

EMALAHLENI LOCAL MUNICIPALITY





PROJECT NO: ELM 47/2023

**APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A
MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK
ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO
PHASE 5**

TENDER DOCUMENT

NAME OF TENDERER.....

<u>PREPARED FOR:</u> EMALAHLENI LOCAL MUNICIPALITY CNR Mandela & Arras Street P.O. Box 3 EMALAHLENI, 1035  Telephone: 013 690 6300 Fax: 013 690 6207 Contact: Mr. Edwin Sedupane e-mail: sedupaneme@EMALAHLENI.gov.za	<u>PREPARED BY:</u> PRO-ENG CONSULTING ENGINEERS SUITE 1, MIDLANDS OFFICE PARK 2 WALTER SISULU STR MIDDELBURG 1050  Telephone: 013 243 4343 Contact: I.E Richards e-mail: admin@proeng.co.za
Tenderer:	
CIDB Registration Number:	
Total of the prices inclusive of value added tax: R	
Amount in words:	
CSD Registration Number:	
Preferences claimed for tendered contract participation goal of : NOT APPLICABLE	

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

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EMALAHLENI LOCAL MUNICIPALITY



Tender Notice and Invitation to Tender

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTI-YEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

Employer Tender Number: **ELM 47/2023** cidb

Reference Number: 100087419

EMALAHLENI LOCAL MUNICIPALITY MPUMALANGA INVITES TENDERS FOR THE APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTI-YEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

It is estimated that tenderers should have a cidb contractor grading of **7EP or higher. 6EP Potentially Emerging Enterprises** who satisfy criteria stated in the Tender Data may submit Tender offers.

Preferences are offered to tenderers who have a grading of **7EP/6EP PE**

Tender documents will be obtainable as from Wednesday, **06 September 2023** on www.emalahleni.gov.za or www.etenders.gov.za.

Duly completed tenders enclosed in a sealed envelope marked “**APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTI-YEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5, BID NO. ELM 47/2023, CLOSING DATE: 06 OCTOBER 2023**” with the name of the Tenderer, shall be deposited in the clearly marked tender box situated at Emalahleni Local Municipality, Civic Centre, 29 Mandela Street, eMahahleni, 1035 before 11h00 on the closing date. The tenders will thereafter be opened in public.

A **non-compulsory** virtual clarification meeting with representatives of the Employer will take place on Tuesday, **12 September 2023** starting at **11h00** via Microsoft Teams. Tenderers are required to register for attending the virtual briefing to be conducted by the Clients Representative by sending details (email address and representative name and surname) of the bidding entity to **admin@proeng.co.za**. A Microsoft Teams invite will be sent to the bidding entities registered not later than 11 **September 2023** at **12:00**.

A preferential point system shall apply whereby a contract will be allocated to a tenderer in accordance with the Preferential Procurement Regulations, 2022 and as defined in the Conditions of Tender in the tender document, read in conjunction with the Supply Chain Management Policy of ELM where 90 points will be allocated in respect of price and 10 points in respect of Specific goals.

No awards will be made to a person:

- Who is in the service of the state;
- If that person not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state and or;
- who is an advisor or consultant contracted with the municipality or municipal entity

- Queries relating to the issues of these documents may be addressed to:

- Ms Z.Moroku
- Tel No. 0136906497
- E-mail. masangonz@emalahleni.gov.za or
- Mr SN Mvubelo
- Tel No. 0136906300
- E-mail. mvubelosn@emalahleni.gov.za

Or

- PRO-ENG CONSULTING ENGINEERS
- Mr. I.E. Richards
- Tel No. 0132434343
- E-mail. admin@proeng.co.za

A clarification meeting with representatives of the Employer will take place at MICROSOFT TEAMS on **12 September 2023**

starting at **11h00**.

The closing time for receipt of Tenders is **11h00** on **Friday, October 6, 2023**.

Emailed and Late Tenders will not be accepted.

Tenders may only be submitted on the tender documentation that is issued.

Requirements for sealing, addressing, delivering, opening and assessment of Tenders are stated in the Tender Data.

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (Feb 2008) as published in Government Gazette No: 30692, Board Notice 9 of 2008 of 1 February 2008. (See www.cidb.org.za).

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.

Clause Number	
F.1.1	The Employer is: <i>Emalahleni Local Municipality</i> <i>P.O Box 3</i> <i>Emalahleni</i> <i>1035</i>
F.1.2	The Tender documents issued by the Employer comprise the following documents: THE TENDER Part T1 : Tendering Procedures T1.1 Project Notice T1.2 Tender Data Part T2: Returnable Documents T2.1 List of Returnable documents T2.2 Returnable schedules THE CONTRACT Part C1: Agreements and Contract Data

	C1.1 Form of offer and acceptance
F.1.2	<p>C1.2 Contract Data</p> <p>C1.3 Performance guarantee</p> <p>Part C2: Pricing Data</p> <p>C2.1 Pricing Instructions</p> <p>C2.2 Bill of Quantities</p> <p>Part C3: Scope of Work</p> <p>C3 Scope of Work</p> <p>Part C4: Site Information</p> <p>C4 Site Information</p> <p>Part C5 : Relevant Documentation</p> <p>Health and Safety Specifications</p> <p>Pro-forma agreement in terms of Occupational Health and Safety Act Notification of construction work</p> <p>Pro-forma contract between contractor and worker</p> <p>Pro-forma attendance register</p> <p>Contract person days' calculation format</p> <p>Contractor's monthly report format</p> <p>Environmental Management Plan</p> <p>Geotechnical Investigation Report</p> <p>Tender Drawings</p>
F1.3	<p>Interpretation</p> <p>The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these tender conditions.</p>
F.1.5	<p>The Employer's right to accept or reject any tender offer</p> <p>The employer has the right not to accept the lowest tender and to accept the whole or part of any tender or not to consider any tender not suitably endorsed is fully reserved by EMALAHLENI LOCAL MUNICIPALITY.</p>
F.2.2	<p>Compensation of tendering</p> <p>Accept that 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 satisfy requirements.</p>
F.2.3	<p>Check documents</p> <p>Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.</p>
F.2.4	<p>Confidentiality and copyright</p> <p>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.</p>
F.2.5	<p>Reference documents</p> <p>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.</p>
F2.6	<p>Acknowledge Addenda</p> <p>Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary, apply for an extension of the closing time stated in the tender data, in order</p>

	to take the addenda into account.
F.2.7	<p>Site briefing meeting Refer to T1.1 TENDER NOTICE AND INVITATION TO TENDER for date and time.</p> <p>Date: Refer to T1.1 TENDER NOTICE AND INVITATION TO TENDER for date and time.</p> <p>Location: Microsoft Teams</p>
F.2.11	<p>Alterations to documents 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. Erasures and the use of masking fluid are prohibited.</p>
F2.13	<p>Submitting tender offer: No Tender document will be considered unless submitted on Council's Official Tender Document. Return all the returnable documents to the employer after completing them. Tenders must be deposited in the tender box clearly marked with project description.</p> <p>TENDER NO: ELM 47/2023</p> <p>APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5</p> <p>Location of tender Box: Main Entrance Ground Floor Emalahleni Local Municipality Building Physical Address: EMALAHLENI LOCAL MUNICIPALITY, CNR Mandela & Arras Street EMALAHLENI, 1035</p> <p>Telephonic, telegraphic, telex, facsimile or emailed tenders will not be considered</p> <p>All tender received by the EMALAHLENI LOCAL MUNICIPALITY will remain in the Municipality's possession until after the stipulated closing date and time.</p> <p>Accept that a tender submitted to the employer cannot be withdrawn or substituted. No substitute tenders will be considered</p>
F.2.16	The Tender offer validity period is 90 Days.
F.2.18	The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the Labour-Intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
F2.20	<p>The tenderer is required to submit a Performance Guarantee from an approved insurer within 14 days from appointment. A format is included in Part C1.3 of this document.</p> <p>The tenderer is to submit to the employer 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.</p>
F.3.11	<p>Tender evaluation points The value of this bid is estimated to to exceed R50 000 000 (all applicable taxes included) and therefore the 90/10 system shall be applicable.</p>

Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

The maximum points for this bid are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and Specific Goals	100

Evaluation of Tenders

The Tenderers notice is drawn to the fact that the evaluation, adjudication and awarding of this tender will be in terms of the Supply Chain Management Policy of the ELM.

The following steps will be followed in evaluation;

1. Determination of whether or not tender offers are complete.
2. Determination of whether or not tender offers are responsive.
3. Determination of the reasonableness of tender offers.
4. Confirmation of the eligibility of preferential points claimed by tenderers.
5. Determination of expertise and experience of tenderers.
6. Awarding of points for financial offer.
7. Ranking of tenderers according to the total points
8. Performance of risk analysis by checking the credit record of the tenderers

Evaluation Criteria

Tenders are adjudicated in terms of ELM Supply Chain Management Policy, and the following framework is provided as a guideline in this regard.

Size of enterprise and current workload

- Evaluation of the Tenderer's position in terms of:
- Previous and expected current annual turnover
- Current contractual obligations
- Capacity to execute the contract

Staffing profile

Evaluation of the Tenderer's position in terms of:

- Staff available for this contract being Tendered for
- Qualifications and experience of key staff to be utilised on this contract.

Proposed Key Personnel

In this part of the tender, the Tenderer shall also supply Curriculum Vitae (CV's) for the Staff available named and working on full time basis for the Tenderer. The CV should follow the normal Professional Format.

Each CV should give at least the following:

- Position in the firm and within the organisation of this assignment
- PDI status (describing population group, gender and disabilities)

	<ul style="list-style-type: none"> • Educational qualifications • Professional Registrations • Relevant experience (actual duties performed, involvement and responsibility), including locations, dates and durations of assignments, starting with the latest. • Language proficiency and • References (company name, individual name, position held, contact details) <p>Much importance will be placed on the experience of the staff proposed. The Tender must ensure that, if selected, the nominated staff will be assigned as proposed. Failure to do so may result in the annulment of any acceptance of the Tenders' proposal and/ or Agreement entered into by the Client for the execution of the services</p> <p>Previous experience</p> <p>The procedure for the evaluation of responsive Bids will be on the previous projects where the firm was involved for EMALAHLENI LOCAL MUNICIPALITY (ELM) projects or other clients. Reference of clients other than ELM MUST be provided.</p> <p>The tenderer shall list in the appropriate Forms the appropriate related projects undertaken by the member firms of the tenderer within the last five (5) years.</p> <p>Evaluation of the Tenderer's position in terms of his previous experience. Emphasis will be placed on the following:</p> <ul style="list-style-type: none"> • Experience in the relevant technical field • Experience of contracts of similar size • Some or all of the references will be contacted to obtain their input. <p>The tenderer shall provide documentation of company experience of each member of the Consortium/Joint Venture related projects</p>
	<p>If the Tender does not meet the requirements contained in the ELM Procurement Policy, and the mentioned framework, it will be rejected by the Council, and may not subsequently be made acceptable by correction or withdrawal of the non-conforming deviation or reservation.</p> <p>Penalties</p> <p>The EMALAHLENI LOCAL MUNICIPALITY will if upon investigation it is found that a preference in terms of the Act and these regulations has been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, on discretion of the Municipal Manager, one or more of the following penalties will be imposed:</p> <ul style="list-style-type: none"> • Cancel the contract and recover all losses or damages incurred or sustained from the Tenderer. • Impose a financial penalty at the discretion of Council <p>Restrict the contractor, its shareholders and directors on obtaining any business from the EMALAHLENI LOCAL MUNICIPALITY for a period of 5 years</p>
F.3.11.5	<p>Evaluation Method 4</p> <p>Which entails the balance between financial offer, preferences and Quality and 80-20 points system, will be adopted.</p>
F.3.18	<p>The number of paper copies of the signed contract to be provided by the Employer is one.</p>
	<p>The additional conditions of Tender are:</p> <p>1 Emalahleni Local Municipality may also request that the Tenderer provide written evidence that his financial, labour and resources are adequate for carrying out the</p>

	<p>project.</p> <p>2 The Emalahleni Local Municipality reserves the right to appoint a firm of chartered accountants and auditors and / or execute any other financial investigations on the financial resources of any Tenderer. The Tenderer shall provide all reasonable assistance in such investigations.</p> <p>3 The Emalahleni Local Municipality reserves the right to appoint a different Contractor for each project. The Tenderer shall be required to complete the form of offer (C1.1) and the Bill of Quantities (C2.2) for each project.</p>																														
F.3.11.6	<p>Scoring Functionality: The Construction Firm’s tender responsiveness in relation to points is therefore summarized as follows: Only those tenderers who score a minimum score of 60 points in respect of the following functionality criteria will proceed to the price and preference goals.</p> <table><tr><th>Schedule</th><th>Description of Quality Criteria</th><th>Maximum number of tender evaluation points</th></tr><tr><td>1</td><td>Company’s relevant experience</td><td>20</td></tr><tr><td>2</td><td>Relevant Key Personnel Experience</td><td>20</td></tr><tr><td>3</td><td>Generic Method Statement for the Construction of a High Voltage (88kV or higher) overhead line -schedule 1M: + Risk Management</td><td>25</td></tr><tr><td>4</td><td>Ownership of Plant and Equipment available for this project – Schedule 1G</td><td>10</td></tr><tr><td>5</td><td>Social Development Plan – Schedule 2K</td><td>5</td></tr><tr><td>6</td><td>Health and Safety Plan – Schedule 3C</td><td>5</td></tr><tr><td>7</td><td>Quality Control Plan – Schedule 3E</td><td>5</td></tr><tr><td>8</td><td>Bank Rating and 3-years Financial Statements – Schedule 2C and 2E</td><td>10</td></tr><tr><td></td><td>Maximum total evaluation points for quality (M_s)</td><td>100</td></tr></table>	Schedule	Description of Quality Criteria	Maximum number of tender evaluation points	1	Company’s relevant experience	20	2	Relevant Key Personnel Experience	20	3	Generic Method Statement for the Construction of a High Voltage (88kV or higher) overhead line - schedule 1M: + Risk Management	25	4	Ownership of Plant and Equipment available for this project – Schedule 1G	10	5	Social Development Plan – Schedule 2K	5	6	Health and Safety Plan – Schedule 3C	5	7	Quality Control Plan – Schedule 3E	5	8	Bank Rating and 3-years Financial Statements – Schedule 2C and 2E	10		Maximum total evaluation points for quality (M_s)	100
Schedule	Description of Quality Criteria	Maximum number of tender evaluation points																													
1	Company’s relevant experience	20																													
2	Relevant Key Personnel Experience	20																													
3	Generic Method Statement for the Construction of a High Voltage (88kV or higher) overhead line - schedule 1M: + Risk Management	25																													
4	Ownership of Plant and Equipment available for this project – Schedule 1G	10																													
5	Social Development Plan – Schedule 2K	5																													
6	Health and Safety Plan – Schedule 3C	5																													
7	Quality Control Plan – Schedule 3E	5																													
8	Bank Rating and 3-years Financial Statements – Schedule 2C and 2E	10																													
	Maximum total evaluation points for quality (M_s)	100																													

SCORING FUNCTIONALITY:

The following is a statement of major works of a similar nature successfully executed by myself/ourselves.

1) Scoring functionality:

The following criteria will be used to calculate points for the functionality of tenders and bidders should ensure that they submit all relevant information in order to be pre-evaluated on the criteria mentioned below:

NB. TENDERERS WHO FAIL TO MEET THE MINIMUM THRESHOLD CRITERIA OF 60 POINTS FOR OVERALL FUNCTIONALITY WILL NOT BE CONSIDERED FOR FURTHER EVALUATION, BASED ON PRICE AND PREFERENCE.

Incomplete forms will be disregarded and will be considered as non-responsive.

TENDERERS MUST COMPLETE SCHEDULES 1E, 1F, 1G, 1H, 1M AND SUBMIT DOCUMENTS AS DESCRIBED IN F.3.11.6 ABOVE IN ORDER TO BE AWARDED POINTS.

1) Company's relevant experience – 20 points

Note: Failure to provide completion certificate(s) and Schedule 1E will result in no points being awarded. Tenderer's High Voltage (88 kV or higher) overhead line works experience completed successfully on or after 30 June 2016 (Maximum 20 points).

- 1 project = 5 points
- 2 projects = 10 points
- 3 projects = 15 points
- 4 or more projects = 20 points

2) Relevant Key Personnel Experience – 20 points

This project is estimated to require the following personnel:

2.1 Site Agent – Points will only be awarded for one of the Site Agent sections (2.1.1 OR 2.1.2) below:

2.1.1 Site Agent / Project Manager with a relevant technical qualification in Electrical Engineering or Project Management with relevant High Voltage (88 kV or higher) overhead line works experience in the capacity as the Site Agent / Project Manager (Maximum 8 points) – Schedule 1M:

Maximum 8 points for projects:

- 0 project = 0 points
- 1 project = 1.5 points
- 2 projects = 3 points
- 3 projects = 4 points
- 4 points will be allocated for the relevant qualification.

2.1.2 Site Agent / Project Manager with no relevant technical qualification in Electrical Engineering or Project Management with relevant High Voltage (88 kV or higher) overhead line works experience in the capacity as the Site Agent / Project Manager

Maximum 4 points for projects:

- 0 project = 0 points
- 1 project = 1.5 points
- 2 projects = 3 points
- 3 projects = 4 points

2.2 Construction Manager / General Foreman with a relevant qualification with High Voltage (88 kV or higher) overhead line works experience in the capacity as general foreman (Maximum 3 points) – **Schedule 1M:**

0 project = 0 points
1 project = 1 points
2 projects = 2 points
3 projects = 3 points

2.3 Safety Officer registered with SACPCMP as a Construction Health and Safety Officer (Maximum 3 points) – **Schedule 1M:**

3 points allocated for Safety Officer being registered with SACPCMP. Note: Failure to provide proof of Registration will result in no points being awarded (0 out of 3 for Registration).

2.4 Civil Engineer with a relevant qualification with High Voltage (88 kV or higher) overhead line works experience (Maximum 3 points) – **Schedule 1M:**

0 project = 0 points
1 project = 1 points
2 projects = 2 points
3 projects = 3 points

2.5 Foremen with a relevant qualification with High Voltage (88 kV or higher) overhead line works experience in the capacity as general foreman (Maximum 3 points) – **Schedule 1M:**

0 project = 0 points
1 project = 1 points
2 projects = 2 points
3 projects = 3 points

3) Generic Method Statement for the Construction of a High Voltage (88 kV or higher) overhead line (Maximum 25 points) – **Schedule 1M:** + risk management

Provide a generic method statement to describe the typically steps, methods, practices, and techniques followed in the construction of High Voltage (88 kV or higher) overhead lines based on the Contractors experience and knowledge, including the critical quality check points. Please include the preliminary concrete mix design and formwork system. (**Schedule 1H**).

The method statements will be evaluated based on:

- If the method statement submitted relates to the construction of High Voltage (88 kV or higher) overhead lines,
- If the critical points were identified and adequate control measures are described,
- If the techniques described is specific to the construction of high voltage (88 kV or higher) overhead lines.

- 0 points will be awarded if none of the above points were met,
- 7 points will be awarded if one of the above points were met,
- 12 points will be awarded if two of the above points were met,
- 17 points will be awarded if three of the above points were met,
- 25 points will be awarded if all the above points were met.

4) Ownership of Plant and equipment available to use for this project (Maximum points 10) – **Schedule 1G**

- 0 points will be awarded if the specified plant/equipment is not available for the execution of the project.
- 2 points will be awarded for the ownership and availability of a 5 ton crane truck (or larger).
- 2 points will be awarded for the ownership and availability of two 1 ton LDV.
- 3 points will be awarded for the ownership and availability of a hydraulic crimper with at least 60 tons crimping capacity. Photo of crimper with proof of serial number and calibration certificate.
- 3 point will be awarded for the ownership and availability of tension stringing equipment. Photo of tension stringing equipment with proof of serial number and calibration certificate.
- 1 point will be awarded if the 5 ton crane truck (or larger) is rented.
- 1 points will be awarded if the two 1 ton LDV's are rented.
- 1.5 points will be awarded if a hydraulic crimper with at least 60 tons crimping capacity is rented. Photo of crimper with proof of serial number and calibration certificate.
- 1.5 will be awarded of the tension stringing equipment is rented. Photo of tension stringing equipment with proof of serial number and calibration certificate.

