent personnel
* Details of emergency services
* Actions or steps to be taken in the event of the specific types of emergencies
* Information on hazardous material / situations
* Public and Road traffic control measures and signage
* Working close to, over or in water, river floods

Emergency procedure(s) shall include, but shall not be limited to , fire, spills, accidents to employees, use of hazardous substance, bomb threats, major incidents/ accidents, working close to over or in water, river floods etc. The Principal Contractor shall advise the Client in writing forthwith of any emergencies, together with a record of action taken.

A contact list of all service providers (Fire Department, Ambulance, Police, medical and Hospital, etc.) must by maintained and available to site Personnel.

* + 1. First Aid Boxes and First Aid Equipment

The Principal Contractor and all Contractors shall appoint in writing First Aider(s) as described in General Safety Regulations 3(4). The appointed First Aider(s) must be in possession of a valid certificate which are to be kept on site. The Principal Contractor shall provide an on-site First Aid Station with first aid facilities, including first aid boxes adequately stocked at all times. All contractors with more than 5 employees shall supply their own first aid box. Contractors with more than 10 employees shall have a trained, certified first aider on sit at all times.

* + 1. Accident / Incident Reporting and Investigation

Injuries are to be categorized into first aid; medical; disabling; and fatal. The Principal Contractor must stipulate in its construction phase health & safety plan how it will handle each of these categories. When reporting injuries to the Client, these categories shall be use. All injuries shall be investigated by the principal

Contractor, with a report being forwarded to the Client forthwith. All Contractors have to report on the 4 categories of injuries to the Principal Contractor at least monthly. The Principal Contractor must report all injuries to the Client in the form of a detailed injury report at least monthly.

* + 1. Hazards and Potential Situations

The Principal Contractor shall immediately notify other Contractors as well as the Clients Agent of any hazardous or potentially hazardous situations that may arise during performance of construction activities. Hazards to be taken into account:

* Machine Hazards
* Energy Hazards
* Material Handling Hazards
* Work Practices Hazards
* Water Hazards
* Working at Heights Hazards
* Moving Vehicle Hazards
* Hazardous Chemical Hazards
  + 1. Personal Protective Equipment (PPE) and Clothing

The Principal Contractor shall ensure that all workers are issued and wear appropriate PPE i.e., hard hats, safe Footwear, gloves, ear/ eye protection and overalls etc. Keep a record of the PPE issued and which must be signed by employees. The Principal Contractor and all Contractors shall make provision and keep adequate quantities of SANS approved PPE on site at all times. The Principal Contractor shall clearly outline procedures to be taken when PPE or Clothing is:

* Lost or Stolen
* Worn out or Damaged

The above procedure applies to Contractors and their Sub-contractors, as they are all Employees in their own right.

* + 1. Occupational Health and Safety Signage

The Contractor shall provide adequate on-site OHS signage. Including but not limited to: ‘Construction Site’, ‘no unauthorized entry’, ‘report to site office’, ‘site office’, Road traffic signage as per Manual 13, etc. Signage shall be posted at all entrances to site as well as on site in strategic locations e.g. access routes, entrances to structures and buildings, and other potential risk areas/operations (where and if applicable on the specific site and as directed by Client/ representative).

* + 1. Permits

Permits (PTW= Permit to Work) may include the following (as required and directed by Client’s agent):

* Use of Explosives and Blasting
* Work for which a fall prevention plan is required
* Use of Cradles
* Excavations, etc.
  + 1. Contractors and Sub-contractors

The Principal Contractor shall ensure that all Contractors under its control comply with this Specification, the OHS Act of 1993, Construction Regulations 2014 and all other relevant legislation that may relate to the activities directly or indirectly. The Contractor, when appointing other Contractors as ‘Sub-contractors’, shall mutatis mutandis ensure compliance.