Note: Failure to provide a duly completed Lease Agreement for all rental equipment between the rental company and the tender, will result in no points being awarded.

5) Social development Plan (Maximum points 5) – Schedule 2K

The Tenderer must attach at **Schedule 2K** their Social Development Plan which outlines how the Tenderer will address the critical challenges of poverty, unemployment and inequality, over the short and medium term, with a focus on deepening social assistance and extending the scope of social security; reforming the social welfare sector and its services to deliver better results and strengthening community development. A maximum of 5 points will be awarded for this section, based on how detailed and well developed the Social Development Plan is.

5 points will be awarded for a detailed, well developed Plan,

4 points will be awarded for a detailed Plan,

3 points will be awarded for a basic Plan,

2 points will be awarded for a generic Plan,

1 point will be awarded for a Plan,

0 points will be awarded for no Plan.

6) Health and Safety Plan (Maximum points 5) – Schedule 3C

The Tenderer must attach at **Schedule 3C** their Health and Safety Plan. A maximum of 5 points will be awarded for this section, based on how detailed and well developed the Health and Safety Plan is.

5 points will be awarded for a detailed, well developed Plan,

4 points will be awarded for a detailed Plan,

3 points will be awarded for a basic Plan,

2 points will be awarded for a generic Plan,

1 point will be awarded for a Plan,

0 points will be awarded for no Plan.

7) Quality Control Plan (Maximum points 5) – Schedule 3E

The Tenderer must attach at **Schedule 3E** their Quality Control Plan. A maximum of 5 points will be awarded for this section, based on how detailed and well developed the Quality Control is.

5 points will be awarded for a detailed, well developed Plan or ISO 9001 accreditation,

4 points will be awarded for a detailed Plan,

3 points will be awarded for a basic Plan,

2 points will be awarded for a generic Plan,

1 point will be awarded for a Plan,

0 points will be awarded for no Plan.

8) Bank rating and 3-years financial statements (Maximum points 10) – Schedule 2C & 2E

The Tenderer must attach at **Schedule 2C & 2E** their audited financial statements for the past 3-years and a CSD report which is not older than May 2021. A maximum of 10 points will be awarded for this section, should it be found that the company's financial standing is healthy.

10 points will be awarded if both the CSD report and the 3-year financial statements are found to be in good order.

7 points will be awarded if only the 3-year financial statements is found to be in good order.

3 points will be awarded if only the CSD report is found to be in good order.

0 points will be awarded for unfavourable results or no documentation provided for both the CSD report and the 3-year financial statements.

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

T2.1 LIST OF RETURNABLE DOCUMENTS

The following documents are to be completed and returned as they constitute the tender. Whilst many of the returnable documents are required for the purpose of evaluating the tenders, some will form part of the subsequent contract, as they form the basis of the tender offer. For this reason, it is very important that tenderers return **all information requested**.

MBD FORMS

1.	RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES (included hereafter for completion)
Schedule: 1A	Compulsory Enterprise Questionnaire - Compulsory
Schedule: 1B	Authority of Signatory - Compulsory
Schedule: 1C	Certificate of Authority for Joint Ventures (if applicable) - Compulsory
Schedule: 1D	Record of Addenda to Tender Documents - Compulsory
Schedule: 1E	Company's Relevant Experience in South Africa - Evaluation
Schedule: 1F	Personnel Schedule and format of curriculum vitae (if applicable) - Evaluation
Schedule: 1G	Schedule of Plant and Equipment available for the Contract – Evaluation
Schedule: 1H	Schedule of Method Statement for High Voltage (88 kV or higher) overhead line works – Evaluation
Schedule: 1I	Schedule of Proposed Subcontractors - Evaluation
Schedule: 1J	Certificate of Attendance of non – compulsory virtual Clarification Meeting
Schedule: 1K	Proposed Amendments and Qualifications – Compulsory
Schedule: 1L	Workmen's Compensation Registration – Compulsory
Schedule: 1M	Functionality Points Claimed - Compulsory
2.	OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES
Schedule: 2A	Certificate of Contractor Registration issued by the CIDB - Compulsory
Schedule: 2B	Financial Statements - Compulsory
Schedule: 2C	Proof of Authority of Signatory - Compulsory

Schedule: 2D	CSD Report - Compulsory
Schedule: 2E	Joint Venture Agreement, if applicable - Compulsory
Schedule: 2F	Municipal Levy Payment for company and its directors - Compulsory
Schedule: 2G	A certificate certifying that the enterprise has no undisputed commitments to a municipality or other service provider in respect of which payment is overdue by more than 30 days - Compulsory
Schedule: 2H	Form of Intent to provide a Performance Guarantee – Contractual
Schedule: 2I	Risk Management Plan – Contractual
3.	RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT (to be attached with submission)
Schedule: 3A	Execution Programme - Evaluation
Schedule: 3B	Contractor's Health and Safety Declaration - Evaluation
Schedule: 3C	Contractor's Safety Plan - Evaluation
Schedule: 3D	Pro forma Notification form in terms of the Occupational Health and Safety Act 1993, Construction Regulations, 2003 - Evaluation
Schedule: 3E	Quality Control Plan - Evaluation
Schedule: 3F	Social Development Plan - Evaluation

MBD 1	Invitation to Bid
MBD4	Declaration of Interest
MBD 6.1	Preference Points
MBD8	Declaration of bidder's past supply chain management practices
MBD9	Certificate of Independent bid determination

Returnable Documents that will be incorporated into the contract

C1.1	Form of Offer and Acceptance
C1.2	Contract Data (Part 2)
C1.3	Form of Guarantee
C2.2	Bill of Quantities

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

T2.2 RETURNABLE DOCUMENTS

RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

FORM A COMPULSORY ENTERPRISE QUESTIONNAIRE

In the case of a Joint Venture – This questionnaire is to be completed and submitted in respect of each partner.

1. **Name of Enterprise:**
2. **VAT Registration number, if any:**
3. **CIDB Registration number:**
4. **Particulars of sole proprietors and partners in partnership:**

Name	Identity Number	Personal Income Tax Number

* Complete only if sole proprietor or partnership and attach separate page if more than 4 partners.

5. **Particulars of companies and close corporations:**

Company Registration Number:

Close Corporation Number:

Tax reference Number:

6. Record in the service of the state:

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal stakeholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of Directors of any Municipal entity
- an official of any municipality or municipal entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following information:

Name of sole proprietor, partner, director, manager or principal stakeholder or stakeholder	Name of Institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within the last 12 months

Name of Tenderer:

Date:

Signature:

Position:

Full name of signatory:

FORM B RECORD OF ADDENDA TO TENDER DOCUMENTS
--

We confirm that the following communication received from the Employer before the submission of this tender offer, amending the tender documents, have been considered in this tender offer:
--

	Date	Title of Details

Name of Tenderer:

Date:

Signature:

Position:

Full name of signatory:

FORM C AUTHORITY OF SIGNATORY

Details of person responsible for tender process:

Name:

Contact number:

Office address:

Signatories for close corporations and companies shall confirm their authority by attaching to this form a **duly signed and dated original or certified copy on the Company Letterhead** of the relevant resolution of their members or their board of directors, as the case may be.

PRO-FORMA FOR COMPANIES AND CLOSE CORPORATIONS:

"By resolution of the board of directors passed on (date).....

Mr

has been duly authorized to sign all documents in connection with the Tender for Contract Numberand any Contract which may arise there from on behalf of

(BLOCK CAPTIALS)

SIGNED ON BEHALF OF THE COMPANY

IN HIS CAPACITY AS

DATE :

FULL NAMES OF SIGNATORY

AS WITNESSES: 1.

2.

PRO-FORMA FOR JOINT VENTURES:

Certificate of Authority for Joint Ventures

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms, authorised signatory of the company, acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead Partner: CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:
 CIDB Reg No:		Signature: Name: Designation:

ATTACH HERETO THE DULY SIGNED AND DATED ORIGINAL
OR CERTIFIED COPY OF AUTHORITY OF SIGNATORY ON
COMPANY LETTERHEAD

FORM D PREFERENCE SCHEDULE – MBD 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) Specific Goals

1.3.1 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and Specific Goals	100

1.4 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.

2. DEFINITIONS

2.1 “**all applicable taxes**” includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;

2.2 “**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 services, works or goods, through price quotations, advertised competitive bidding processes or proposals;

2.3 “**comparative price**” means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;

2.3 “**consortium or joint venture**” 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;

2.4 “**contract**” means the agreement that results from the acceptance of a bid by an organ of state;

2.5 “**EME**” means any enterprise with an annual total revenue of R5 million or less.

2.6 “**Firm price**” means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;

- 2.7 **“functionality”** means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, considering, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- 2.8 **“non-firm prices”** means all prices other than “firm” prices;
- 2.9 **“person”** includes a juristic person;
- 2.10 **“rand value”** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
- 2.11 **“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;
- 2.12 **“total revenue”** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007;
- 2.13 **“trust”** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 2.14 **“trustee”** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

3. ADJUDICATION USING A POINT SYSTEM

- 3.1 The bidder obtaining the highest number of total points will be awarded the contract.
- 3.2 Preference points shall be calculated after prices have been brought to a comparative basis considering all factors of non-firm prices and all unconditional discounts;
- 3.3 Points scored must be rounded off to the nearest 2 decimal places.
- 3.4 Two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

4. POINTS AWARDED FOR PRICE

4.1 THE 90/10 PREFERENCE POINT SYSTEMS

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) & \text{or} & P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \end{array}$$

Where

P_s = Points scored for comparative price of bid under consideration
 P_t = Comparative price of bid under consideration
 P_{\min} = Comparative price of lowest acceptable bid

5. Points for Specific Goals

- 5.1 In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the specific goals in accordance with the table below:

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

Note to tenderers: The tenderer must indicate how they claim points for each preference point

system.

Item no.	The specific goals allocated points in terms of this tender	Number of points (80/20 system)	Number of points claimed (80/20 system) (To be completed by the tenderer)
A total of 15 preference points shall be allocated on a proportional or pro rata basis for contracting an enterprise owned by historically disadvantaged persons or individuals who meet the following requirements -			
1.	for 100% black person or people owned enterprise		2.5 points
2.	for at least 30% woman or women shareholding or owned enterprise		2.5 points
3.	For at least 30% youth shareholding or owned enterprise		1.25 points
4.	for at least 30% people living with disability shareholding or owned enterprise		1.25 points
A total of 5 preference points shall be allocated on a proportional or pro rata basis for implementing of programmes for RDP -			
7.	for enterprise regarded as EME located within the local area of jurisdiction.		2.5 Points

5.2 POINTS AWARDED FOR SPECIFIC GOALS

5.4 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

5.5 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

5.6 (a) an invitation for tender for income-generating contracts, that the 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

5.7 (b) any other invitation for tender, the 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, the organ of state indicates the points allocated for specific goals for the 90/10 preference point system.

6. BID DECLARATION

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
 - ☐ One-person business/sole propriety
 - ☐ Close corporation
 - ☐ Public Company
 - ☐ Personal Liability Company
 - ☐ (Pty) Limited
 - ☐ Non-Profit Company
 - ☐ State Owned Company
- [TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as
- iv) shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- v) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) 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;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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
 - (e) forward the matter for criminal prosecution, if deemed necessary.

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

FORM E SCHEDULE OF PREVIOUS EXPERIENCE

Provide the following information on relevant previous experience (indicate specifically projects of similar or larger size and/or which is similar with regard to type of work. **This information is material to the award of the Contract.** Appointment letters and Completion certificates should be attached.

Description	Value (R) VAT excluded	Year(s) work executed	Reference		
			Name	Organisation	Tel no.

Name of Tenderer: Date:.....

Signature :

Full name of signatory:

FORM F SCHEDULE OF CURRENT PROJECTS

Provide the following information on current projects. **This information is material to the award of the Contract.**

Description	Value (R) VAT excluded	Date Appointed	Reference		
			Name	Organisation	Tel no

Name of Tenderer:

Date:

Signature :

Full name of signatory:

**FORM G CERTIFICATE OF ATTENDANCE AT NONE
COMPULSARY BRIEFING MEETING**

I / We acknowledge that the tender briefing was attended by a company representative able to relay the presentation of the works and/ or matters incidental to doing the works in the tender document in order for me/ us to take account of everything necessary when compiling our rates and prices included in the tender.

I/we acknowledge that the attendance register will be used to confirm our company's presence and if found to be absent, will lead to our tender being disqualified.

Name:

Signature:

Capacity:

Date and Time:

Capacity:

Date and Time:

FORM H PROPOSED KEY PERSONNEL

Please attach CVs of the proposed key personnel.

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the personnel which he intends to utilize on the Works, including key personnel which may have to be brought in from outside if not available locally.

CATEGORY OF EMPLOYEE	NUMBER OF PERSONS					
	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION		KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY		UNSKILLED PERSONNEL TO BE RECRUITED FROM LOCAL COMMUNITY	
	HDI	NON-HDI	HDI	NON-HDI	HDI	NON-HDI
Site Agent, Project Managers						
Foremen, Quality Control and Safety Personnel						
Technicians, Surveyors, etc						
Artisans and other Skilled workers						
Plant Operators						
Others:.....						

The Tenderer shall attach hereto the *curricula vitae*, in the form included hereafter, of at least the site agent, the foreman, safety officer and the project manager. The information is necessary for evaluation of the tender.

Name of Tenderer:

Date:

Signature :

Full name of signatory:

FORM I SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract if my / our tender is accepted.

(a) Details of major equipment owned by me / us and immediately available for this contract.

DESCRIPTION (<i>type, size, capacity etc</i>)	QUANTITY	YEAR OF MANUFACTURE

Attach additional pages if more space is required

(b) Details of major equipment that will be hired, or acquired for this contract if my / our tender is accepted

DESCRIPTION (<i>type, size, capacity etc</i>)	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

Attach additional pages if more space is required

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

Failure to complete this form properly and correctly, will lead to the conclusion that the tenderer does not have the necessary plant and equipment resources at his disposal, which will prejudice his tender.

Name of Tenderer:

Date:

Signature :

Full name of signatory:

FORM J SCHEDULE OF PROPOSED SUB-CONTRACTORS

Appointment of the proposed sub-contractors is subject to approval by EMALAHLENI LOCAL MUNICIPALITY (ELM) in accordance with ELM Supply Chain Management Policy.

NAME OF SUB-CONTRACTOR	FULL DESCRIPTION OF WORK TO BE PERFORMED BY SUB-CONTRACTOR

Name of Tenderer:

Date:

Signature:

Full name of signatory:

FORM K FINANCIAL REFERENCES

FINANCIAL STATEMENTS

I/We agree, if required, to furnish an audited copy of the last 3 years' set of financial statements together with my/our Directors' and Auditors' report for consideration by the Client.

DETAILS OF TENDERERS BANKING INFORMATION

I/We hereby authorise the Client/Engineer to approach all or any of the following banks for the purposes of obtaining a financial reference:

BANK NAME:									
ACCOUNT NAME: <i>(e.g. ABC Civil Construction cc)</i>									
ACCOUNT TYPE: <i>(e.g. Savings, Cheque etc)</i>									
ACCOUNT NO:									
ADDRESS OF BANK:									
CONTACT PERSON:									
TEL. NO. OF BANK / CONTACT:									
How long has this account been in existence:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">0-6 months</td> <td style="width: 40px;"></td> </tr> <tr> <td style="padding: 2px 5px;">7-12 months</td> <td></td> </tr> <tr> <td style="padding: 2px 5px;">13-24 months</td> <td></td> </tr> <tr> <td style="padding: 2px 5px;">More than 24 months</td> <td></td> </tr> </table> (Tick which is appropriate)	0-6 months		7-12 months		13-24 months		More than 24 months	
0-6 months									
7-12 months									
13-24 months									
More than 24 months									

Name of Tenderer:

Date:

Signature:

Full name of signatory:

FORM L Certificate of Authority of Joint Ventures/ Close Corporations/ Partnership/ Company/ Sole proprietor
--

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

(I) CERTIFICATE OF COMPANY

I,, chairperson of the Board of Directors of
, hereby confirm that by resolution of the Board (copy attached) taken
 on 20....., Mr/Ms, acting in the capacity
 of....., was authorized to sign all documents in
 connection with the tender for Contract No. ELM 05/2023 and any contract resulting from it on behalf of the company.

Chairman:

As Witnesses: 1.....

2.....

Date:

(II) **CERTIFICATE FOR CLOSE CORPORATION**

We, the undersigned, being the key members in the business trading as.....

..... hereby authorize Mr/Ms, acting in the capacity of....., to sign all documents in connection with the tender for Contract No. ELM 05/2023 and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note : *This certificate is to be completed and signed by all of the key members upon whom rests the direction of the affairs of the Close Corporation as a whole.*

(III) **CERTIFICATE FOR PARTNERSHIP**

We, the undersigned, being the key partners in the business trading as,

....., hereby authorize Mr/Ms,

acting in the capacity of, to sign all documents in connection with the tender for Contract No. ELM 05/2023 and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note : *This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole.*

(IV) **CERTIFICATE FOR JOINT VENTURE**

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms . . .

....., authorised signatory of the company

....., acting in the capacity of lead partner, to

sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature. Name Designation.
		Signature. Name Designation.
		Signature. Name Designation.
		Signature. Name Designation.

Note : *This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Joint Venture as a whole.*

(V) **CERTIFICATE FOR SOLE PROPRIETOR**

I,, hereby confirm that I am the sole owner of the Business

trading as

Signature of Sole owner:

As Witnesses:

Date:

1.....

2.

FORM M Certificate of Registration with CIDB 7EP/6EPPE
--

The tenderer shall provide a printed copy of the Active Contractor's Listing off the CIDB website. (www.cidb.org.za). Tenderers whose CIDB registration expires within 21 days after close of tender should attach proof of their application for re-registration (refer to Tender Data Clause F.2.1). In the case of a Joint Venture, a printed copy of the Active Contractor's Listing must be provided for each member of the Joint Venture.

Name of Contractor:

Contractor Grading Designation:

CIDB Contractor Registration Number:

Expiry Date:

FORM N Registration on National Treasury Central Supplier

The tenderer shall provide a printed copy of the Active Supplier Listing on the National Treasury Central Supplier Database. (www.treasury.gov.za). Tenderers who are not registered on the Central Supplier Database should attach proof of their application for registration. In the case of a Joint Venture, a printed copy of the Active Supplier Listing must be provided for each member of the Joint Venture.

Name of Contractor:

Central Supplier Database Supplier Number:

Expiry Date:

FORM O Municipal Utility Account

DECLARATION BY THE TENDERER

I the undersigned _____, has been duly authorized to sign all documents with the Tender for Contract Number _____ on behalf of _____ hereby make a declaration as follows:
(referred to herein as "the Bidder")

1. I declare that the bidder and /or any of its director(s) / member(s) does not owe the municipality, or any other municipality and/or municipal entity any amount which is in arrears in respect of any municipal rates and taxes or municipal service charges.
2. I understand and accept that in the event that this declaration is proved to be false, the bid shall be rejected forthwith. All other rights of the municipality (including but not limited to the right to claim damages where applicable) shall remain reserved in full.

SIGNED ON BEHALF OF THE COMPANY

IN HIS CAPACITY AS

DATE

FULL NAMES OF SIGNATORY

Utility Account Number	Name of Municipality	Name of Owner

**ATTACH AN ORIGINAL OR A CERTIFIED COPY OF A MUNICIPAL UTILITY
ACCOUNT (NOT OLDER THAN THREE (3) MONTHS)**

Important: Note the following

- List Account(s) registered either in the name(s) of the Director(s) or the Company on the declaration form attached hereto.

Attach Municipal Utility account of Company's registered office (if applicable) and in case of leased premises, attach lease agreement and the services account of leased premises. (issued in the name of the bidding company)

FORM P Annual Audited Financial Statements
--

The tenderer must attach to this page the Annual Audited Financial Statement for the past three years/ since establishment in less than three years as required by law.

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF MUNICIPALITY/ MUNICIPAL ENTITY)			
BID NUMBER:		CLOSING DATE:	
DESCRIPTION	APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5		
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 (STREET ADDRESS)

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	<input type="checkbox"/>		<input type="checkbox"/>
TAX COMPLIANCE STATUS	<input type="checkbox"/> TCS PIN:		OR CSD No: <input type="checkbox"/>
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	Yes No <input type="checkbox"/> IF YES ENCLOSE PROOF <input type="checkbox"/>	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	Yes No <input type="checkbox"/> IF YES, ANSWER PART B:3 <input type="checkbox"/>
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		CONTACT PERSON	
CONTACT PERSON		TELEPHONE NUMBER	
TELEPHONE NUMBER		FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	
E-MAIL ADDRESS			

PART B
TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION. 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE 1.3. 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.
2. TAX COMPLIANCE REQUIREMENTS
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. 2.2 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. 2.3 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. 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3. 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS
3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input checked="" type="checkbox"/> 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:

MBD 4

DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- the bidder is employed by the state; and/or
- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

2.1 Full Name of bidder or his or her representative:

2.2 Identity Number:

2.3 Position occupied in the Company (director, trustee, shareholder²):

.....

2.4 Company Registration Number :

2.5 Tax Reference Number :

2.6 VAT Registration Number:

2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

¹"State" means –

(a) 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);

(b) any municipality or municipal entity;

(c) provincial legislature;

(d) national Assembly or the national Council of provinces; or

(e) Parliament.

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

2.7 Are you or any person connected with the bidder presently employed by the state? **YES / NO**

2.7.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:

.....

Name of state institution at which you or the person connected to the bidder is employed:

.....

Position occupied in the state institution:

.....

Any other particulars:

.....

.....

.....

2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? **YES / NO**

2.7.2.1 If yes, did you attached proof of such authority to the bid document? **YES / NO**

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:

.....

.....

.....

2.8 Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? **YES / NO**

2.8.1 If so, furnish particulars:

.....

.....

.....

YES / NO

.....

.....

.....

YES/NO

.....

.....

.....

YES/NO

.....

.....

[illegible]

4 DECLARATION

I THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3
ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME

IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF

CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- 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).

1.2 To be completed by the organ of state

- a) The applicable preference point system for this tender is the 90/10 preference point system.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	89
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

80/20	or	90/10
$Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$	or	$Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} \end{array}$$

Where

Ps = Points scored for price of tender under consideration
Pt = Price of tender under consideration
Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(c) an invitation for tender for income-generating contracts, that either the 80/20 or **90/10** preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(d) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.

Item no.	The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system)	Number of points claimed (90/10 system) (To be completed by the tenderer)
A total of 15 preference points shall be allocated on a proportional or pro rata basis for contracting an enterprise owned by historically disadvantaged persons or individuals who meet the following requirements -			
1.	for 100% black person or people owned enterprise	2.5points	
2.	for at least 30% woman or women shareholding or owned enterprise	2.5 points	
3.	For at least 30% youth shareholding or owned enterprise	1.25 points	
4.	for at least 30% people living with disability shareholding or owned enterprise	1.25 points	
A total of 5 preference points shall be allocated on a proportional or pro rata basis for implementing of programmes for RDP -			
7.	for enterprise regarded as EME located within the local area of jurisdiction.	2.5 points	
The Municipality will utilize the CSD report for the above-mentioned information.			

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- vi) The information furnished is true and correct;

- vii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- viii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- ix) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

- (a) disqualify the person from the tendering process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person’s conduct;
- (c) 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;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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
- (e) forward the matter for criminal prosecution, if deemed necessary.

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:
.....
.....
.....

MBD 8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions 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 disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 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 companies or persons 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 <i>audi alteram partem</i> rule was Applied).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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)? To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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 outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply With the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS 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

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 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. Disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. Cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 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 (MBD 9) must be completed and submitted with the bid:

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

²Bid 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.

MBD 9

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 Institution)

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

MBD 9

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.

MBD 9

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

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

**APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION
OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR
PHASE 3 TO PHASE 5**

C. THE CONTRACT

Part C1: Agreements and Contract Data

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Form of Guarantee

Part C2: Pricing Data

- C2.1 Pricing Instructions
- C2.2 Bills of quantities

Part C3: Scope of Work

- C3 Scope of Work

Part C4: Site Information

- C4 Site Information

Part C5 : Relevant Documentation

- C5 Health & Safety Specifications

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

**APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION
OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR
PHASE 3 TO PHASE 5**

C1 AGREEMENTS AND CONTRACT DATA

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Form of Guarantee

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works: **APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5**

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 authorised, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor 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 _____
Name 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 1 Agreements and Contract Data (which includes this Agreement)

Part 2 Pricing Data

Part 3 Scope of Work

Part 4 Site information

Part 5 Additional Documentation

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 listed in the Tender Schedules 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 authorised 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 fulfil 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. Unless the Tenderer (now Contractor) within five 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

Name

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 aforesaid, become the subject of agreements reached 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 documents and which it is agreed by the Parties becomes 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 into the final draft of the Contract.

1	Subject _____
	Details _____
2	Subject _____
	Details _____
3	Subject _____
	Details _____
4	Subject _____
	Details _____
5	Subject _____
	Details _____
6	Subject _____
	Details _____

By the duly authorised 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 Schedules, 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 communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

FOR THE TENDERER:

Signatures (s) _____

Name(s) _____

Capacity _____

(Name and address of Organisation)

Name & Signature

Of Witness _____ Date _____

FOR THE EMPLOYER

Signatures (s) _____

Name(s) _____

Capacity _____

(Emalahleni Local Municipality – Mandela Street)

Name & Signature

Of Witness _____ Date _____

C1.2 CONTRACT DATA

PART 1: DATA PROVIDED BY THE EMPLOYER

CONDITIONS OF CONTRACT

The Conditions of Contract are the *General Conditions of Contract for Construction Works (2015)* published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained from the South African Institute of Civil Engineering (Tel: 011 805 5947).

Each item of data given below is cross-referenced to the clause in the Conditions of Contract to which it mainly applies.

PART 1: Data provided by the Employer

Clause	Data
1.1.1.15	The Name of the Employer is Emalahleni Local Municipality
1.2.1.2	The address of the Employer is: CNR Mandela & Arras Street eMalahleni 1035 Telephone: 013 690 6300 Facsimile: 013 690 6207
5.8.1	The special non-working days are the official builder's holiday plus all statutory public holidays. The year-end break commences on 15 December and ends on 5 January .
5.13.1	The penalty for failing to complete the works is 3,75c per R100 per day of the contract value.
6.2.1	Public liability insurance to a maximum of R1 million .
5.2.1	The Contractor shall commence executing the Works within 14 days from the Commencement Date.
5.5.1 1.1.1.14	The Works shall be completed within the timeframe stated by the contractor at tender stage.
5.6.1	The Contractor shall deliver his programme of work within 14 days.
8.6.1.1.2	The value of the materials supplied by the Employer to be included in the insurance sum is nil.
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is nil.
5.1.1	The Works shall be completed within the timeframe stated by the contractor

PART 1: DATA PROVIDED BY THE CONTRACTOR

The Contractor is advised to read the *General Conditions of Contract for Construction Works (3RD EDITION 2015)*, published by the South African Institution of Civil Engineering, in order to understand the implications of this Data which is required to be completed.

Each item of data given below is cross-referenced to the clause of Conditions of Contract to which it mainly applies.

Clause	Data
1.1.1.9	The Contractor is: Name:
1.2.1.2	The Address of the Contractor is: Address (physical): Address (postal): Telephone: Facsimile: E-mail:
6.5.1.2.3	The percentage allowance to cover overhead charges is

C1.3 FORM OF GUARANTEE

FORM OF GUARANTEE

TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

WHEREASat

EMALAHLENI LOCAL MUNICIPALITY

(Hereinafter referred to as "the Employer")

entered into, on the Day of2023, at

a Contract with

at

(Hereinafter called "The Contractor")

for the **APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5** as per Scope of work AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of suretyship 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 security;

NOW THEREFORE WE,

do hereby guarantee and bind ourselves jointly and severally as Sureties and Co-principal Debtors to the Employer under renunciation of the benefits of division and execution 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 authorised and/or contemplated by the terms of the said contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Due 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 of any modification, variation, alterations of the Due Completion Date which the Employer may make, give, concede or agree to under the said Contract.
2. The Employer shall be entitled, without reference to us, to release any securities held by it, and to give time to or compound or make any other arrangement with the Contractor.

3. 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 the 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.
4. Our total liability hereunder shall not exceed the sum of (R.....).
5. We hereby choose domicilium citandi et executandi for all purposes arising hereof at

IN WITNESS WHEREOF this guarantee has been executed by us at on
this..... day of 20

As witnesses:

- | | | |
|----|-------|---|
| 1. | | Signature |
| 2. | | Duly authorised to
sign on behalf of |
| | | Address |
| | | |
| | | |

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

**APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION
OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR
PHASE 3 TO PHASE 5**

C2 PRICING DATA

C2.1 PRICING INSTRUCTIONS

C2.2 BILL OF QUANTITIES

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

C2.1 PRICING INSTRUCTIONS

1. Measurement and payment shall be in accordance with the relevant provisions of the SABS/SANS 1200 sections.
2. The units of measurement described in these Bills of Quantities are metric units. Abbreviations used in these Bills of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kPa	=	kilopascal
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
m ²	=	square metre
m ² -pass	=	square metre-pass
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
MN	=	meganewton
MN.m	=	meganewton-metre
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional sum
PC sum	=	Prime Cost sum
R/only	=	Rate only
sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	Work day

3. For the purpose of these Bills 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 SABS/SANS 1200.

Quantity: The number of units of work for each item.

Rate: The agreed payment per unit of measurement.

Amount: The product of the quantity and the agreed rate for an item.

Lump sum: An agreed amount for an item, the extent of which is described in the Bills of Quantities but the quantity of work of which is not measured in any units.

4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
5. It will be assumed that prices included in the bills of quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards)
6. The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
7. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered such items
8. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
9. The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in these Bills of Quantities.
10. Reasonable compensation will be received where no pay item appears in the Bills of Quantities in respect of work required in terms of the Contract and which is not covered in any other pay item.
11. The short descriptions of the items of payment given in these Bills of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
12. The payment reference numbers appearing in the Bills of Quantities refer to the corresponding item numbers in the SABS/SANS 1200.
13. Those parts of the contract to be constructed using labour-intensive methods have been marked in the Bills of Quantities with the letter L in a separate column filled in

against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract. The items marked with the letter L are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works.

- 14 Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
- 15 The quantities allocated in the Bill of quantities are for evaluation purposes only, therefore the allocation of work will be subject to the availability of the budget in the financial year.

15.1 General

- a) The contractor must price each item in the bill of quantities in **BLACK INK.** Reproduced computer printouts of the bills of quantities will not be acceptable.
- b) The rates and prices to be inserted in the bill of quantities shall cover all the services and incidentals 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 a basis for assessment of payment for additional work that may have to be carried out.
- c) 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. The contractor will not be paid for items against which no rate or lump sum has been entered in the bill of quantities.
- d) Should the contractor indicate against any item that compensation for such item is included in another item, the rate for the item included in another item shall be deemed nil.
- e) **ALL SUCCESSFUL BIDDERS PRICES SHALL BE ADDED AND AN AVERAGE OF ALL SHALL CONSTITUTE THE FINAL RATE ON THAT SPECIFIC ITEM**

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5

C2.2 BILL OF QUANTITIES

ANNEXURE A: BILL OF QAUNTITIES

CONSTRUTION OF DUVHA EXT 2, 132kV BULK SUBSTATION AND LINE					
ITEM	DESCRIPTION				AMOUNT
Sec. A	Preliminary and General				
Sec. B	11kV Equipment to Substation				
Sec. C	132kV Equipment to Substation				
Sec.D	132kV Overhead Line to Substation				
Sec. E	22kV Overhead Line to Substation				
Sec.F	Commissioning and Maintenance				
Sec. G	Civil Works				R 125,000.00
Sec. G	5% Contingency: To be expended as and when required upon instructions from the Engineer and against which the contractor shall have no claim except where such instructions is passed in writing.				
SUB-TOTAL CONSTRUCTION COST for 132/11kV, 40MVA Substation Duvha					
15% VAT					
TOTAL PROJECT COSTS (INCL. VAT)					

ANNEXURE: A: BILL OF QUANTITIES**CONSTRUCTION OF A 132/11kV BULK SUBSTATION AT DUVHA PARK EXT 2.**

ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
	SECTION A							
A	PRELIMINARY AND GENERAL CHARGES							
A.1	GENERAL							
A.1.1	Locally Identify, secure and clear site (20x30m) including rental.	Sum	100%					
A.1.2	Establishment of Site Camp (70x100m) (i.e fence & gate).	Sum	100%					
A.1.3	Establishment of 1 x (6x2.4x2.7m) Material Storage.	Month	36					
A.1.4	Establishment of 1 x (6x2.4x2.7m) air-conditioned Site Office with fire extinguisher and first aid services, security lighting, barricading, warning signs.	Month	36					
A.1.5	Site office furniture (boardroom table with chairs, 1 x general purpose cabinet, drawing table, notice & soft boards.	Sum	100%					
A.1.6	Establishment of 1 x Ablution unit that contain male/female toilets, 2xurinals, 2xbasins and 2xchange rooms.	Month	36					
A.1.7	Establishment of security guard house at the entrance of the site camp.	Month	36					
A.1.8	Water and Electricity connections for Site Office and Ablution.	Sum	100%					
A.1.9	Removal of Site Establishment on completion of project.	Sum	100%					
A.1.10	INSURANCE AND GUARANTEE: Allow for the provision of insurances as stipulated in the Conditions of Contract, for the duration of the contract	Sum	100%					
A.1.11	TRANSPORTATION: Allow for transportation of materials and equipment to site.	Sum	100%					
A.1.12	MEETINGS: Allow for attendance to all site meeting, inspections including hosting and providing refreshments once a month	Month	36					
	Sub-Total for A1							

ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
A2	PRELIMENARIES WHEN REQUIRED							
A.2.1	Induction and Medical – General workers per task.	Month	36					
A.2.2	Induction and Medical – Sub-Contractor per task.	Month	36					
A.2.3	Management of Local Sub-Contractors per task.	Month	36					
A.2.4	Preparation and submission of a construction program to the Engineer as required in the documents per task.	Sum	100%					
A.2.5	Allow for marking-up a full set of drawings to show the exact positions of cables, cable joints, road crossings etc. These "As build" drawings must be handed to the engineer at commissioning of the equipment. Provide hard + soft copies	Sum	100%					
A.2.6	Allow for marking-up a full set of all maintenance manuals, including all technical literature, test certificates and wiring diagrams. Provide hard + soft copies	Sum	100%					
A.2.7	Supply and Install name board (2450mm x 2450mm), with the projects, contractor, client and consultants, EPWP, Department of Energy and Minerals details on - prior approval from client required per task. Mount on 2 x 7m wooden pole. Include all accessories for execution of the job.	Sum	100%					
	Sub-Total for A2							
ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
A3	COMPLIANCE AND SECURITY OBLIGATIONS:							
A.3.1	Allow for Compliance with Safety Requirements as set out in the OHS Act and its regulations. This will include but not limited to: Safety plan, safety file, COIDA compliance, appointingof safety representatives and all legal appointments, etc	Sum	100%					

A.3.2	Allow for Compliance with Safety Requirements as set out in the OHS Act. This will include holding of safety meetings, Safety talks, toolbox talks, the co-ordination of all safety requirements for all sub-contractors per task.	Month	36					
A.3.3	Allow for compilation of all necessary documents to ensure issuing of Construction Permit by Department of Labour and Employment. This task will only deem completed once Permit has been issued.	Sum	100%					
A.3.4	Allow for Compliance with Occupational Health and Safety Measures in workplaces per task. This includes supply of relevant equipment and PPE, administrative controls and risk assessment. Measures must be applied to every personnel involved in the project on site including General Local labourers and Sub Contractors. (i.e Screening, sanitisers, disinfectants, masks, risk assessment, reporting, training) per task.	Month	36					
A.3.5	ENVIRONMENTAL: Comply with environmental requirements	Month	36					
	PERMITS AND NOTICES:							
A.3.6	Allow for obtaining all necessary permits and giving of notices and co-operation with other trades.	Sum	100%					
Sub-Total for A3								
ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
A.4	PROVISIONAL / PC SUMS:							
	For Work to be executed through Local Employment, nominated sub-contractors and Special Services							
A.4.1	Remuneration for Community Liaison Officer	Month	36	R 8 000.00	R 288 000.00	R 0.00	R 0.00	R 288 000.00
A.4.2	Remuneration for sum of 3 x Security Officers	Month	36					
A.4.3	Remuneration for OHS Representative	Month	36					
A.4.4	Remuneration for OHS Agent, to visit the site once a month.	Month	36					
A.4.5	Remuneration for OHS Officer, Full time on site.	Month	36					
A.4.6	Land Surveying & Profiling	Sum	100%	R 350 000.00	R 350 000.00			R 350 000.00
A.4.7	Geo-Technical Investigation	Sum	100%	R 350 000.00	R 350 000.00			R 350 000.00
A.4.8	EIA Consultant - Investigation, ROD, advertisement, etc.	Sum	100%	R 450 000.00	R 450 000.00			R 450 000.00
A.4.9	Legal Services, servitude registration.	Sum	100%	R 250 000.00	R 250 000.00			R 250 000.00
A.4.10	Site Agent - Monthly Salary, Accommodation, Travelling.	Month	36					
A.4.11	Allow to test and commission the complete installation in the presence of the engineer and the client's representative and hand over for commercial use	Sum	100%					
	FIXED TENDER PRICE:							
A.4.12	Allow for forward cover on FOREX and Local to RSA price escalations to keep tender price fixed and firm for contract period	Sum	100%					
Sub-Total for A4								

ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
A.5	SKILLS DEVELOPMENTS:							
A.5.1	Make provision for the salary and providing skills to three student for the duration of the project. (1 x Student per 12 month period)	month	36					
A.5.2	Make provision for training of three community members to be Health and Safety Representative. (1 x Community member per 12 month period)	Sum	100%					
A.5.3	Make provision for training of Subcontractor: SAQA QUALIFICATION ID: 20813 NATIONAL CERTIFICATE: CONSTRUCTION CONTRACTING NQF Level 2 (training and mentoring until completion)	month	36					
A.5.4	Make provision for three community members to be trained as Supervisors and be deployed as team leaders: SAQA QUALIFICATION ID: 49053 NATIONAL CERTIFICATE: SUPERVISION OF CONSTRUCTION PROCESSES NQF Level 4 training and mentoring until completion). (1 x Community member per 12 month period)	month	36					
Sub-Total for A5								
Sub-total A (A1+A2+A3+A4+A5) To be forwarded to summary of schedules								
ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
	<u>SECTION B - 11kV EQUIPMENT TO SUBSTATION</u>							
B.1	<u>11kV CABLES (LIC)</u>							
B.1.1	Supply and install 300mm² Single core (4/phase), 11/11kV, Cu,cable from Transformer to the 11kV Switchgear.	m	1000					
B.2	<u>11kV CABLE JOINTS/TERMINATION (LIC)</u>							
B.2.1	Raychem/Heatshrink type cable termination kits, including all material to terminate 300mm², Single core, 11/11kV, Cu cable	No	24					
B.3	<u>11kV INDOOR SWITCHGEAR</u>							
	As specified on drawing , supply and install the complete 11kV indoor switchboard with metering, protection, earth switches & SCADA consisting of:							
B.3.1	Complete Control and Protection Panel for 11kV switchgear	No	1					
B.3.2	Incomer panels (from 20MVA Transformers): SF6, 2400A, (CT's: 1200 - 1)(Class 0.2 for protection/Class x for metering) Complete with Metering Unit	No	2					