* + 1. Incentives and Penalties

Certain incentives may be provided for on-going compliance to the provisions of the Construction phase health & safety plan submitted by the Principal Contractor. Penalties may be implemented for on-going non- compliance to the provisions of the Construction-phase health & safety plan as submitted by the Principal Contractor.

* 1. Physical Requirements
     1. Demolition Work (if any is required)

Prior to any demolition work being carried out, the Principal Contractor shall submit a safe working procedure and a detailed engineering survey for approval by the Client. Acceptance will then be issued to the Principal Contractor to proceed with the demolition work. The Principal Contractor shall ensure that demolition work complies with the Construction Regulations 2014.

* + 1. Excavations, Shoring, Dewatering or Drainage (when and when required)

The Principal Contractor and any relevant Contractors shall make provision in their tender for shoring, dewatering or drainage of any excavation as per this specification. The Contractor shall make sure that:

1. The excavation including shoring and bracing are inspected

* before every shift
* after every blasting operation
* after an unexpected fall or collapse of ground
* after substantial damage to supports
* after rain or bad weather

1. A record is kept and
2. Safe work procedure have been communicated to the workers
3. The safe work procedures are enforced and maintained by the Contractor’s Responsible Persons at all times
4. The requirements as per Regulation 13 of the Construction Regulations are adhered to
5. The required appointments are made in writing
   * 1. Edge Protection and Penetrations (where and when required)

The Principal Contractor must ensure that all exposed edges and openings are guarded and demarcated at all times until permanent protection has been erected. The Principal Contractor’s risk assessment must include these items. E.g. protection of decking edges, finished floor slab edges, stairways, floor penetrations, lift shafts, and all other openings and areas where a person may fall.

* + 1. Explosives and Blasting (where and if required)

The Principal Contractor shall ensure that the use of explosives and blasting (where required) be undertaken by a competent Contractor. A safe Work Procedure (SWP) must be submitted to the

Client for the approval before commencement of blasting work. The Client will issue a permit to authorize the operation.

* + 1. Piling (where and if required)

The Contractor shall ensure that piling is undertaken by a competent Contractor. A SWP shall be submitted to the Client for approval before commencement of this work.

* + 1. Stacking of Materials

The Principal Contractor and other relevant contractors shall ensure that there is an appointed staking supervisor and all materials. , all equipment is stacked and stored safely in a demarcated area.

* + 1. Speed Restrictions, Signage and Protection

The Principal Contractor shall ensure that all persons in its employ, all Contractors, and all those that are visiting the site are aware and comply with the site speed restriction(s). Separate vehicle and pedestrian access routes shall be provided, maintained, controlled, and enforced. Signage shall be provided and should comply as per OHS Act and the South African Road Traffic legislation with specific reference to Manual 13.

* + 1. Hazardous Chemical Substances (HCS)

The Principal Contractor and other relevant Contractors shall provide the necessary training and information regarding the use, transport, and storage of HCS. The Principal Contractor shall ensure that the use, transport, and storage of HCS is carried out as prescribed by the HCS Regulations. The Contractor shall ensure that all hazardous chemicals on site have a Material safety Data Sheet (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The First Aiders must be made aware of the MSDS and how to treat HCS incidents appropriately.

* + 1. Asbestos

Not applicable.

* + 1. Areas subjected to flush floods, strong winds and working near water

The Contractor must constantly monitor the prevailing weather patterns of the work area, stop work, remove employees when the area becomes unsafe and keep a daily record of such. The Contractor shall not allow any work to carry on if it becomes unsafe when the river water reach the work area.

No work shall be carried out in wind of a strength capable of making a person unsteady on his feet without special/adequate precautions being taken. No electrical powered tools and machinery to be used whilst working in water filled areas.

* 1. Plant and Machinery
     1. Construction Plant

“Construction Plant” includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment.

The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993, Driven Machinery Regulations and Construction Regulations 2014. The Principal Contractor and all relevant contractors shall inspect and keep records of inspections of the construction plant used on site. Only authorized/competent persons are to use machinery under proper supervision. Appropriate PPE and Clothing must be provided and maintained in good condition at all times.