B.3.3	Feeder panels: SF6, 800A, (CT's: 400 - 5)(Class 0.2 for protection/Class x for metering) Complete with Metering Unit	No	6					
B.3.4	Bus section: SF6, 2400A	No	1					
B.3.5	Delivery to site and installation at site	sum	100%					
B.4	<u>EARTHING (LIC)</u>							
B.4.1	Supply and delivery of all materials to complete the substation cable duct earth bars and earthing of all items of equipment. Earthing resistance must be less than 1 ohms after installation of the earthing equipment.	sum	100%					
B.4.2	Determination of soil resistivity before and after installation of earthing equipment.	sum	100%					
B.4.5	Supply and delivery of 150mm ² bare stranded copper conductor to be laid with 300mm ² cable.	m	1000					
B.5	<u>BATTERY CHARGER AND BATTERIES</u>							
	Battery charger unit, complete and suitable for 110V, Ni Cad batteries including all interconnections and test equipment. Separate battery chargers for 11kV & 132kV control and protection.	No	2					
B.6	<u>MULTICORE CABLING (LIC)</u>							
B.6.1	Complete supply and delivery of all cables, glands, terminals, connectors, lugs, strapping, cable trays inside substation building and all the other materials required to complete the multicore cabling installation to provide complete protection, indication.	sum	100%					
B.6.2	Complete supply and delivery of all cables, glands, terminals, connectors, lugs and all the other materials required to complete the multicore cabling installation.	sum	100%					
SUB-TOTAL FOR PAGE CARRIED OVER TO NEXT PAGE.								
ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIVERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
	SUB-TOTAL FROM PREVIOUS PAGE.							
B.7	<u>LOW VOLTAGE EQUIPMENT (LIC)</u>							
B.7.1	Low Voltage (400/230V) Power cabling, including switches, luminaires, etc. for the substation building.	sum	100%					
B.7.2	18000 BTU Air conditioning Units complete for the substation building.	No	3					
B.8	<u>TOOLS, OPERATING LEVERS, KEYS AND EQUIPMENT RACKS</u>							
	Supply of a complete set of case-hardened tools for maintenance on all equipment supplied under this contract a suitable cabinet or rack.	Set	2					

ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
C	SECTION C : 132kV EQUIPMENT FOR SUB (LIC)							
	SUPPLY DELIVER AND INSTALLATION:							
C.1	Supply 20MVA, 132/11kV, YNd1, Z=10% transformer complete.	No	2					
C.2	Supply concrete foundations with oil catch put for 20MVA, 132/11kV, YNd1 transformer complete with drain valve system.	No	2					
C.3	Supply 11kV NEC (360A)/NER complete with steel structures, foundations and CT's and 100kVA (11kV/400V) Aux transformer as one unit.	No	100%					
C.4	Supply 132kV Transformer (X2), All Switchgear, Bus section, control and protection panels complete , fully equipped with all indication, metering, protection and control, Scada including marshalling kiosk.	Sum	100%					
C.5	Supply Outdoor 132kV Surge Arresters (20 OFF) , including steelwork and foundations, etc.to complete installation. (Incomer line, Transformer, 132kV Transformer neutral.)	Sum	100%					
C.6	Supply 11kV Outdoor Surge Arresters (8 OFF) on Transformer and on Transformer Neutral complete with brackets.	Sum	100%					
C.7	Supply 132kV Outdoor motorised isolator (8 Sets) to flexible ACSR conductor & Aluminium Basburs, Centre rotate, 31.5kA, 650 Amp, triple pole , including steelwork and foundations. (3/Set)	Sum	100%					
C.8	Supply 132kV Outdoor post type current transformer (200/100/1) unit complete, including steelwork and foundations: (3/Set)							
C.8.1	Supply CClass X for BusZone, Transformer Diff Protection (6 Sets)	Sum	100%					
C.8.2	Supply CClass X for 132kV Transformer Neutral. (Part of transformer neutral terminal.) (2 Off)	Sum	100%					
C.8.3	Supply CClass 0.2 for Metering (6 Sets)	Sum	100%					
C.8.4	Supply CClass 10P10 for O/C & E/F Protection (6 Sets)	Sum	100%					
C.9	Supply 11kV current transformer (2400/1, Class X) unit complete, including steelwork and foundations to be mounted on transformer bushings for Transformer Diff Protection. (2 Sets)	Sum	100%					
C.10	Supply Summation CT's on 132/11kV for Transformer/Busbar Diff protection. These CT's can be installed in the 132kV control and protection panels. (3/Set) (4 Sets)	Sum	100%					

C.11	Supply 132kV, SF6 Outdoor circuit breaker, 31.5kA, 650 Amp., triple pole, including steelwork and foundations.(3/Set) (5 Sets)	Sum	100%					
C.12	Supply 132kV Outdoor post top insulator to fit Aluminium Basburs and CHICKADEE ACSR Conductor, 31.5kA including steelwork and foundations for all three phases. (3/Set) (4 Sets)	Sum	100%					
C.13	Supply 132kV/110V Outdoor Voltage transformer unit complete including steelwork and foundations. (3/Set) (2 Sets)	Sum	100%					
C.14	Supply 132kV Tubular aluminium busbars (470A).	m	500					
C.15	Supply all clamps and connectors for connecting and interconnecting all flexible conductors and equipment to provide a fully functional 132/11kV substation busbar system, up to the NEC bushings.	Sum	100%					
	(e.g. Clamps include : Isolator to tube, CT's, Post Insulator, NEC, Busbar T Clamps, Tube to conductor T, Transformer HV & LV, Post Insulators 132kV & 11kV, Isolator to Flexible, Tube to conductor inline, Tube to pad inline, Flex to Flex T, etc.)							
C.16	Supply all aluminium flexible stranded conductor (CHICKADEE) for strung of busbars and interconnections.	m	1000					
C.17	Supply earthing of steel structures and equipment: 50x3 KWENA anti-theft wire for tails, Brazed connections, 10mm DIA Cu Rod for earth, Bare copper Conductor to complete earthing.	Sum	100%					
SUB-TOTAL FOR PAGE CARRIED OVER TO NEXT PAGE.								
ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
SUB-TOTAL FROM PREVIOUS PAGE.								
C.18	Supply Power cable duct structures - excavation, concrete footings, 230mm brickwalls, cover slabs, cap beams, including all formwork and reinforcing (1000 x 600mm ducts)	m	90					
C.19	Supply Control cable ducts structures - excavation, concrete footings, 230mm brickwalls, cover slabs, cap beams, including all formwork and reinforcing (500 x 500mm ducts)	m	120					
C.20	Supply Complete mimic panel with 132/11kV schematic with semaphore indication and switches	No	1					
C.21	Supply Fill substation Yard with 100mm thick, 13mm crushed stone.	m³	640					
C.22	Supply Supply and Deliver one set of Portable Earthing Equipment as specified.	Set	1					

C.23	Supply Construct kerbing around outdoor substation yard and building, 5m away from structures and building walls.	m	220					
C.24	Supply Lightning Spikes.	No	4					
C.25	Supply Steel structures (Gantry) with insulators at Connection 'point'.	No	2					
TOTAL FOR SECTION C CARRIED TO SUMMARY								
ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIVERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
D	<u>SECTION D: 132kV OVERHEAD LINES: Supply, deliver and installation complete with foundations and all relevant equipment needs for completion:</u>							
D.1	Supply, Deliver and install all required labels, danger signs complete for 132kV overhead lines (As per Eskom specifications)	Sum	100%					
D.2	Supply and install Chicadee, ACSR conductor for overhead lines (Double Circuit) from Eskom Greenside Substation to Duvha Park Ext 2 132kV Substation. Note: The pilot wire should be sized accordingly to be able to handle the tensions and weight for the purpose of stringing the Chickadee phase conductor.	m	54000					
D.3	Shield wires will be strung from the terminal structure to the column and beam gantry at Greenside and Duvha Substations. The shield wires to be used on the line will be an 18 kA OPGW conductor. The burn-off time of the earth wire allows for sufficient time for the earth fault protection to operate. DC resistance @ 20°C (ohm/km) 0.252 ohm/km, Normal Short Circuit Rating 18.68 kA	m	18000					
D.4	To determine the number of multi-frequency vibration dampers required:		240					
	Span (m)	Number of dampers per span per conductor						
	0 to 365	2						
	366 to 550	4						
		Arrangement of dampers per conductor						
		1 damper at each end						
		2 dampers at each end						
		Damper placement						
		0.38 m from clamp						
		0.32 m from 1st damper						

D.5	Fibre Optic Stringing: Supply, install / string complete: 1.1 48 Fibre 10/125 Single mode OPGW Cable, control cables, control panels, patch panels,swing cabinets, joints, terminations, all hardware and multi-frequency dampers			Sum	100																		
D.6	To determine the number of multi-frequency vibration dampers required: <table><tr><th>Span (m)</th><th>Number of dampers per span per conductor</th><th>Arrangement of dampers per conductor</th><th>Damper placement</th></tr><tr><td>0 to 365</td><td>2</td><td>1 damper at each end</td><td>0.38 m from clamp</td></tr><tr><td>366 to 550</td><td>4</td><td>2 dampers at each end</td><td>0.32 m from 1st damper</td></tr></table>				Span (m)	Number of dampers per span per conductor	Arrangement of dampers per conductor	Damper placement	0 to 365	2	1 damper at each end	0.38 m from clamp	366 to 550	4	2 dampers at each end	0.32 m from 1st damper		120					
Span (m)	Number of dampers per span per conductor	Arrangement of dampers per conductor	Damper placement																				
0 to 365	2	1 damper at each end	0.38 m from clamp																				
366 to 550	4	2 dampers at each end	0.32 m from 1st damper																				
D.7	VIBRATION DAMPERS ON THE PHASE CONDUCTOR: To minimize vibration on the Chickadee phase conductors, multi-frequency vibration dampers will be installed.																						
D.8	To determine the number of multi-frequency vibration dampers required: <table><tr><th>Span (m)</th><th>Number of dampers per span per conductor</th><th>Arrangement of dampers per conductor</th><th>Damper placement</th></tr><tr><td>0 to 365</td><td>2</td><td>1 damper at each end</td><td>0.38 m from clamp</td></tr><tr><td>366 to 550</td><td>4</td><td>2 dampers at each end</td><td>0.32 m from 1st damper</td></tr></table>				Span (m)	Number of dampers per span per conductor	Arrangement of dampers per conductor	Damper placement	0 to 365	2	1 damper at each end	0.38 m from clamp	366 to 550	4	2 dampers at each end	0.32 m from 1st damper		360					
Span (m)	Number of dampers per span per conductor	Arrangement of dampers per conductor	Damper placement																				
0 to 365	2	1 damper at each end	0.38 m from clamp																				
366 to 550	4	2 dampers at each end	0.32 m from 1st damper																				
D.9	Supply, delivery and install of the following pole structures, including 24m CONCRETE poles (40 - 206kN) as for necessary application with Insulators complete as specified. crossarm, connections and earthing and foundations complete at ESKOM Greenside sub (beginning of line) end of Overhead line (Duvha Park Ext 2 sub) +- 8km. In areas where the installation of stays is not possible or will create a hazard, self-supporting structures will be used.																						
D.10	Intermediate Concrete Pole Structure 24m. Tip Load 65kN. Completely fitted with 132kV Stand-off Insulators (Three on each side for Intermediate poles). Drawing D-DT- 7612			No	13																		
D.11	Strain pole structure complete with all insulators.(24m, 37kN), D-DT-7615. Self Supporting.			No	14																		
D.12	Self-supporting single pole terminal structures, (complete) will be used to terminate the lines at Greenside and Duvha Substations.(D-DT-7618) Consists of 2x18m and 1x20m poles			No	6																		

D.13	21m x Three Concrete Pole strain structures complete with all insulators. Turn Poles.	No	18					
D.14	Dressing off all concrete structures complete	No	51					
D.15	Supply and Install ANTI CLIMBING devices on all poles.	Sum	100%					
D.16	Supply and Install ANTI PERCHING BRACKETS on all poles.	Sum	100%					
D.17	Aircraft warning Spheres: Supply, transport and install complete in specific areas	No	6					
D.18	FOUNDATION SELECTION The correct foundation will be selected on-site where the specific pole must be placed and shall be nominated as follows:							
D.19	Type 1 Normal soils: Competent soil with equal or better consistency (strength or toughness) than one would encounter in stiff cohesive soils or dense cohesionless soils above the water table. This soil must have a broad, balanced texture (constituent particle sizes) with high average combinations of un-drained shear strength and internal angle of friction, with minimum values of 80kN/m ² and 30°, respectively. The minimum natural specific weight shall not be less than 18kN/m ³ . Maximum soil bearing pressure 300kPa.	No	0					
D.20	Type 2 Intermediate soils: A less competent soil than "Type 1", with equal or weaker consistency than one would encounter in firm to stiff swelling cohesive soils, or dry poorly graded loose to medium dense cohesionless soils above the water table. The minimum undrained shear strength shall be 40kN/m ² , and the minimum natural specific weight shall not be less than 16kN/m ³ . Maximum soil bearing pressure 150kPa.	No	0					
D.21	TYPE 3: Type 3 soils: Dry/sandy loose cohesionless soil or very soft to soft cohesive soil. Maximum soil bearing pressure 100kPa. Transport to pole position, supply and transport imported material, dispose excavated material, excavate, supply, and install complete foundation and based on a Type 3 foundation, for the following structures (Note: flange mounted foundations shall include the concrete blinding, concrete foundation, steel reinforcing including all spacers and fixtures, Top & Bottom templates, holding down bolts including all washers, nuts and torqueing, shuttering and finishing, backfill and compaction):	No	51					
D.22	Type 4 soils: Submerged cohesionless and cohesive soils. This includes all soils below the permanent water table, including soils below a re-occurring perched water table, or permeable soil in low-lying areas subjected to confirmed seasonal flooding. Maximum soil bearing pressure 50kPa.	No	0					

D.23	Excavation, bedding, backfilling, compacting and to tidy up of pole							
	- Intermediate	No	15					
	- Hard Rock	No	17					
D.24	Cement and Butimin for grouting between foundation and steel poles.	Sum	100%					
D.25	Clean all vegetation and spray Round-Up around 2m radius at each	Sum	100%					
D.26	Supply and install Earthing on all concrete structures as per Eskom specification, Poles etc. complete	Sum	100%					
D.27	All test certificates and reports as required for equipment and	Sum	100%					
D.28	MISCELLANEOUS							
D.29	Any material and labour cost the tenderer would like to include to bring about the complete overhead ACSR 132kV system.	Sum	100%					
D.30	<u>PROTECTIVE MEASURES</u>							
D.31	Barriers, drums, etc at excavations	Sum	100%					
D.32	Determination of soil resistivity before and after installation of earthing equipment.	Sum	100%					
D.33	Supply and install <u>set of Surge arrestors (3/set)</u> with crossarm, connections and earthing complete at Greenside sub (beginning of line) end of Overhead line (Duvha Park Ext 2 sub).	Set	3					
D.34	Inline Stay Assembly complete for Concrete pole.	No	28					
D.35	Bisector Stay assembly complete for Concrete pole.	No	26					
D.36	Clean all vegetation and spray Round-Up around 2m radius at each pole structure.	Sum	100%					
D.37	Pegging and clearing of line route.	Sum	100%					
D.38	Clean all vegetation and spray Round-Up around 2m radius at each pole structure.	No	31					
D.39	MISCELLANEOUS							
	Any material and labour cost the tenderer would like to include to bring about the complete overhead ACSR 132kV system.	Sum	100%					
TOTAL FOR SECTION D CARRIED TO SUMMARY								

ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
	<u>SECTION E: 22kV OVERHEAD LINES (FEEDERS) (LIC)</u>							
E.1	Supply and Deliver all required labels danger signs complete, for 11kV Overhead lines.	Sum	100%					
E.2	Supply and install Wolf, ACSR conductor for overhead line.	m	7 500					
E.2.1	Supply and install earthing for MV poles complete.	No	35					

E.3	Determination of soil resistivity before and after installation of earthing equipment.	sum	100%					
E.4	Supply, delivery and installation of the following pole structures, including 11m pole with 180mm top diameter.							
E.4.1	Stay Assembly Structure (ER-001) complete	No	14					
E.4.2	Intermediate Structure (ER-014) complete with pole	No	24					
E.4.3	End/Strain Angle Structure (ER-015) complete with pole	No	4					
E.4.4	Strain Angle (30-90) Structure (ER-027) complete with pole	No	4					
E.4.5	11m Strut Structure with bracket and accessories complete with pole	No	3					
E.5	Excavation, bedding, backfilling, compacting and to tidy up of pole excavations and stays.							
	- Intermediate	No	20					
	- Hard Rock	No	15					
E.6	Pegging and clearing of line route.	sum	100%					
E.7	Clean all vegetation and spray Round-Up around 2m radius at each pole structure.	No	35					
E.8	Supply and install set of Surge arrestors (3/set) with crossarm, connections and earthing complete. (Beginning Middle and End of Line)	Set	3					
E.9	22kV Equipment and Cable Supply deliver and complete installation:							
E.9.1	Shneider 3 Way RBR RM6 RMU	No	1					
E.9.2	50mm PVC-SWA XLPE 12700/22000V Cable	m	300					
E.9.2.1	35mm BCEW to be installed with the 50mm XLPE Cable Complete with Ferrules, Lugs and all material to complete installation	m	300					
E.9.3	50mm XLPE Cable Terminations Indoor Complete with Ferrules, Lugs and all material to complete installation	No	4					
	50mm XLPE Cable Terminations Outdoor Complete with Ferrules Lugs and all material to complete installation	No	2					
	50mm XLPE Heatshrink Cable Joint Complete with FerrulesLugs and all material to complete installation	No	3					
TOTAL FOR SECTION E CARRIED TO SUMMARY								

ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
F	<u>COMMISSIONING & MAINTENANCE</u>							
F.1	Any costs for Factory acceptance tests at Manufacturer.	Perso n/s	4					
F.2	Testing and Commissioning of all switchgear by Third Party.	PC Sum	100%					
TOTAL FOR SECTION F CARRIED TO SUMMARY								
ITEM	DESCRIPTION	UNIT	QTY (A)	SUPPLY / DELIV RATE	SUPPLY / DELIV ERY AMOUNT (B)	INST / LABOUR RATE	INST / LABOUR AMOUNT (C)	TOTAL (B+C)
G	EARTHWORKS (LIC)							
G.10	Connection costs for Sewer and Water connection.	PC Sum	100%	R 125 000.00	R 125 000.00	R 25 000.00	R 25 000.00	R 150 000.00
TOTAL FOR SECTION G CARRIED TO SUMMARY					R 125 000.00			R 150 000.00

EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: ELM 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR FOR THE CONSTRUCTION OF A TEMPORARY 5MVA, 22KV BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2. PHASE 1 OF: 132/11KV 20MVA SUBSTATION FOR DUVHA PARK EXT 2.
ENDER NO: ELM 47/2023

C3 SCOPE OF WORK

A. General Information

Purpose

The purpose of the tender is to request bids from electrical contractor for the following electrical project:

APPOINTMENT OF AN ELECTRICAL CONTRACTOR FOR THE CONSTRUCTION OF A 40MVA, 132/11KV BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2. Type of contract The scope includes supply, delivery, installation, testing, pre-commissioning and commissioning for: **APPOINTMENT OF AN ELECTRICAL CONTRACTOR FOR THE CONSTRUCTION OF A 40MVA, 123/11KV BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2.**

Emalahleni Local Municipality. The prospective electrical contractor shall include in the bid, the proposed personnel, their qualifications and professional registrations Find attached

Annexure A: BILL OF QUANTITIES.

Annexure B: DUVHA EXT 2, 132kV SUBSTATION SITE MAP.

Annexure C: DUVHA EXT 2

Annexure D: SPECIFICATIONS.

Annexure E: PRACTICE NOTE: Workplace Readiness

Annexure F: EPWP, DMRE Schedule of EPWP, SMME, SWO and BEE

Annexure G: Government Procurement – General Condition of Contract.

Annexure H: Construction Drawings

Contract Period

The contract period shall be **six (36) months** from the effective date of contract (date of commencement

DUVHA EXT 2 TOWNSHIP is a residential area ± 6km (-25. 935406 29.225059) on the Southern side of the Emalahleni CBD. Emalahleni continues to grow with new areas developing and therefore there is a growing need to offer basic services such as accommodation to more residents of Emalahleni. In order to improve the lives of the residents of Emalahleni, the Emalahleni Local Municipality, in conjunction with the

Department of Mineral Resources and Energy (DMRE) ensures that electricity is provided safely to its residents and it is properly maintained.