* + 1. Vessels Under Pressure (VUP) and Gas Bottles

The Principal Contractor and all relevant Contractors shall comply with the Vessels under Pressure Regulations, including:

* Providing competency and awareness training to the operators
* Providing PPE or clothing
* Inspection equipment regularly and keep records of inspections
* Providing appropriate firefighting equipment (Fire Extinguishers) on hand
  + 1. Fire Extinguishers and Fire Fighting Equipment

The Principal Contractor and relevant Contractors shall provide adequate, regularly serviced firefighting equipment located at strategic points on site, specific to the classes of fire likely to occur. The appropriate notices and signs must be posted up as required.

* + 1. Hired Plant and Machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations 2014 shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file. All relevant Contractors must ensure the same.

* + 1. Scaffolding / Working at Heights

Working at heights includes any work that takes place in an elevated position (building of walkway next to bridge). The Contractor must submit a risk-specific fall prevention plan in accordance with the Construction Regulations 2014 before this work is undertaken. The fall prevention plan must be approved by the Client before work may commence, and a permit to operate will be issued. Scaffolding used must comply with, erected and inspected by competent persons appointed in writing in accordance with SANS 085.

* + 1. Formwork and Support work for Structures (where and if required)

The Principal Contractor shall ensure that the provisions of section 11 of the Construction Regulations 2014 are adhered to. These provisions must include but not limited to ensuring that all equipment used is examined for suitability before use; that all formwork and support work is inspected by a competent person immediately before, during and after placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work has been removed. Records of all inspections must be kept in a register on site.

* + 1. Lifting Machines and Tackle (where and if required)

The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (section 20). A competent lifting machinery and tackle inspector need to be appointed in writing and must inspect the equipment daily or before use, taking into account that:

* All lifting machinery and tackle has a safe working load clearly indicated
* Regular inspection and servicing is carried out
* Records are kept of inspections and of service certificates
* There is proper supervision in terms of guiding the loads that includes a trained banksman to direct lifting operations and check lifting tackle
* The tower crane bases have been approved by an engineer
* The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness to be available on site
  + 1. Ladders and Ladder Work

The Principal Contractor shall ensure that all ladders are inspected monthly, are in good safe working order, are the correct height for the task, extend at least 1m above the landing, fastened and secured, and at a safe angle. Records of inspections must be kept in a register on site. Contractors using their own ladders must ensure the same. A safe work procedure to be included into the Health and Safety Plan.

* + 1. General Machinery

The principal Contractor and relevant Contractors shall ensure compliance with the Driven Machinery Regulations , which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing, and training those who use machinery.

* + 1. Portable Electrical Tools and Explosives Powered Tools

The Contractor shall ensure that use and storage of all explosive powered tools and portable electrical tools are in compliance with relevant legislation. The Contractor shall ensure that all electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order. Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measured to be implemented e.g. personal protection equipment, guards, etc. The Contractor shall consider the following:

* A competent person undertakes routine inspections and records are kept
* Only authorized trained person use the tools
* The safe working procedures apply
* Awareness training is carried out and compliance is enforced at all times, and
* PPE and clothing is provided and maintained
* A register indicating the issue and return of all explosive round
* Signs to be posted up in the areas where explosive powered tools are being used.
  + 1. High Voltage Electrical Equipment, Underground and Overhead Power Lines

**Care shall be taken when working close to, over or under high voltage reticulation power lines or cables. Underground services to be identified beforehand and the layout of such to be include in the contractors Health and Safety Plan. A safe work procedure be drawn up and included into contractors Health and Safety Plan.**

* + 1. Public and Site Visitor Health and Safety

The Principal Contractor shall ensure that every person working on or visiting the site, as well as the public in general, shall be made aware of the dangers likely to arise from site activities, including the precautions to be taken to avoid or minimize those dangers. Appropriate health and safety notices and signs shall be posted up but shall not be the only measure taken. Both the Client and Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the

construction activities. Site visitors must be briefed on the hazards and risks they may be exposes to and what measures are in place or should be taken to control these hazards and risks. A record of these “inductions” must be kept on site in accordance with the Construction Regulations.