C. Discussion

In an effort to improve the quality of lives of the Duvha community, the Emalahleni Local Municipality has an obligation to implement the mandate of the Integrated National Electrification Programme (INEP) by electrifying communities without electricity. With funding available from the Department of Mineral Resources and Energy (DMRE), a stand have been identified at Duvha Ext 2 for the construction of a bulk substation. With the residents of Duvha Township as beneficiaries of the available funds.

This tender covers the construction of a 40MVA, 132/11kV Bulk Substation for Duvha Park Ext.2 for the town of EMALAHLENI. The purpose of the substation is to provide existing households and future houses with electricity.

This tender covers the construction of a 40MVA, 132/11kV DUVHA PARK EXT.2 BULK SUBSTATION for the town of EMALAHLENI consisting of:

- Construction of a complete 132kV overhead line (\pm 8km's) on 24m Concrete structures double stringed from Eskom supply point at Greenside Substation to the new substation position at Duvha Park Ext 2.
- 2 x 20MVA, 132/11kV transformers.
- 132kV Switchgear complete with steel structures.
- 11kV Indoor substation switchgear.
- The complete 132kV and 11kV switchgear need to be tested and commissioned with the Scada/telemetry system.
- This tenderer supply, deliver, construct and commission an fully operational 132/11kV, 40MVA Bulk Substation at Duvha Park Ext 2.

D. Location of the Works

The site is at EMALAHLENI, Duvha Park, situated close to the N12.

The Contractor will have to provide the following:

- ❖ Sanitation on site for his own use,
- ❖ All telephone facilities,
- ❖ Water and electricity for construction purposes and
- ❖ All the necessary housing facilities for his personnel.
- ❖ The Contractor shall provide in the above yard an equipped site office of sufficient size to accommodate site meetings and to keep all drawings and documents needed for the works.

Tenderer's must allow for all conditions on site in their tender, since extra claims arising from difficult site conditions in respect of transport, handling, soil conditions, loading, off-loading, labour, housing, labour unrest, etc., will not be considered.

• SITE CONDITIONS

Tenderer's must allow for all conditions on site in their tenders, since extra claims arising from difficult site conditions in respect to transport, handling, loading, off-loading, labour, housing, etc., will not be entertained.

The Tenderer must note the following aspects with regard to site conditions and shall include for these conditions in the relevant items in the Bill of Quantities.

- Access to site is by tar road.
- No crane is available for off-loading.

E. *Change in Works*

The Engineer may, from time to time by order in writing without in any way vitiating the Contract or giving to the Contractor any claim for additional payment, require the Contractor to proceed with the execution of the works in such order as in his opinion may be necessary, and may alter the order of or suspend any part of the Works at such time and times as he may deem desirable and the Contractor shall not, after receiving such written order, proceed with work ordered to be suspended until he shall receive a written order to do so from the Engineer. Where the work must of necessity be carried out in conjunction with work of other Contractors, or with that of the Employer, it shall be co-ordinated and arranged in such a manner as to interfere as little as possible with the progress of such other work so as to offer every reasonable facility to other Contractors or to employees of the Employer.

F. *Design services and activity matrix*

Description	Responsibility
Design of Works	Engineer
Concept, feasibility and overall process	Client
Basic Engineering and detail layouts to tender stage	Engineer
Final Design of Works	Engineer
Final Design to approved for construction stage	Client
Preparation of tender documentation & adverts	Engineer
Appointment of soil test / topographical surveyors	Client
Appointment of sub-contractors	Contractor
Supervision	Engineer
Preparation of as-built drawings	Contractor / Engineer
Completion certificate	Engineer / Client / Contractor

G. *Drawings*

A full set of drawings will be used exclusively for the recording of as built information by the Contractor. Only dimensions, positions, levels, co-ordinates etc. that change from the original values, will be required to be entered on these drawings. These drawings, fully marked up, will be handed to the Engineer at the issue of the Certificate of completion, which will not be issued until the as- built information has been received.

H. *Construction under Labour -Intensive Methods*

The following operations may be constructed using labour intensive methods:

- Excavation of trenches for the reticulation of all voltages.
- Excavation for and planting/installation of poles for overhead lines
- Installation of all electricity cables (joints and terminations by qualified persons)
- Subcontractor: Civil construction/Building works.
- Payments of EPWP workers to be in line with Ministerial determination.

I. SERVICE CONDITIONS

All equipment and materials shall be rated for operation under the following conditions:

Voltages Secondary	11kV
Voltage Primary	132kV
Frequency	50Hz
Phases	3
Average max. temp.	30 degrees C
Average min. temp	3 degrees C
Average relative humidity	85% at 35 degrees C
Lightning	Severe
Hail	Severe

• PROJECT DESCRIPTION

General

The project includes the supply, delivery, installation, construction and commissioning of:

- 2 x 20MVA, 132/11kV transformer.
- 132kV switchgear complete with steel structures.
- The 11kV Indoor substation with switchgear.
- The complete 132kV and 11kV switchgear need to be tested and commissioned with the Scada/telemetry system.
- The contractor has to make all arrangements with the Municipality at least seven (7) days prior to any planned shutdowns, for notification to consumers.

• DELIVERY AND ERECTION

The transportation to site, off- loading, erection and testing of the complete 132/11kV system forms part of this contract.

• EARTHING

- The earth mat system will be according to specification with bare stranded copper conductors and KWENA connections to steel structures. Allocation has been made in the Bill of Quantities for this item and the contractor must make sure that the amount he/she allocates for earthing is sufficient to cover all costs.
- The Tenderer shall allow in the Bill of Quantities for the determination of soil resistivity before and after the installation of the earthing system. If necessary, electrode type earthing will be installed, using 70mm² stranded copper conductors, in positions as indicated by the engineer. (The contractor shall determine the soil resistivity in the presence of the Engineer). Specifications on electrode type earthing will be given by the engineer if and when applicable.

• 11kV CABLING

- 4x300mm² for each phase, Single core, Cu, XLPE 11/11kV cable. This cable will be connected from the 20MVA transformers to the 11kV switchgear.

• 230V CABLING

- Part of this contract is the installation of a 100kVA Auxiliary transformer with NEC as one unit at the 20MVA transformers for the supply of electricity to the new building and yard at the new 132/11kV Duvha Park Ext 2 substation. The following cables need to be supplied and installed.
- 16mm², Cu PVC 1000/600V, 4 core for substation building supply.
- 10mm², Cu PVC 1000/600V, 2 core for terrain lights.

- **BATTERY CHARGER AND BATTERIES**

The Tenderer shall include in the Bill of Quantities for all equipment necessary for the proper functioning of the battery charger with NiCad batteries for the 132kV switchgear and the 11kV switchgear and the UPS/Inverter (5kVA) for lighting and plugs back-up

As specified. All costs for cable connections between the battery charger, DB and the switchgear must be included in rates given in the Bill of Quantities.

The units shall be rated at minimum 100AH and shall comprise 400 NiCad batteries, 100A, 231V charger and enclosure. Notwithstanding the above, the unit shall be adequately rated to suit the equipment offered by the tenderer.

General

The erection costs shall include the supply and fitting of the cell-to-cell and row-to-row connectors. These shall be suitable for the battery discharge duty and shall be suitably braced.

The units shall be of floor standing self-contained type.

The successful tenderer must submit detailed drawings and technical specifications. These must include all details necessary for maintenance purposes, as well as wiring diagrams, schematics and complete setting up instruction of the control circuitry.

Battery Cells

The battery bank shall consist of a suitable number of Nickel Cadmium Cells.

The rated capacity shall be 15 Amp hour at the five-hour rate.

The normal electrolyte level, and the recommended fully charged specific gravity, shall be clearly marked on each cells container.

Charger and Housing

The charger equipment, instruments, indicators and DC fuses switchboard are to be mounted in a cabinet fabricated of sheet steel of not less than 2mm thickness.

The charger must be of the limited, current, constant voltage type.

Current rates and voltage levels are to be as recommended by the battery manufacturer but two voltage levels are required for normal service conditions, 'float' and 'boost'

The following shall also be provided on the front of the battery charger cubicle

- AC ammeter
- DC ammeter to measure total charger output
- DC ammeter to measure the standing current (i.e. excluding closing and tripping loads) □ Battery earth fault indicator.
- Neon AC mains healthy indication.

The following alarms are to be provided each with two pairs of voltage free contacts, which close in an alarm condition. Both contact pairs of all alarms shall be wired to the cable terminating connectors.

- DC under-voltage alarm, with 90% setting
- AC supply fail alarm with 20 seconds time delay
- Charger fail alarm
- Battery earth fault alarm

All fuses, switches, push buttons, instruments, indications and terminal outputs must be clearly labelled.

3.6.7 SUBSTATION BUILDING

The substation building hosting the 132/11kV control and protection panels will be constructed as per attached drawings. Each phase of the building process needs to be approved by the Consulting Engineer before the next phase may proceed, e.g. foundation trenching, foundation pouring, etc. Test cubes for concrete need to be supplied with the test results on the foundation, floors and concrete slabs. The tenderer needs to make sure that the 132kV control and protection panels will be fitted neatly in the space provided.

Toilets and water connections need to be supplied and installed completely with all pipes and fittings as per Bill of Quantities. A PC Sum has been allocated for the substation building and the successful contractor need to get three (3) quotations from local building contractors.

A telemetry/SCADA unit must also be installed for the 132 & 11kV control and protection.

3.6.8 VOLTAGE TRANSFORMER

The voltage transformers will be protected with suitable HT fuses. The voltage transformers will be outdoor post top type mounted on a steel structure as per attached drawings. The burden of the voltage transformers must be enough for the equipment offered by the tenderer with one feeder in operation. A change-over relay between the two incoming feeders will be part and parcel of the control and protection scheme.

3.6.9 22/11kV SWITCHGEAR

Specifications of the 22kV Switchgear is as per attached drawings.

The successful contractor needs to make sure that all protection is operating perfectly and provision has been made in the Bill of Quantities to make use of a Third, independent person to re-commission all protection. Protection relay specification for the 132 & 11kV is as per attached drawings.

3.6.10 PROTECTION RELAYS & SCADA

The telemetry/Scada specified is an indication of the minimum requirements. The tenderer can offer similar.

The installation of a radio control telemetry system for the substation forms part of this contract. Due to the fact that telemetry forms part of the total control of the major substations, the instalment of the total system is called for in this tender.

RTAC-SEL-3530 Gateway

The information processor shall operate a serial and Ethernet communications network. It shall provide a combination of functions that include deterministic logic processing, automatic transmission of outgoing messages and processing of responses, data scaling, data aggregation, simultaneous collection of data from multiple server devices, and simultaneous data access for multiple client (master) devices.

Intelligent and Secure Components. All electronic equipment shall continuously self-test and report internal errors. They shall also have a hardwire contact indicating device health.

IEC 61131-3 3.6.8 VOLTAGE TRANSFORMER

3.6.9 11kV SWITCHGEAR

3.6.10 PROTECTION RELAYS & SCADA RTAC-SEL-3530 Gateway

IEC 61131-3 Programming. The system shall include an integrated IEC 61131-3 programming environment for the information processor, with the ability to monitor and control every protective relay and Ethernet distributed I/O module in the substation continuously. The IEC 61131-3 programming environment shall be integrated in one software package with the communications protocol mapping environment. The system shall have access to the communication control blocks for user defined access.

Role-Based Security. The information processor shall incorporate independent user-based security with strong passwords, role-based accounts, and settable account expiration dates. The system shall provide a mechanism to map security-related system tags into SCADA reports.

Central Authentication. The information processor shall use Lightweight Directory Access Protocol (LDAP) to provide central user account authentication.

(Optional) Integrated HMI. The information processor shall support an optional integrated web-based human-machine interface (HMI) that provides visualization and control of data tags.

Selectable Processing Interval and Solve Order. The information processor shall include a method to configure the deterministic processing interval for protocol communications and custom logic. The

information processor shall also include a method to configure the processing sequence of software tasks. The processing interval shall be settable to as fast as 4 ms.

Ethernet Communications Ports. The information processor shall have two Ethernet ports that can operate simultaneously on different networks through independent MAC addresses.

Synchrophasors. The information processor shall be capable of receiving synchronized phasor measurement data via the IEEE C37.118 protocol on all serial and Ethernet ports to as fast as five messages per second.

Engineering Access. The information processor shall have methods to create transparent connections between any two serial or Ethernet communications ports for engineering access.

SEL_2730M - Managed Network Switch

Ease-of-Use. Simplify configuration and maintenance with a secure web interface that allows convenient setup and management. Configure settings offline using Software or through an exported settings file that can be imported later on the switch.

Bridge Protocol Data Unit (BPDU) Guard. Improve network robustness by enabling BPDU Guard to disable a port when unexpected BPDUs are received

Port Rate Limiting. Prevent network storms from disabling your network by configuring maximum allowed rates for ingress (incoming) or egress (outgoing) traffic on each port.

Virtual Local Area Networks (VLANs). Segregate traffic and improve network organization and performance. Take advantage of IEEE 802.1Q-2005 VLANs to separate IEC 61850 GOOSE messages from other traffic with as many as 4094 LANs.

Security and Monitoring. Increase security by taking advantage of SNMPv3 and HTTPS features. SNMPv3 provides secure network management and is inter operable with existing network management systems (NMS).

An HTTPS web interface provides secure and intuitive switch management. Map system and security events to configurable alarm contact behavior for alarming through an external system such as an existing SCADA network

Port Mirroring. Monitor ingress and egress traffic for viewing network statistics and performing troubleshooting.

User-Based Accounts. Provide user accountability and separate authorization levels for configuration and maintenance. Use LDAP or RADIUS with two-factor authentication for centralized user authentication

SEL-751LMD (Large screen) - 11kV Feeders, Incomers and Bus Couplers

Feeder protection shall be provided by a microprocessor-based relay equipped with the following protection, monitoring, control, automation, and reporting functions. Self-checking functions shall be included:

Protection and Control

- Phase, residual, and negative-sequence overcurrent & inverse-time overcurrent elements with optional directional control
- Breaker/contactors failure
- Arc-flash detection and arc-flash overcurrent integrated
- Line/cable thermal elements per IEC 60255-149
- Over- and under- voltage elements
- Over- and under frequency
- Rate-of-change of frequency
- Loss-of-potential
- Fast rate-of-change of frequency
- Second- and fifth-harmonic blocking

Adaptive phase overcurrent elements: The relay shall incorporate adaptive phase overcurrent elements that perform reliably in the presence of current transformer saturation, dc offset, and off-frequency

harmonics **Synchro phasors:** The relay shall include operation as a phasor measurement unit (PMU) following the IEEE C37.118-2005 Standard for Synchro phasors for Power Systems.

Automation: Logic control equations with Boolean and math equations capability for logic and control

Touch screen display: The front panel shall be capable of displaying controllable bay screens, metering and monitoring data, targets, events, summary and SER information, relay status and configuration, controllable relay operations, editable settings, and the rotating display settings

- Station battery monitor with two levels of detection
- Breaker wear monitoring
- Event report with arc-flash light input

SEL-487E-3 - Transformer Protection 132/11kV

Transformer Differential Protection. The relay shall include a single, three-phase low-impedance current differential element with adaptive restraint/operate slope characteristics.

Negative-Sequence Differential Protection. The relay shall include negative-sequence differential protection for turn-to-turn fault detection within the transformer. The negative-sequence differential element shall detect turn-to-turn faults as low as two percent of the total winding.

Transformer Inrush and Over excitation Detection. The relay shall incorporate 2nd, 4th, and 5th harmonic blocking. In addition, 2nd and 4th harmonic restraint shall be provided. These restraints and blocking elements may be used independently, or in combination to prevent restrained differential element operation during inrush or over excitation conditions. An independent fifth-harmonic element shall be included to warn of transformer over excitation conditions. Wave-shape-based inrush detection addresses inrush conditions that contain low 2nd and 4th harmonic content.

External Faults. The relay shall detect an external fault and enter into a high-security mode.

Restricted Earth Fault Protection. The relay shall provide three separate restricted earth fault (REF) protection elements for the detection of ground faults in wye-connected windings.

Breaker Failure Protection. The relay shall include internal breaker failure protection with retrip functions for each of the terminals, and be selectable to also accept external breaker failure protection.

Relay & Automation Logic. The relay shall include programmable logic functions for a wide range of user configurable protection, monitoring, and control schemes. Logic shall have the ability to use relay elements, math functions, comparison functions, and Boolean logic functions

Synchro phasors. The relay shall provide high-accuracy, synchro phasor data that is compliant with the IEEE C37.118 synchro phasor data standard. The IEEE C37.118 synchro phasor data shall be supported on serial and Ethernet ports of the relay.

Substation Battery Monitor. The relay shall measure and record the substation battery voltage and provide ground and excess ripple detection. High- and low-voltage level settings shall be provided for alarm and control purposes

Through-Fault Event Monitor. The relay shall provide for the capability of reporting fault current level, duration, and date/time for overcurrent events through the differential protection zone. Through-fault monitoring shall provide accumulated through-fault levels, number of through-faults and the total consumed through-fault capacity of the transformer

HMI Display. The relay shall include custom configurable display information to display status, analog quantities with units, user-defined labels, and alarm information.

Bay Display. The bay control shall have the ability to display one-line bay diagrams on the front-panel display. The bay display shall be interactive to view the status and control of breakers and disconnect switches.

Operator Controls. The relay shall include operator control pushbuttons on the relay front panel. Each pushbutton shall be programmable and accessible in the bay control logic.

SEL-451 Bus Coupler Protection 132kV

Adaptive phase overcurrent elements: The relay shall incorporate adaptive phase overcurrent elements that perform reliably in the presence of current transformer saturation, dc offset, and off-frequency harmonics

Breaker Failure Protection. The relay shall include internal breaker failure protection with retrip functions for each of the terminals, and be selectable to also accept external breaker failure protection.

Relay & Automation Logic. The relay shall include programmable logic functions for a wide range of userconfigurable protection, monitoring, and control schemes. Logic shall have the ability to use relay elements, math functions, comparison functions, and Boolean logic functions

Synchro phasors. The relay shall provide high-accuracy, synchro phasor data that is compliant with the IEEE C37.118 synchro phasor data standard. The IEEE C37.118 synchro phasor data shall be supported on serial and Ethernet ports of the relay.

Substation Battery Monitor. The relay shall measure and record the substation battery voltage and provide ground and excess ripple detection. High- and low-voltage level settings shall be provided for alarm and control purposes

HMI Display. The relay shall include custom configurable display information to display status, analog quantities with units, user-defined labels, and alarm information.

Bay Display. The bay control shall have the ability to display one-line bay diagrams on the front-panel display. The bay display shall be interactive to view the status and control of breakers and disconnect switches.

Operator Controls. The relay shall include operator control pushbuttons on the relay front panel. Each pushbutton shall be programmable and accessible in the bay control logic.

3.6.11 TRANSFORMER SPECIFICATIONS

The tenderer will provide 2 x 20MVA, 132/11kV, Z=10% transformer for this contract. The second 1x 40MVA transformer will be supplied as a next phase.