* + 1. Night Work (where and if required)

The Principal Contractor must ensure that adequate lighting is provided to allow for work to be carried out safely. Permission to be obtained from the Client to work at night.

* + 1. Transport of Workers

The Principal Contractor and other Contractors shall not:

* Transport persons together with goods or tools unless there is an appropriate area of section to store them and all loose tool and plant are tied down and secured,
* Transport persons in a non-enclosed vehicle, e.g. truck; there must be a proper canopy (properly covering the back and top) with suitable sitting area. Workers shall not be permitted to stand or sit at the edge of the transporting vehicle,
* Transport workers in LDV’s unless they are closed/ covered and have the correct number of seats for the passengers.
  1. Occupational Health
     1. Occupational Hygiene

The Contractor shall ensure that:

1. Suitable housekeeping is continuously implemented on each construction site, including provisions for the:
2. Proper storage of materials and equipment; and
3. Removal of scrap, waste and debris at appropriate intervals.
4. Loose materials required for use are not placed or allowed to accumulate on the site so as to obstruct means of access to and egress from workplaces and passageways
5. Waste and debris are not disposed of from a high place with chute, unless the chute complies with the requirements as set out in regulation 12(6), and
6. Construction site in built-up areas, adjacent to a public way are suitable and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons.
   * 1. Welfare Facilities
7. A contractor shall, depending on the number of workers and the duration of the work, provide at or within reasonable access of every construction site, the following clean and maintained facilities:
8. At least one shower facility for every 15 workers
9. At least one sanitary facility for every 30 workers
10. Changing facilities for each sex, and
11. Sheltered eating areas.
12. A contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.
    * 1. Alcohol and Other Drugs

* An employer or a user, as the case may be, shall not permit any person who is or who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace.
* No person at a workplace shall be under the influence of or have in his possession or partake of or offer any other person intoxicating liquor or drugs.
* An employer or user, as the case may be, shall in the case where a person is taking medicines, only allow such person to perform duties at the workplace if the side effects of such medicine do not institute a threat to the health or safety of the person concerned or other persons at such workplace.
  1. Copy of the Act and Regulations

Every employer with five or more persons in his employ shall have a copy of the Act and the relevant regulations readily available at the workplace: Provided that, where the total number of employees is less than five, the employer shall, on request of an employee, make a copy of the Act available to that employee.

* 1. Other Acts and Laws that may apply

The contractor’s attention is directed to the following Acts that may be applicable and must be adhered to at all times. It is the contractor’s responsibility to become conversant with the requirements applicable in these laws:

**Compensation for Occupational Injuries and Diseases ACT 130 of 1993,**

**Mineral Act No. 50 of 1991,**

**Water Act No. 54 of 1956, and**

**Atmospheric Pollution Prevention Act No. 45 of 1965,**

**Occupational Health and Safety Act No. 85 of 1993,**

**Environmental Conservation Act No. 73 of 1989.**

**Hazardous Substances Act No.15 of 1973,**

**National Building Regulations and Building Standards Act No.103 of 1977,**

**National Environmental Management Act No. 107 of 1998,**

**National Road Traffic Act No. 93 of 1996,**

**National Water Act No. 36 of 1998,**

**Relevant By-laws.**

* 1. Acceptance of Conditions of these Specifications
* The contractor must provide a certified copy of his Public Liability Insurance when signing this document.