The following transformer specifications forms part of this tender:

- The transformers will be of size 20MVA, 132/11 kV, YNd1 and shall be capable of operating continuously.
- Metering and protection current transformers shall be fitted on outdoor steel structures as indicated on the attached drawings. The tenderer shall supply the equipment necessary for line drop compensation, and any other feature peculiar to the 40MVA transformer. Terminal markings for the current transformers shall indicate both the polarity of the primary (where applicable) and secondary terminals and the current transformer designation which shall indicate the phase or neutral connections in which they appear and the sequence relative to other current transformers in that connection.
- The transformers will have tapings between +5% to -15% of 132kV.
- The power transformer manufacturer shall provide any special voltage transformers or other equipment required specifically for his transformer.
- The BUCHHOLZ relay shall be fitted with tripping and alarm contacts and shall be so designed that the relay can be mechanically operated for testing purposes.
- The Winding Temperature Indicators must consists of:
 - Dial indicating the temperature in °C and fitted with a reset table maximum temperature indicator. Pair of adjustable alarm contacts which can be set to close at a predetermined temperature, are to be provided and, in addition, a pair of contacts for tripping purposes.
 - Dial-type oil thermometers shall be graduated in °C for registering “top oil” temperatures. The instrument shall be provided with a resettable maximum temperature indicator and a pair of adjustable alarm-contacts which can be set to close at a predetermined temperature. An additional set of adjustable contacts shall be provided for tripping purposes.
- All alarm contacts shall be suitable for making or breaking the required current at the specified alarm and tripping voltage. Any auxiliary relays associated with trip circuits shall be D.C. operated and suitable for the specified alarm and tripping voltage. Alarm and trip contacts shall be provided with electrically independent and ungrounded circuits.
- The transformers is provided with a “on-load” tap-changer on the high voltage windings of the transformer.
- A contact, wired out to separate terminals, shall be provided for monitoring of the tripping of the HV circuit breaker controlling the transformer in the event of an over current occurring simultaneously with the operation of the tap-changer diverter switch.
- Voltage and current transformers necessary for the control and protection of the tap changer shall be supplied by the tenderer via the 11kV switchgear.
- The control circuits shall be so arranged that it is impossible to energise the main transformer, by means of control selection, through the secondary windings of associated auxiliary and voltage transformers.
- **The following protection will be standardized:**

- ✓ **AEBERLY REG-DA: Relay for Voltage Regulation,**
 - ✓ **SEL 451-5, SEL487 E-3-4, SEL751LMD: Transformer Diff protection, restricted e/f, Bus Section, O/C & E/F**
- The following tap-changer controls and indications shall be provided in a Control Panel inside the Substation Building:

Control Equipment Detail

Each transformer control panel shall be provided with the following equipment:

- One - Voltage Regulating relay and such auxiliary equipment as may be necessary to provide full automatic control of the secondary voltage of the transformer.
- All - selector switches required by means of which any one of the transformers may be selected as a "Master" or controlling unit, or to arrange for independent operation.
- One - Auto / Manual control position selector switch.
- One - Tap-position indicator with the tap positions and corresponding voltages clearly marked.
- One - Voltmeter.
- One - Selector switch for manual remote operation of the tap changer, ie. "Raise" and "Lower" voltage.
- One - Relay with flag indicator and alarm contacts which shall prevent any further operation of the tap changers from taking place should any one or more units fail to keep in step with the master unit.
- One - Under voltage relay with flag indication and alarm contacts to immobilize the tap-changer in the event of control voltage failure.
- Equipment for the "master-Follower" scheme needs to be duplicated in all control cubicles.

2. Master-Follower Operation Control

- It shall be possible to run any two transformers in parallel with either one acting as the Master unit. It shall be possible to select any one of the two transformers operating in parallel as the "Master" unit and the remaining unit ("Slave") shall automatically remain in step with this Master unit whether controlled manually or automatically by its own voltage control relay.
- It shall be possible to run any transformer as a single unit operating independently.
- All instruments, pushbuttons and indication relays shall be mounted on the front of the control panel. Other control and interlocking relays may be mounted inside the cubicle.
- **AEBERLY REG-DA: Relay for Voltage Regulation,**

3. Indications

- "Tap-changer in Progress" indicating lamp.
- Tap position indicator with facilities for accurate load-burden calibration. The instrument face shall indicate tap-positions.
- Fuses and links.
- Voltmeters wired to terminal board via separate fuses.

4. Voltage Regulating Equipment

- An approved voltage regulating relay of the solid state electronic type, designed to operate from a normal energising voltage of 100 V, shall be provided for each transformer to automatically maintain the voltage of the LV busbars supplied from the transformer within adjustable limits.

- The control circuits shall be so arranged that it is impossible to energise the main transformer, by means of control selection, through the secondary windings of associated auxiliary and voltage transformers.
- All wiring from alarm and tripping contacts shall be brought onto a terminal box situated at a convenient height on the transformer. Terminals shall have "KLIPPON" connectors. Terminations of the type where clamping screws are in direct contact with the wire, are not acceptable.
- All cabling between the transformer and the instrument cubicle, local control equipment and the control panel in the substation, shall be the responsibility of the Contractor.
- The H.V. bushings shall be of the oil-filled condenser type and visual means of determining the oil level in the bushing shall be provided.
- Heavy under base for plinth mounting.

3.6.12 DESIGN CHARACTERISTICS AND SCOPE OF SUPPLY

The following design parameters are applicable and similar equipment can be offered where a specific type is called for: General:

PARAMETER	HIGH Voltage	MEDIUM Voltage
Nominal voltage	132kV	11kV
Impulse withstand voltage	650kV	95kV
Minimum creepage distance	2500mm	380mm
Power frequency withstand voltage (1min)	275kV	28kV
Fault level (3 sec)	25kA	25kA
Rated current	630A	1200A
Rated frequency	50Hz	50Hz
Minimum ground clearance	2500mm	2500mm
Minimum section clearance	3200mm	2590mm
Minimum phase to phase	2500mm	230mm
Minimum phase to ground	1500mm	180mm
Maximum line tension/phase	4,5kN	NA
Maximum E/W tension	2,3kN	NA
Design wind pressure	750Pa	750Pa
Location	Outdoors	Indoors
Minimum safety factor	2,5	2,5
Altitude above sea level	1800m	1800m
Ambient temperature	-5 to 40C	-5 to 40C
Pollution	Heavy smog	Heavy smog
Humidity	30 - 82% ave. (10% probability)	30 - 82% ave. (10% probability)

132kV Current Transformers:

Type	Outdoor
Nominal System Voltage	132kV, 50Hz
Quantities and Ratios	See attached Drawings
One minute power frequency test Voltage	275kV
Impulse withstand voltage	650kV
Highest system voltage	145kV

System	3-phase, neutral solidly earthed
Short time current and duration	25kA for three seconds 63kA Peak
Terminals a) Primary b) Secondary c) Earth	Suitable for use with specified flexible aluminium conductors Stud type inside suitable terminal box for secondary cable Stud type to terminate copper earth connection.

132kV Post Type Voltage Transformers:

Type	Outdoor
Nominal System Voltage	132kV, 50Hz
Quantities and Ratios's	See attached Drawings
One minute power frequency test Voltage	275kV
Impulse withstand voltage	650kV
Rated voltage factor	1.2 continuously
System	3-phase, effectively earthed
Transformation ratio	As per Dual Ratio configuration
Accuracy class	1.0
Rated output	100VA minimum per phase
Connection	Line to Earth
Terminals a) Primary b) Secondary c) Earth	Suitable for use with specified flexible aluminium conductors Stud type inside suitable terminal box for secondary cable Stud type to terminate copper earth connection.

Surge Arresters

Rated voltage	132kV
Rated discharge current	10kA with 8/20 microsecond waveshape
Discharge medium	Zinc oxide blocks
Location	Outdoor station type
Counters	1 per phase
Nominal system voltage	132kV
Highest service voltage	145kV
Impulse insulation level of substation	650kV
System	50Hz, 3-phase, effectively earthed
Atmospheric conditions	HEAVY pollution and corrosion
Rated reseal voltage	116kV minimum
1, 2/50 micro-second impulse spark-over voltage	325kV maximum
Front of wave spark-over voltage	375kV maximum
Power frequency spark-over voltage	200kV rms minimum
Maximum residual voltage with 8/20 microsecond, 10kA current impulse	400kV

Surge arrester type and routine testing	To be done in accordance with Bs 2914 of 1972. Type test certificates are to be provided with tender
Mounting arrangements	To be mounted on steel structures.
Terminals: Main	Suitable to terminate stranded aluminium conductor.
Earth	Suitable to terminate copper conductor.

11kV Cable:

11kV cable PILCSWA Single/Three core rated as follows shall be supplied:-

Conductor	Copper
Size	300/120/70mm ²
Insulation	PILCSWA
Screen	Belted
Sheath	PVC
Armour	Al wire
No. of parallel cables per phase	3/Single Core

11kV cable should be installed from the terminals of the new transformer on the aluminium busbars between the transformer and the NEC to an existing indoor Vacuum circuit breaker panel in the new building.

132kV, SF6, Outdoor Circuit Breaker

PARAMETER	CHARACTERISTICS
Maximum service voltage	145kV
Impulse withstand voltage	650kV
Minimum creep age distance	2500mm
Power frequency withstand voltage (1min)	275kV
Fault level (3 sec)	25kA
Rated normal current	630A
Rated frequency	50Hz
Minimum ground clearance	2500mm
Minimum section clearance	3200mm
Minimum phase to phase	2500mm
Minimum phase to ground	1500mm
Number of poles	3
Duty cycle	Auto reclose
Operating mechanism	Motor
Location	Outdoors
Supply voltage for motor, closing- & trip coil	110V DC
Auxiliary contacts	6NO & 6NC
Nominal system voltage	132kV
System insulation level	650kV
Rated short circuit breaking current	31,5kA
Rated short circuit making current	80kA
Number of mechanisms	Only circuit breakers providing a direct mechanical connection between the 3 pole, to ensure simultaneous operation of the 3 pole will be considered

Terminal connections	Flexible aluminium conductor AND/OR Tubular Aluminium busbar.
Operation	.a Electrical tripping and closing at circuit breaker
	.b Remote electrical tripping and closing
	.c Remote electrical tripping and closing by means of the supervisory system, which is to be installed under a separate contract at a later stage.
	.d Emergency manual tripping and closing at circuit breaker

132kV Post Insulators

Nominal system voltage	132kV
Impulse withstand voltage	650kV (Dry)
Fault level	31.5A rms
Type	Solid core or column type
Mechanical strength	Suitable for use with specified flexible aluminium conductors AND/OR Tubular Aluminium Busbars
Busbar clamps	Suitable for use with specified flexible aluminium conductors AND/OR Tubular Aluminium Busbars

132kV Rotating type Isolators for outdoor use.

Number of poles	3
Class	Outdoor
Type	Centre rotate. Full dimensional detail and mounting detail shall be submitted with tenders.
Rated voltage	145kV
Rated minimum normal current	630A
Nominal system voltage	132kV
Rated insulation level	.a to earth and between poles: 650kV .b Across isolating distance: 750kV
Rated frequency	50Hz
Rated short time current	31,5kA for 3 seconds
Rated peak current	63kA
Earth switch rated short time current)	31,5ka for 3 seconds
Earth switches	Earth switches are required on isolators
Operation mechanisms	Motorised operation. (110V, DC)
Auxiliary switches on isolators	As required for operation, control interlocking, indication and protection plus two normally open and two normally closed switches on each isolator for future use.
Auxiliary switch on earth switches	As required for indication

EARTHING

Tenderers shall include for an earth resistivity survey on which they will base their design to lower earth resistance to less than 1 OHM. If the earthing of the earth mat is insufficient then the following standards will be obtained by the contractor:

- The yard earthing system must be designed for 25kA fault level.
- The horizontal earth mat will be manufactured from 10mm diameter black copper rod and the risers will be 50 x 3mm Kweni anti-theft wire.
- The earth mat will maintain the step and touch potential rise in case of short circuit within statutory limits.

PROTECTION AND CONTROL

Part of this contract is the supply of telemetry/SCADA control and all protection necessary for the protection and control of the complete outdoor and indoor circuit breakers and auxiliary equipment. Protection and control panels must have front access, powder coated and fully equipped with relays, transducers, etc.

The most essential protection required on the system is the following:

- Overcurrent and earth fault protection.
- Differential protection on the transformers
- Low impedance Busbar protection.
- Busbar zone protection
- Restricted earth fault transformer protection.
- Buchholz transformer protection.
- Over temperature protection
- Differential feeder protection with supervision.

3.6.13 400/230V SUPPLY FROM AUXILIARY TRANSFORMER

Part of this contract is the installation of 16mm², 4 core + 16mm² bare earth conductor, Cu PVC PILCSWA PVC 1000/600V cable from the New Auxiliary transformer to the substation building for the new DB board.

A powder coated DB board must be supplied and installed with dimensions as follows:

- Height - 1700mm
- Breadth - 500mm
- Width - 1200mm
-

The DB board is to be fitted with a double door.

The DB board is to be equipped with the following:

- An automatic change over relay system to select auxiliary supply from the Auxiliary transformers,
- 80A, 3 phase, 50Hz Busbars + Neutral Busbar,
- x 80A, 10kA triple pole circuit breaker,
- x 80A, Triple pole auto-change over contactors,
- x 60A, 5kA, Triple pole MCB's for TC supplies,
- x 20A, 2.5kA, MCB's for plug outlets,
- x 10A, 2.5kA, MCB's for light circuits,
- x 20A, 5kA, Triple pole for BTU,
- x 20A, 2.5kA, Triple pole MCB's for spare,
- x 20A, 2.5kA, Single pole MCB's for spare,
- 2 x 60A, 2.5kA, Single pole MCB's for spare,
- 1 x 15A, Triple pole contactor for lights,

- Additional allowance for DC control circuits in DB,

3.6.14 STEEL STRUCTURES AND CIVIL WORKS

Detail drawings of typical steel structures and foundations are as per attached drawings. The foundation/concrete slab for the transformer forms part of this contract. Although a drawing is given on the transformer slab the tenderer has to get the final weight of the transformer from the manufacturer so that a final transformer concrete slab can be designed. The tenderer has to make provision therefore for a variation in his unit price in the Bill of Quantities.

The work associated with the preparation of the substation site shall be performed in accordance with the following specifications as a minimum requirement.

- SABS 1200A/AA, General.
- SABS 1200C, Site clearance.
- SABS 1200D/DA/DM, Earthworks.
- SABS 1200LB, Bedding Pipes.
- SABS 1200DB, Trenches.
- SABS 1200DM, Earthworks (road, sub-grade).
- SABS 1200LE, Storm water drainage.
- SABS 1200M/ME/MF/MM/MK, Roads/ Sub. base/ Base.

Concrete plinths for outdoor equipment

- Plinths HDB centres suitable for equipment offered.
- All plinths to finish approximately 150mm above natural ground level.

Soil type for design of bases □

Granular soil tightly packed.

- Load bearing capacity 0,2 MPa
- Ground acceleration 0,3g

Stone Aggregate

- Stone aggregate to be approximately 20mm thick crushed stone, to cover all natural ground surfaces to a layer of 100mm thick.

Concrete Work

- All support structure footings, transformer footings, channels and roadways shall be cast with 20Mpa concrete.
- All footings and the tops of channels shall at least be 150mm above the final ground level.
- In the case of power transformer bases the final height must be determined in co-operation with the supplier of the transformers but it shall in any case not be less than 150mm above the final ground level.
- The dimensions of channels for cables shall be indicated on the drawings. The channels shall be supplied with suitable removable covers which can support the expected load which the covers can be subjected to.
- All concrete shall be suitably reinforced with steel (where necessary) to withstand the maximum loading to which it could be subjected.

- The interlocking road stone roadway must be designed to withstand the maximum load for example a truck fully loaded with a transformer.
- Cement shall be normal Portland cement or when required Quick setting Portland cement in accordance with SABS 471.
- The cement shall be fresh and stored in a dry place. Contaminated or spoilt cement may not be used and must be removed from site.
- Aggregates for concrete shall comply with the requirements of SABS 718.
- Water shall be clean and fresh and free of organic material, acids or other substances harmful to concrete.
- The concrete shall be properly mixed without excessive water and shall be vibrated after placing.
- The Engineer will inspect excavations before the placing of concrete. Concrete shall be cast without interruption. In cases where it is not practical to do so approved jointing methods shall be employed.
- Concrete shall not be cast when the temperature is below four degrees C. Concrete shall be protected against frost or any other weather conditions which may influence the setting and curing of the concrete.
- No loads may be applied to any concrete before it is properly cured.
- Shuttering must be sturdy and properly supported joints in shuttering shall be sealed to prevent seepage of cement from the concrete.

Steel Reinforcing

- All reinforcing steel used in concrete shall comply with SABS 920.
- The steel must be free from oil, paint or loose rust. The steel may not be heated or welded.
- All bending of steel must be done cold. Joints in the steel shall overlap 25 times the diameter of the rod.
- Joints must be spliced with 1,2mm annealed steel wire.
- The reinforcing bars must be bound together and kept in position with 1,6mm soft steel wire.

Foundations

- The Contractor shall erect all foundations required for substation structures. The foundations shall be erected in the ground taking into account the soil conditions as well as the forces that can be applied to the foundations.
- The foundations shall be 20MPa cast concrete reinforced with steel and the foundation bolts shall be cast into the concrete. The plinth for the transformer shall be 30MPa reinforced concrete.
- The tops of all foundations shall be on the same horizontal level.
- The foundations shall have no sharp corner or edges. Corners and edges shall be bevelled at 45 degrees with a width of 50mm.
- Immediately after the structures have been installed and finally aligned all the base plates shall be grouted in using a non-shrink type of grouting, strictly in accordance with the suppliers directions. The grouting shall be finished off where it protrudes beyond the base plates such that a run-off for water is provided.

3.6.15 LABELING

Labeling of equipment will be as per Eskom Standards.

3.6.16 11kV OVERHEAD LINES

A 132kV, ACSR, Wolf (Double) line will be constructed as a separate tender from

- GESKOM Green Side Substation (Emalahleni) to Duva Park Ext 2 Substation (Emalahleni);

The 132kV Overhead Line specifications given here is for information purposes only.