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the Contractor,

do hereby declare that my Company, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ acknowledge having read and understood the conditions contained in this legal document and furthermore agree and accept to abide by the conditions and requirements of the act.

|  |  |
| --- | --- |
| SIGNATURE CONTRACTOR |  |
| DATE |  |
| SIGNATURE WITNESS |  |
| PRINT NAME |  |
| AGENT ACTING ON BEHALF OF THE CLIENT: | |
| NAME |  |
| DATE |  |
| SIGNATURE |  |
| SIGNATURE WITNESS |  |
| PRINT NAME |  |

* 1. Indemnification

The Contractor hereby certifies that all contracting workmen recognize the inherent hazards that exist on the premises/property/site of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Client detail and site address) and that the Contractor:

* enters the property entirely at his/her own risk and therefore the Contractor waives any claim of whatsoever nature against \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, (Client) its employees, agents and/or mandatories in respect of any loss, damage and/or injury whether same is the result of any negligent act or omission on the part of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (contractor), it’s employees, agents and/or mandatories or other independent Contractors or by a third person or by way of defective equipment or materials supplied by the company, and further the Contractor;
* Hereby indemnifies \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Client), its employees, agents and/or mandatories against any claims from the Contractor’s employees and/or from any other person, arising and being caused in the manner set out above.

1. ANNEXURE A

Proof of notification to be kept in Health and Safety File on site.

ANNEXURE A

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

Regulation 3 of the Construction Regulations, 2014

1. NOTIFICATION OF CONSTRUCTION WORK
2. Name and postal address of principal contractor:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Name and tel. no. of principal contractor’s contact person:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. PRINCIPAL CONTRACTOR’S COMPENSATION REGISTRATION NUMBER:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. NAME AND POSTAL ADDRESS OF CLIENT

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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NAME AND TEL. NO. OF CLIENT’S CONTACT PERSON OR AGENT

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. NAME AND POSTAL ADDRESS OF DESIGNER(S) FOR THE PROJECTS

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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NAME AND TEL. NO. OF DESIGNER(S) CONTACT PERSON

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. NAME AND TELEPHONE NUMBER OF PRINICIPAL CONTRACTOR’S CONSTRUCTION SUPERVISOR ON SITE APPOINTED IN TERMS OF REGULATION 6.(1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. NAME/S OF PRINCIPAL CONTRACTOR’S SUB-ORDINATE SUPERVISORS ON SITE APPOINTED IN TERMS OF REGULATION 6.(2)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. EXACT PHYSICAL ADDRESS OF THE CONSTRUCTION SITE OR SITE OFFICE

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. NATURE OF THE CONSTRUCTION WORK

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. EXPECTED COMMENCEMENT DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. EXPECTED COMPLETION DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. ESTIMATED MAXIMUM NUMBER OF PERSONS ON THE CONSTRUCTION SITE: \_\_\_\_\_\_\_
4. PLANNED NUMBER OF CONTRACTORS ON THE CONSTRUCTION SITE ACCOUNTABLE TO PRINCIPAL CONTRACTOR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. NAME(S) OF CONTRACTORS ALREADY CHOSEN

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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|  |  |  |
| Principal Contractor |  | Date |
|  |  |  |
| Client |  | Date |

**THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR PRIOR TO COMMENCEMENT OF WORK ON SITE. ALL PRINCIPAL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.**

1. ANNEXURE B

|  |
| --- |
| **APPOINTMENT**  **OF CONTRACTOR**  **CONSTRUCTION WORK** |

CONSTRUCTION REGULATION 4(1) (c)

AGENT BEHALF OF: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Name of Client)

PROJECT / SITE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Name & Address or Area)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PROJECT PERIOD: from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

AGREEMENT WITH MANDATARY IN TERMS OF SECTION 37(1) AND (2) OF OHS ACT 85 OF 1993

DEFINITION OF MANDATARY

* Includes an agent, a contractor or a subcontractor for work, but without derogating from his status in his own right as an employer or a user.

DEFINITION OF AGENT

* Means any person who acts as a representative for a client in the managing of the overall construction work.

SECTION 37(1)

Whenever an employee does or omits to do any act which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that–

1. In doing or omitting to do that act, the employee was acting without the connivance or permission of the employer or any such user,
2. It was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged and
3. All reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question, the employer or any such user himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect hereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, in itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

SECTION 37(2)

The provision of subsection (1) shall mutate mutandis apply in the case of a mandatory of any employer or user, except if the parties have agreed in writing to the arrangements and procedures between them to ensure compliance by the mandatory with the provisions of the Act.

ACCEPTANCE BY MANDATARY

In terms of the provisions of Section 37(2) of the Occupational Health and Safety Act 1993, and Construction Regulations 4(1) (c),

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Appointed 16(2) person) acting

for and on behalf of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Company / Close Corporation / Enterprise / Owner / User) undertake to ensure that the requirements and provisions of the Act and Regulations are complied with.

Print Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Agent, Principal Contractor or Contractor)

Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Designation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mandatory- COIDA / Federated Employers Mutual No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mandatory- Professional Indemnity Insurance No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CLIENT

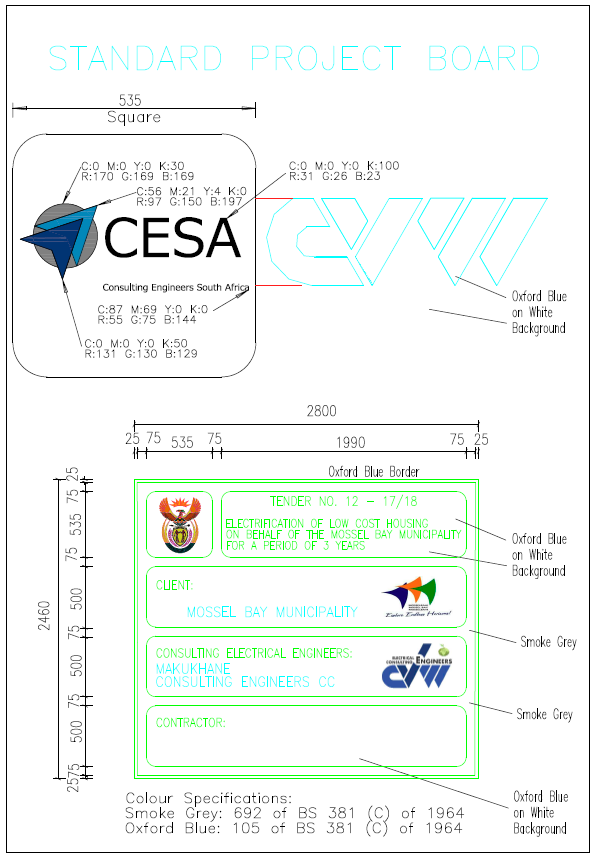
Print Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Appointed 16(1) person / client / agent of Client or Principal Contractor)

Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Designation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# **ANNEXURES**

## ANNEXURE A: STANDARD PROJECT BOARD



## ANNEXURE B: OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS

## ANNEXURE C: MONTHLY CONTRACTOR FORMS

(MONTHLY FORMS TO BE COMPLETED BY THE CONTRACTOR)

|  |  |  |  |
| --- | --- | --- | --- |
| KOUGA MUNICIPALITY | | | |
| NEW METER INSTALLATION - ELECTRIFICATION | | | |
| TECHNICAL INFORMATION | | OWNER’S INFORMATION | |
| Mini-sub Name |  | Name |  |
| Area / Street Name |  | Surname |  |
| Erf Number |  | ID Number |  |
| Meter Number |  | Cell Number |  |
| Meter Type |  | House Number |  |
| Co-ordinates |  |  |  |
| COC Number |  |  |  |
| Comment |  | | |
|  | |  | |
| Technician / Contractor | | Owner | |
|  | | | |
| Name of the Tenant if leased from Owner | | Office Use: | |
|  | |
| Reception: | |

# **VOLUME 2:**

# **PART 1: DRAWINGS**

Xxxxxxxxxx

Xxxxxxxxxx

# **PART 2: DATA PROVIDED BY THE CONTRACTOR**