132 & 11 kV overhead line Specifications:

PARAMETER	132kV Voltage	11kV Voltage
Nominal voltage	132kV	11kV
Impulse withstand voltage	650kV	95kV
Minimum creep age distance	2500mm	380mm
Power frequency withstand voltage (1min)	275kV	28kV
Fault level (3 sec)	25kA	25kA
Rated current	630A	1200A
Rated frequency	50Hz	50Hz
Minimum ground clearance	2500mm	2500mm
Minimum section clearance	3200mm	2590mm
Minimum phase to phase	2500mm	230mm
Minimum phase to ground	1500mm	180mm
Maximum line tension/phase	4,5kN	NA
Maximum E/W tension	2,3kN	NA
Design wind pressure	750Pa	750Pa
Location	Outdoors	Indoors
Minimum safety factor	2,5	2,5
Altitude above sea level	3800m	3800m
Ambient temperature	-8 to 40C	-8 to 40C
Pollution	Heavy smog	Heavy smog
Humidity	30 - 82% ave. (10% probability)	30 - 82% ave. (10% probability)

Conductor Properties

	Stranding & wire diameter (mm)	Overall diameter (mm)	Al area (mm ²)	Steel area (mm ²)	Total area (mm ²)	Weight Mass (kg/m)	N/m	UTS (kN)
MAGPIE	3/4/2.118	6.35			24.71	0.1397	1.3705	18.57
SQUIRREL	6/1/2.11	6.33			24.48	0.0852	0.8358	8.02
FOX	6/1/2.79	8.37	36.68	6.11	42.80	0.1490	1.4617	13.10
MINK	6/1/3.66	10.98	63.13	10.52	73.65	0.2570	2.5212	21.90
HARE	6/1/4.72	14.16	104.98	17.50	122.48	0.4270	4.1889	36.00

WOLF	30/7/2.59	18.13	158.06	36.88	194.94	0.7300	7.1613	69.20
CHICADEE	18/1/3.77	18.87	200.93	11.16	212.09	0.6430	6.3078	44.90
LYNX	30/7/2.79	19.53	183.4	42.77	226.20	0.8460	8.2993	79.30
PANTHER	30/7/3.00	21.00	212.06	49.48	261.54	0.9700	9.5157	90.80
PELICAN	18/1/4.21	20.70	242.31	13.46	255.77	0.7750	7.6028	53.80
BEAR	30/7/3.35	23.45	264.42	61.70	326.12	1.2200	11.9682	112.00
GOAT	30/7/3.71	25.97	324.31	75.67	399.98	1.5000	14.7150	136.00
KINGBIRD	18/1/4.78	23.88	323.01	17.95	340.20	1.0280	10.0847	69.80
TERN	45/3.38+7/2.25	27.00	403.77	27.83	431.60	1.3400	13.1454	98.70
ZEBRA	54/7/3.18	28.62	428.88	55.60	484.48	1.6300	15.9903	133.00
BERSFORT	48/4.27+7/3.32	35.58	686.26	61.7	747.96	2.369	23.24	177.65
Steel 19/2.65	19/2.65	13.25		104.8	104.8	0.826	8.1	113
Steel 7/3.35	7/3.35	10.50		61.70	61.70	0.4850	4.7579	67.45
Steel 3/3.35	3/3.35	7.35		26.44	26.44	0.2150	2.1092	29.10

Standard Electrical Clearances

System Nominal Voltage	System Highest Voltage	Min clearance (mm)		Working clearance (m)	
		Phase to Earth	Phase to Phase	Vertical	Horizontal
3.3	3.6	80	110	2.5	1.2
6.6	7.2	150	200	2.6	1.2
11	12	200	270	2.7	1.3
15	17.5	230	310	2.7	1.3
22	24	320	430	2.8	1.4
33	36	430	580	2.9	1.5
44	48	540	730	3	1.6
66	72	770	1050	3.2	1.8
88	100	840	1150	3.3	1.9
132	145	1200	1650	3.7	2.3
220	245	1850	2300	4.3	2.9
275	300	2350	2950	4.8	3.4
330	362	2900	3600	5.4	4
400	420	3200	4000	5.7	4.3

Servitude's and Building Restrictions

kV	Building Restriction From Line Centre	Separation Parallel Lines	Timber Restriction Forestry Area
22 and below	11	12	-
33 (H-pole)	15.5	14	-
66	15.5	14	33
88 (Horizontal)	15.5	21	33.5
88 (Delta)	15.5	15	33.5
132	15.5	25	36
132 (Double)	15.5	32	36

275	23.5	32	38.5
400	23.5	35	38.5
765	40	60	-

Standard Insulation Levels and Creep-age Distances

System Nominal Voltage	System Highest Voltage	BIL at sea level kV	60 sec power Hz withstand Test kV	Creepage dist over external insul		
				Normal mm	Special mm	Extreme mm
3.3	3.6	45	16	70	70	125
6.6	7.2	75	22	140	140	180
<u>11</u>	<u>12</u>	<u>95</u>	<u>28</u>	<u>240</u>	<u>240</u>	<u>300</u>
15	17.5	110	38	350	350	440
22	24	150	50	480	480	600
33	36	200	70	720	720	900
44	48	250	95	960	960	1200
66	72	350	140	1400	1400	1800
88	100	380	150	2000	2000	2500
<u>132</u>	<u>145</u>	<u>550</u>	<u>230</u>	<u>2900</u>	<u>2900</u>	<u>3600</u>
220	245	825	360	3700	4900	6100
275	300	1050	460	4500	6000	7500
330	362	1300	570	5500	7300	9000
400	420	1425	630	6300	8400	10500

Minimum Vertical Clearances of Power Lines at Maximum Sag and Swing

Description	Note				
System Nominal Voltage (kV)	6.6	11	22	33	132
Highest System Voltage (kV)	7.2	12	24	36	145
Minimum Safety Clearances	m	m	m	m	m
Phase to Ground	0.15	0.20	0.32	0.43	1.5
Phase to Phase	0.20	0.30	0.40	0.60	2.5
Minimum Vertical Clearances	m	m	m	m	m
Above ground outside townships	5.0	5.1	5.2	5.3	6.3
Above ground inside townships	5.5	5.5	5.5	5.5	6.3
Above roads in townships	7.5	7.5	7.5	7.5	7.5
Above proclaimed roads outside townships	7.5	7.5	7.5	7.5	7.5
To building, poles and structures not part of the power line	3.0	3.0	3.0	3.0	3.8
To other power lines	0.7	0.8	0.9	1.0	2.0

3.7 APPLICABLE SPECIFICATIONS

ITEM	DESCRIPTION OF SPECIFICATION	SANS/ SABS	IEC	BSS
1.	Circuit Breakers above 1kV	56	5311	
2.	Electrical power, switchgear & associated equipment			162
3.	AC metal enclosed switchgear			5227
4.	Insulation coordination		71	
5.	Isolators and earthing switches		129	5253
6.	Bushings for alternating voltages above 1kV		137	
7.	Guide to the Testing of Circuit Breakers with respect to Out of Phase Switching		267	
8.	Post insulators		273	
9.	Specification and acceptance on Sulphur Hexa Fluoride (SF6)		376	
10.	Surge diverters		99-1	
11.	Marking and arrangement of switchgear, busbars, main connections and small wiring			158
12.	Busbars and busbar connections	784		159
13.	Current Transformers		185	3938
14.	Voltage transformers		186	3941
15.	Power transformers			171
16.	Distribution transformers	780	76	
17.	Pole mounted transformer	1029&1030		
18.	11kV Cables	97		
19.	PVC insulated cables	150		
20.	Integrating motors			37
21.	Motors	948		2613 / 170
ITEM	DESCRIPTION OF SPECIFICATION	SABS	IEC	BSS
22.	Small motor starters			587
23.	Contactors	1092	158-1	775
24.	Cartridge fuses up to 600V			88
25.	HRC fuses	172&173		2692
26.	Electrical indicating instruments		51	89
27.	Electrical protective relays			142
28.	Bushings	833&1035		
29.	Insulating oil for transformers & switchgear	555	148	

30.	Cable sealing boxes			2562
31.	Colours	1091		381C
32.	Moulded case circuit breakers	156		
33.	Structural steel sections	222		4
34.	The use of structural steel in Buildings			449
35.	Weldable structural steel			4360
36.	Isometric black hexagon & square bolts, screws, nuts	135		
37.	Hot-dip galvanized coatings on iron and steel	763		729
38.	Phosphate treatment of iron & steel			3189
39.	Electroplated coatings of tin			1872
40.	Mild steel rivets	435		
41.	Insulators for lines	161& 177		137
42.	Insulator and conductor fittings	178		3288
43.	General purpose galvanized steel wire			183
44.	Aluminium conductors, steel reinforced, for overhead power transmission lines	182		215
45.	Low voltage air break switches	152		
46.	Low Voltage lightning arrestors	171		
47.	Flameproof enclosures for electrical apparatus	314		
48.	Wooden Poles	753& 754		
49.	Painting	630		
50.	Undercoat painting	681		
51.	Zinc chromate primer	679		
52.	Specification for Grey iron coatings			1452
53.	Metric dimensions			3979
54.	General requirements for rotating electrical machines			4999
55.	Recommendations for the classification of materials for the insulation of electrical machinery & apparatus in relation to their thermal stability in service		85	
56.	Capacitors		70	1650
57.	Specification for large power transformers	NEMA	TRI	
58.	Aerial Bundled Conductor Systems	1418		

3.8 CLASSIFICATION FOR EXCAVATION PURPOSES

The Contractor will use manual labour as far as possible 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. The classification will be based on inspection of the material to be excavated and on the criteria given below. The Engineer's decision shall, subject to the relevant provisions of the contract, be final and binding.

The excavation of material will be classified as follows for purposes of measurement and payment:

Soft excavation - Soft excavation shall be excavation in material that can be efficiently removed by a backacting excavator of flywheel power approximately 0,10kW per millimeter of tined-bucket width, without the assistance of pneumatic tools such as paving breakers, or that can be efficiently loaded, without prior ripping or stockpiling, by a rubber tyre type front-end loader of mass approximately 15 t and flywheel power approximately 100kW.

Intermediate excavation - Intermediate excavation shall be excavation in material that requires a back-acting excavator of flywheel power exceeding 0,10kW per millimeter of tined-bucket width or the use of pneumatic tools before removal by loading equipment equivalent to that specified in "Soft excavation" above.

Hard rock excavation - Hard rock excavation shall be excavation in material that cannot be efficiently removed without blasting or without wedging and splitting before removal.

The tenderer must give a unit rate in the Bill of quantities for excavations of trenches and pole excavations as if a classification of Intermediate excavation is applicable.

3.9 LAWS AND REGULATIONS

The Contractor will be responsible to ensure that the Contract Works comply in full with the requirements laid out in the latest edition of the following:

- a. The Occupational health and Safety Act, Act 85 of 1993.
- b. The Code of Practice for Overhead Power Lines for Conditions.
- c. The Code of Practice for Wiring of Premises (SABS 0142).
- d. Relevant regulations of the Emalahleni local Municipality.
- e. The relevant NRS specifications.

3.10 DRAWINGS

The Contractor shall conform to the drawings and specifications and to any orders in writing which the Engineer DULY supply during the progress of the Works. Should any difference or discrepancy exist between the drawings and the specifications or should there be any difference or discrepancy in the figures or in the scales or in quantities, or the descriptions or the dimensions or between any of them or in any other respect whatsoever, it shall be the duty of the Contractor to seek in writing the decision of the Engineer on the true intent and meaning of the contract, the Engineer's decision shall be final and binding.

3.11 CONTRACTOR TO INFORM AND SATISFY HIMSELF FULLY AS TO ALL CONDITIONS AFFECTING THE CONTRACT PRICE

The Contractor shall be deemed to have satisfied himself as to all the conditions and circumstances affecting the Contract Price, as to the possibility of executing the Contract works as shown and described in the contract and as to the general circumstances of the site of the Contract Works; and to confirm his price, according to his own view of these, as no additional allowances except as otherwise herein expressly provided for, will afterwards be made beyond the Contract Price.

3.12 NOTICES

All instructions, directions and notices from the Employer to the Contractor, and all notices from the Contractor to the Employer for the purposes of the Contract shall be conveyed in writing, and shall be deemed to have been duly served at the time when the letter containing the same would be delivered in the

ordinary course of the post and in proving such service it shall be sufficient to prove that the letter was properly addressed and posted.

3.13 SITE MEETINGS

A senior member of the Contractor's organization will be required to attend site meetings throughout the continuance of the contract. It is estimated that site meetings shall be held at two weekly intervals. The tenderer shall allow for attendance at these meetings in his tender, however, no guarantee can be given as to the exact number or intervals between each of these site meetings. No extras to the contract will be allowed and any additional site meeting required, or called for is at the absolute discretion of the Engineer.

3.14 NOTICE BY CONTRACTOR OF WORK BEING COVERED OR BUILT-IN

The Contractor shall give notice to the Engineer at least one week before the date on which he will be ready for the inspection of any work that is to be covered over or built in as part of the works and which would not be accessible for inspection after being so covered or built in. The Contractor shall not proceed with the covering or building in of such work without the prior approval of the Engineer.

3.15 PROJECT STEERING COMMITTEE

A Project Steering Committee will be constituted by the ward councillor and selected members from his ward committee. The ward councillor will appoint a community liaison officer (CLO). The CLO will assist the engineer and contractor with all liaison required with the community and labour force.

3.16 MANDATORY SUBCONTRACT WORK

A sub-contracting and Labour Intensive Construction (LIC) Method of up to Thirty percent (30%), where it is possible or the percentage or amount as stipulated on the bid document, is mandatory on this bid to the local community service provider/s where the construction works will be undertaken. The process of identifying and appointing of the sub-contractor(s) must be competitive, transparent, fair and equitable.

It remains the contractor's responsibility to enter into agreement with these subcontractor/s, to negotiate payment, guarantees and percentage and duration of the retention kept, strictly in accordance with the CIDB regulations. No direct payments to, or sessions in favour of subcontractors will be entertained. It stays the responsibility of the main contractor.

3.17 INSTALLATION SPECIFICATION

- CONSTRUCTION CONTRACTOR shall peg and create drawings for the 132/22KV line connecting from existing ESKOM MV Substation to the new Duvha Ext 2 Bulk Substation.. The drawings shall be signed off by Emalahleni Local Municipality.
- CONSTRUCTION CONTRACTOR shall excavate, plant dressed 11m wooden poles, stays and all associated accessories for 22KV over-head line construction.
- CONSTRUCTION CONTRACTOR shall excavate, plant dressed 24m concrete structures, stays and all associated accessories for 132KV over-head line construction.
- CONSTRUCTION CONTRACTOR shall construct 40MVA Bulk Substation complete and commission it.
- CONSTRUCTION CONTRACTOR shall supply and install TWO (2) new 20MVA, 12/11kV Cu/Cu floor mounted transformer complete with all accessories. The location of the transformers shall be as per the project drawings created by the PROJECT ENGINEER and approved by Emalahleni Local Municipality. The CONSTRUCTION CONTRACTOR shall test and commission the transformers.
- CONSTRUCTION CONTRACTOR shall string with Chicadee Aluminium Conductor Steel Reinforced (ACSR). for the 132kV Bulk line and Wolf Aluminium Conductor Steel Reinforced (ACSR) for the 22kV Line. CONSTRUCTION CONTRACTOR shall ensure that the tensioning of the conductor is in such a way that overhead cable is at least seven (7) meters above ground at the lowest point.
- CONSTRUCTION CONTRACTOR shall terminate all relevant cables / overhead conductor and connect all cables to switchgear in the substation.

- The CONSTRUCTION CONTRACTOR shall keep A quality control document. This quality control document shall form part of the Safety File.
- CONSTRUCTION CONTRACTOR shall supply and install LV and MV earthing system at the transformer. CONSTRUCTION CONTRACTOR shall test and commission the earthing system. If the earthing system does not achieve a resistance less than 20 ohms, CONSTRUCTION CONTRACTOR shall notify the PROJECT ENGINEER and Emalahleni Municipality representative for further action.
- CONSTRUCTION CONTRACTOR shall supply and install anti-climb devices at all equipment locations (HV Poles, H-poles and MV cable termination).
- CONSTRUCTION CONTRACTOR shall supply and install pole danger warning signs at equipment locations (Substation and MV cable termination).
- CONSTRUCTION CONTRACTOR shall supply and install pole numbers, transformer numbers and main enclosure number. The schedule of pole numbering will be submitted to the CONSTRUCTION CONTRACTOR before pre- commissioning. All labelling shall be permanent and legible.
- CONSTRUCTION CONTRACTOR shall supply and install feeder cable from transformer to substation switchgear and vice versa. CONSTRUCTION CONTRACTOR shall test and commission all cables, switchgear, auto recloser and transformer.

3.18 22kV OVERHEAD LINE INSTALLATION SPECIFICATION

- The conductor configuration shall be staggered vertical with 545mm spacing between the phases.
- All MV and LV poles shall be wooden and shall be 11m long and shall have minimum 180mm diameter top. The planting depth for the poles shall be 1.8m. Whenever the contractor encounters soil conditions which lower bearing capacity, cement shall be used in a mix of 1:0 cement to soil ratio to stabilize the poles. All the backfill shall be rammed and compacted at 30mm layer. All stayed poles supporting transformers shall have a base plate installed.
- 22kV surge arrestors, neutral surge arrestor, transformer neutral, transformer tank shall be bounded and earthed. The down conductor shall be saddled to one the poles on the H-pole and separate from LV system down conductor. LV equipment (main enclosure and ABC neutral) shall be bonded separately and provided with a separate down conductor and earth electrode. The MV and LV electrode shall be kept at least 5m apart. The footing resistance shall be less than 20 ohms.
- MV equipment anti-climb barbed wire shall be installed
- Mid span joints on the ACSR overhead conductor are not encouraged. In case of a mid-span joint is necessary because the full length of the ACSR conductor has run out, the mid span joint shall be in an approved procedure.
- All poles LV and MV shall be 11m length with minimum 180mm top diameter.
- All strut poles shall be 12m.
- MV stay wire shall be 7/4.00.
- Earth rod shall be 16mm diameter, 1 411mm long copper clad steel.
-

3.18.1 MATERIAL SPECIFICATION

MV overhead conductor shall be Wolf, Aluminum Conductor Steel Reinforced (ACSR).

24kV LIGHTNING ARRESTOR SPECIFICATION

Technical Data:

Rated Voltage (Ur)	5 to 56 kV rms
Nominal Discharge Current (In)	10 kA with 8/20 waveshape
Line Discharge Class	1
High Current Impulse Withstand	100 kA with 4/10 waveshape
Long Duration Current Impulse Withstand	300 A with 2000 μ s waveshape

Energy Absorption Capability (with 4/10 wave shape)	4.8 kJ/kV of U _c
Maximum Permissible Static Service Load	10 daN.m
Short Circuit Current Withstand	20 A / 0.2s - 600 A / 1s

3.19 CONSTRUCTION

3.19.1 Work Specifications

Although not bound in nor issued with this document, the following standardised specifications will form part of the contract document: SABS/SANS 1200.

3.19.2 Plant and materials

All materials shall comply with the requirements of the South African Bureau of Standards and shall bear the official standardization mark. Where SABS standard does not exist for a certain material, or a material does not bear the official standardization mark, the Engineers approval of such material must be gained before use thereof.

3.19.3 Construction Equipment

All equipment on site shall be in a good working order and is to be in such a condition that it can achieve production rates which are typical of the industry standards.

Should any equipment, in the opinion of the Engineer, be substandard or breaks down frequently to such an extent that it affects the progress on the project, the Engineer may instruct the Contractor to replace such equipment.

3.19.4 Existing Services

The services existing on the site will be either shown on the drawings or pointed out on site by the Engineer and / or the Municipality. No excavation work will commence unless a representative of the Municipality and/or the Engineer have been requested to point out existing services in the area under construction. Written confirmation of services that have been pointed out by the Municipality is to be obtained by the Contractor.

All existing services on the site may not be shown on the drawings or be visible on the site. The Engineer may order excavation by hand in order to search for and expose services. An item has been included in the Schedule of Quantities to cover the cost of such work if so ordered by the Engineer. Where a service is damaged because of the Contractors negligence he shall be liable for the cost involved in the repair of the services and any other consequent cost that may arise due to the interruption of the damaged services.

No excavation is to take place until a representative from the Municipality has been contacted and he has pointed out the existing services to the Contractor and confirmed it in writing. The same shall apply to all Telkom services in the area.

3.19.5 Site Establishment

▪ Source of Water Supply

Water is available from the existing water network. The Contractor is to arrange with the Local Authority for a connection point. The Contractor will be responsible for the costs of the connection as well as the use of water for construction purposes. The Contractor's attention is drawn to the fact that the potable water supply is erratic in this area. Under no circumstances may potable water be used for construction, unless written permission is granted by the Engineer.

▪ **Sources of power supply**

Electricity is available from the existing network. The Contractor is to arrange with the Local Authority for a connection. The Contractor will be responsible for the costs of electricity consumed as well as the connection costs.

▪ **Location of camp and depot**

The Contractor's camp is to be located on a site acceptable to EMALAHLENI Local Municipality. Written approval needs to be obtained from EMALAHLENI Local Municipality. No workers will be permitted to live in this camp.

▪ **Sanitary facilities**

The Contractor is to provide the necessary sanitary facilities at his camp, all of which will be governed by the requirements of the Local Authority. The contractor shall pay all sanitary fees and charges due.

It is not required that specific sanitary facilities be provided for the Engineer, and the facilities for the Contractor will be shared by both parties. The facilities are, however, to be kept in a clean and hygienic condition, to the satisfaction of the Engineer. All sanitary facilities are to conform to the by-laws of the Local Authority.

▪ **Temporary offices**

The Contractor is not required to provide any specific office space for the Engineers, but the Contractors' offices shall have adequate space and facilities for the holding of site meetings, and for the Engineer to perform administrative functions on an ad hoc basis.

Neither housing nor shelters will be provided for the contractor's employees, and the Contractor shall make his own arrangements to house his employees and transport them to the Site.

▪ **Name Boards**

One name board shall be provided at the position as ordered by the Engineer. The Engineer will provide the lettering required once the tender is awarded.

▪ **Survey assistant and equipment**

The Contractor will not be required to make any survey equipment available specifically for the use of the Engineer. The Contractor will however make 2 survey assistants available to the Engineer as and when required, as well as the theodolite and/or level plus accessories

3.20 Site Usage

▪ **Ground and access to the works**

The Contractor shall where necessary on or adjacent to roads which carry traffic, provide all the necessary barricades and signs in accordance with the stipulations of the South African Road Traffic Signs Manual, and in strict accordance with the requirements of the Protective Services of the Local Municipality.

The Contractor shall further ensure that all public roads that are used for access to the site are kept free of debris at all times. The Contractor shall also take adequate measures to ensure that dust is kept to an acceptable level. The term acceptable is to be deemed as acceptable to the Engineer.

▪ **Care, damage and protection**

The Contractor shall at his own cost make full provision for all watching and lighting necessary for the protection of all persons, animals, vehicles, etc., from injury by reason of the Works. He shall provide ample warning signs, guard rails, etc., around open excavations, stacks of materials, excavated material, debris or the like, and he shall be held liable for all claims made upon himself or upon the Employer by reason of his neglect of all such precautions and provisions.

During the periods of construction of the Works and the repair of defects, the Contractor shall, at his own cost, to the satisfaction of the Engineer and the relevant Authority, take sufficient and adequate measures to avoid interrupting the use of all roads, footpaths, water courses, drains, pipes, telephones, electric wires and cables, premises, places and works, public or private, which may in any way be interfered with by the operations; and shall also afterwards permanently restore all structures and everything which may have been temporarily displaced or otherwise interfered with, all to the satisfaction of the Engineer and the relevant Authority, without extra charge beyond the Contract price.

▪ **Survey beacons**

The Contractor shall take care to safeguard any permanent survey beacons such as erf boundary pegs and reference beacons. Should the Contractor disturb any such pegs and beacons, he shall have them replaced at his own cost by a registered Land Surveyor. The Contractor is to provide the Engineer with written confirmation from the Land Surveyor that he has replaced the relevant beacons.

The Contractor's attention is drawn to article 35(i) of the Land Surveying Act No. 9 of 1927 (as amended) in this regard.

▪ **Access to individual erven**

Access to all public and private property must be maintained at all times. Where trenches cross the access point to any property, the Contractor is to arrange for adequate and safe vehicular and pedestrian crossings over the trenches.

The Engineer must approve the method of providing access before any excavation commences.

3.21 Permits and Way leaves

To be arranged with the relevant authorities.

3.22 Management of the Works

▪ **Setting out of the works**

Generally, the positions of the works have been fixed on the plans according to the existing stand boundaries. The Engineer is to approve all setting out prior to commencement of excavation.

▪ **Excavation of works & safety**

The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who is been appointed in writing. The Contractor will evaluate, as far as is reasonably practicable, the stability of the ground before excavation works begin and he/she shall not permit any person to work in an excavation which has not been adequately shored or braced.

The Contractor will cause convenient and safe means of access to every excavation area in which person are required to work and such access hall not be further than 6m from the point where any worker within the excavation is working.

The Contractor must ascertain as far as is reasonably practicable the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed, and shall before the commencement of excavation work that may affect any such service, take the steps that may be necessary to render the circumstances safe for all persons involved;

The Principal Contractor shall cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be:

- (i) Adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and
- (ii) provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor;

The Principal Contractor shall cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

▪ **Inspection by Engineer**

No stage of construction shall be proceeded with until the Engineer or his representative has examined and approved the previous stage. If any work is covered or hidden from view before the Engineer has inspected same, the Contractor shall at his own cost open the covered work for inspection. The Contractor shall also be responsible for making good any work damaged by such uncovering.

▪ **Employment of local labour**

It is a specific criterion of this project that should as far as possible adhere to RDP principles, and to meet these principles the following procedures will be followed:

All labour is to be sourced from the EMALAHLENI Local Municipal area of jurisdiction and the Contractor may only bring in key personnel from outside this area. The Contractor's attention is drawn to the standard rates specification (*Civil Engineering Industry Minimum Wage rates per hour; as per Government Notice R1202, 16 October 2015.*) found on the

SAFSEC website at www.safcec.org.za. These standard rates should be implemented for payment of all employees of the Contractor.

Key personnel would typically include the Contracts Manager, Site Agent, and Supervisor for each discipline and operators of plant where the operator must be seated.

A Monthly labour report on all local labour i.e. payments and labour days should be submitted to the Engineer at the end of each month in order for the Engineer to submit a report to the Employer.

None of the Works shall be executed except between sunrise and sunset on Monday to Saturday, inclusive, of any week, and none of the Works shall be executed on any special non-working days stated in the Contract Data, unless:

- ✓ The Engineer's permission in writing is obtained, subject to such conditions as may be laid down by the Engineer; or
- ✓ Provision is specifically made for it in the Contract; or
- ✓ Work is unavoidable or necessary for the saving of life or property or for the safety of the Works.

▪ **Daily Records**

Daily records of resources (equipment and people employed) must be kept and must be available on site at all times. These records will include i.e. site instruction book, site diary, site visit register, contractual documentation and minutes of all project meetings. Labour information should be kept updated at all times.

▪ **Compliance with applicable laws**

The Contractor shall, in performance of the Contract, comply with all applicable laws, regulations and statutory provisions and agreements, and shall in particular, on the request of the Engineer, provide proof that he has complied therewith with regard to amongst others:

- ✓ Wages and conditions of work; and
- ✓ Safety

▪ **Payment Certificates**

As consideration for the construction, completion and defects correction of the Works, the Employer shall pay the Contractor in terms of the provisions of the Contract.

■ **Clearance of site**

On completion of the Works, the Contractor shall clear away and remove from the site all Construction Equipment, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a safe condition. All streams and watercourses (where applicable) shall be cleaned and restored to the condition as at the commencement of the Works. If the Contractor does not, within a reasonable time, comply with this requirement, the Employer may have the site cleared and recover the cost thereof from the Contractor.

ANNEXES:

Annexure A: BILL OF QUANTITIES

Annexure B: DUVHA PARK EXT 2 BULK SUBSTATION SITE MAP

Annexure C: DUVHA PARK ET 2 132kV LINE ROUTE

Annexure D: DUVHA PARK EXT 2, 22kV LINE ROUTE

Annexure E: PRACTICE NOTE: Workplace Readiness

Annexure F: EPWP, DMRE Schedule of EPWP, SMME, SWO and BEE

Annexure G: 132kV Structures

Annexure H: 22kV Structures

Annexure I: Substation Yard

Annexure J: Government Procurement – General Condition of Contract.

All definitions, interpretations and general provisions for the General Conditions of Contract for Construction Work (2015) (3rd edition) are applicable.

3.1. *GENERAL INFORMATION*

3.2. *SITE*

3.3. *SITE CONDITIONS*

3.4. *CONSTRUCTION PROGRAM*

3.5. *SERVICE CONDITIONS*

3.6. *PROJECT DESCRIPTION*

3.7. *LAWS AND REGULATIONS*

3.8. *DRAWINGS*

3.9. *CONTRACTOR TO INFORM AND SATISFY HIMSELF FULLY AS TO ALL CONDITIONS AFFECTING
THE CONTRACT PRICE*

3.10. *NOTICES*

3.11. *DRAWINGS, SAMPLES AND PATTERNS*

3.12. *SITE MEETINGS*

3.13. *NOTICE BY CONTRACTOR OF WORK BEING COVERED OR BUILT-IN*

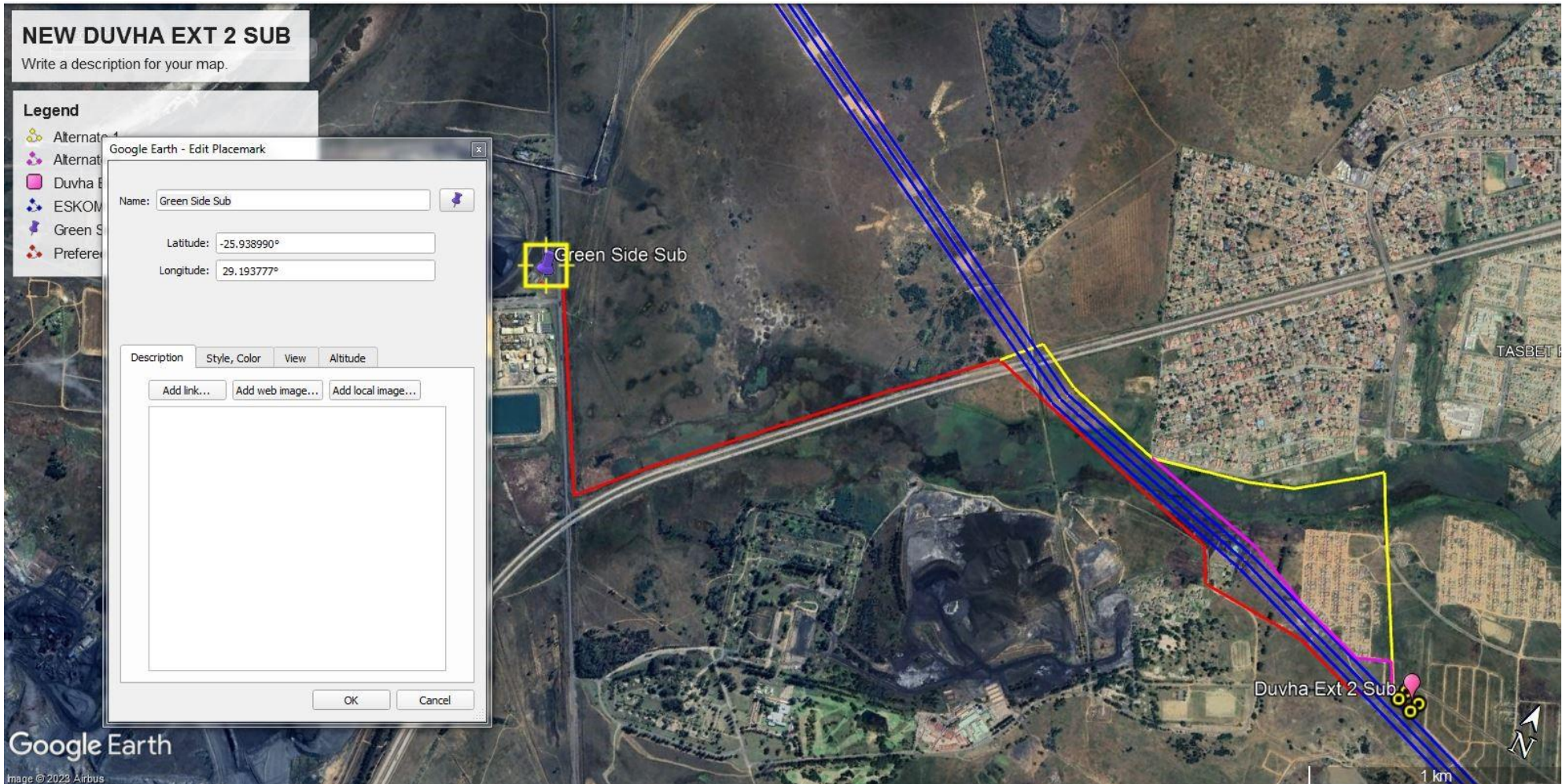
3.14. *APPLICABLE SPECIFICATIONS*

**APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL
SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5**

BID No.: EML 47/2023

PART C4: DRAWINGS

ANNEXURE B: ESKOM GREENSIDE SUBSTATION. -25.938990°, 29.19777°



ANNEXURE C: 132kV LINE ROUTE



EMALAHLENI LOCAL MUNICIPALITY



TENDER NO: EML 47/2023

PANEL OF CONTRACTORS FOR CONSTRUCTION, SUPPLY AND MAINTENANCE OF STORMWATER DRAINAGE ON “AS AND WHEN BASIS” FOR A PERIOD OF 36 MONTHS IN EMALAHLENI LOCAL MUNICIPALITY

RELEVANT DOCUMENTATION

C5

The following documents are attached hereto and form part of the Contract:

- Annexure A - Health and Safety Specifications
- Annexure B - Pro-forma agreement in terms of Occupational Health and Safety Act
- Annexure C - Notification of construction work
- Annexure D - Pro-forma contract between contractor and worker
- Annexure E - Pro-forma attendance register
- Annexure F - Contract person days calculation format
- Annexure G - Contractor's monthly report format
- Annexure H – Environmental management plan
- Annexure I – Geotechnical Investigation Report
- Annexure J – Tender Drawings

ANNEXURE A

HEALTH AND SAFETY SPECIFICATIONS

1. OH&S MANAGEMENT

Structure and Organization of OH&S Responsibilities

1.1.1. Overall Supervision and Responsibility for OH&S

The Client is to ensure that the Principal Contractor, appointed in terms of Construction Regulation 4(1) (c), implements and maintains the agreed and approved OH&S Plan.

The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the Act is to ensure that the Employer (as defined in the Act) complies with the Act. Annexure 2 - "Legal Compliance Audit" may be used for this purpose.

Any OH&S Act (85 /1993), Section 16 (2) appointee/s as detailed in his/her respective appointment forms.

The Construction Supervisor and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 6.

Further (Specific) Supervision Responsibilities for OH&S

Appointments required by the Act and Regulations:

- OH&S Representatives (Sections 17/18 of the Act)
- OH&S Committees (Sections 19/20 of the Act)
- Risk Assessor (Construction Regulation. 7(1))
- Accident/Incident Investigations Co-coordinator (General Administrative Regulation 9 (2))
- Form/Support work Supervisor (Construction Regulation 10(a))
- Batch Plant Supervisor (Construction Regulation 18(1))
- Stacking & Storage Supervisor (Construction Regulation 26(a))
- Fire Equipment Inspector (Construction Regulation 27(h))
- Electrical Installations, Machinery & Appliances Inspector (Construction Regulation 22)
- Excavations Supervisor (Construction Regulation 11(1))
- Demolition Supervisor (Construction Regulation 12(1))
- OH & S Officer (where necessary) (Construction Regulation 6(6))
- Person Responsible for Machinery (General Machinery Regulation 2)
- Emergency, Security and Fire Co-coordinator (Construction Regulation 27(h) & Environmental Regulation 9)
- Fire Equipment Inspector (Construction Regulation 27(h) Environmental Regulation 9)
- First Aider (General Safety Regulation 3(2))
- Hazardous Chemical Substances Supervisor (HCS Regulations)
- Ladders Inspector (General Safety Regulation 13A)
- Lifting Equipment Inspector (Construction Regulation 20)
- Operators & Drivers of Construction Plant & Vehicles (Construction Regulation 21 (i))
- Structures Supervisor (Construction Regulation 9)
- Users Operators of Construction Equipment (Construction Regulation 21(i))
- Welding Supervisor (General Safety Regulation 9)
- Communication and Liaison

OH&S liaison between the Client, the Principal Contractor, the other Contractors, the Consulting Engineer and other concerned parties will be through the OH&S Committee as in 3.10.

In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their Supervisors, OH&S Representatives, the OH&S Committee and their elected Trade Union Representatives, if any.

The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and the Consulting Engineer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

1.3. OH & S File

The Principal Contractor must, in terms of Construction Regulation 5 (7), keep a health and safety file on site at all times that must include all documentation required in terms of the Act and Regulations and must also include a list of all Contractors on site that are accountable to the Principal Contractor and the agreements between the parties and details of work being done.

The following documents must be kept in the OH & S file:

- 1) Notification of Construction Work (Construction Regulation 3.)
- 2) Copy of OH&S Act (updated) (General Administrative Regulation 4.)
- 3) Proof of Registration and good standing with a COID Insurer (Construction Regulation 4 (g))
- 4) Copy of health and safety plan (construction regulation 5 (1))
- 5) OH&S Programme agreed with Client including the underpinning Risk Assessment and Method Statements (Construction regulation 5 (1))
- 6) Designs/drawings (Construction Regulation 5 (8))
- 7) A list of Contractors (Subcontractors) including copies of the agreements between the parties and the type of work being done by each contractor (Construction Regulation 9) 8) Appointment / Designation forms as per 3.1.1. and 3.1.2. above.

Registers as follows:

- Accident/Incident Register (Annexure 1 of the General Administrative Regulations)
- OH & S Representatives Inspection Register
- Form/Support work Inspection
- Excavations Inspection
- Lifting Equipment
- Demolition Inspections
- Designer's Inspection of Structures Record
- Batch Plant Inspections
- Arc & Gas Welding & Flame Cutting Equipment Inspections
- Construction Vehicles & Mobile Plant Inspections
- Electrical Installation and Machinery Inspections
- Fire Equipment Inspection & Maintenance
- First Aid
- Hazardous Chemical Substances
- Lifting Tackle and Equipment Inspections
- Inspection of Cranes
- Inspection of Ladders
- Inspection of Vessels under Pressure
- Machinery Inspections
- Drivers/Operators of Mobile Plant/Construction Vehicles Daily Inspections

The Principal Contractor will be required to submit the abovementioned registers monthly to the chairperson of the OH&S Committee for endorsement.

The Health & Safety File must be handed over to the Client on completion of the contract. It must contain all the documentation handed to the Principal Contractor by any subcontractors together with a record of all drawings, designs, materials used and other similar information concerning the completed project.

1.4. OH & S Goals and Objectives and Arrangements for Monitoring and Review of OH&S Performance

The Principal Contractor is required to maintain a Compensation Incidence Frequency Rate (CIFR) of at least 8 (Refer Annexure 3 - "Measuring Injury Experience") and to report on this to the Client on a monthly basis. Identification of Hazards and Development of Risk Assessments, Standard Working Procedures (SWP) and Method Statements

The Principal Contractor is required to develop Risk Assessments, Standard Working Procedures (SWP) and Method Statements for each activity executed in the contract or project (Refer to Section 4. below "Project/Site Specific Requirements")

Arrangements for Monitoring and Review

Monthly Audit by Client

The Client will be conducting a Monthly Audit to comply with Construction Regulation 4 (1) (d) to ensure that the Principal Contractor has implemented and is maintaining the agreed and approved OH&S Plan.

Other Audits and Inspections by Client

The Client reserves the right to conduct other ad hoc audits and inspections as deemed necessary.

A representative of the Principal Contractor must accompany the Client on all Audits and Inspections and may conduct his/her own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results.

1.6.3 Reports

The Principal Contractor is required to provide the Client with a monthly report in the format as per the attached Annexure 4: "SHE Risk Management Report"

The Principal Contractor must report all incidents where an employee is injured on duty to the extent that he/she:

- dies
- becomes unconscious
- loses a limb or part of a limb

is injured or becomes ill to such a degree that he/she is likely either to die, or to suffer a permanent physical defect, or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed **or where:**

- a major incident occurred
- the health or safety of any person was endangered
- where a dangerous substance was spilled
- the uncontrolled release of any substance under pressure took place
- machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- machinery ran out of control

To the Provincial Director of the Department of Labour within seven days. (Section 24 of the General Administrative Regulation 8.). The Principal Contractor is required to provide the Client with copies of all statutory reports required in terms of the Act.

The Principal Contractor is required to provide the Client with copies of all internal and external accident/incident investigation reports including the reports contemplated in 3.9. below.

1.6.4 Review

The Principal Contractor is to review the Hazard Identification, Risk Assessments and SWP's at each two weekly site inspection/meeting as the construction work develops and progresses and each time that changes are made to the designs, plans and construction methods and processes.

The Principal Contractor must provide the Client, other Contractors and all other concerned parties with copies of any changes, alterations or amendments.

Site Rules and Other Restrictions

Site OH&S Rules

The Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the OH&S aspects of the construction.

1.7.2. Security and Emergency Arrangements

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period.

Access control must include the rule that non-employees will not be allowed on site unaccompanied.

The Principal Contractor must develop a set of security rules and procedures and maintain these throughout the construction period.

The Principal Contractor must appoint a competent Emergency Controller who must develop emergency contingency plans for any emergency that may arise on site as indicated by the risk assessments. These must include a monthly practice/testing programme for the plans e.g. January: trench collapse, February: flooding etc. and practiced/tested with all persons on site at the time, participating.

1.8 Training

The contents and syllabi of all training required by the Act and Regulations must be included in the Principal Contractor's OH&S Plan.

General Induction Training

All employees of the Principal and other Contractors to be in possession of proof of General Induction Training

Site Specific Induction Training

All employees of the Principal and other Contractors to be in possession of Site Specific OH&S Induction Training.

Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment to be in possession of valid proof of training.

All employees in jobs requiring training in terms of the Act and Regulations to be in possession of valid proof of training.

OH&S TRAINING REQUIREMENTS: (AS REQUIRED BY THE CONSTRUCTION REGULATIONS AND AS INDICATED BY THE OH&S SPECIFICATION AND THE RISK ASSESSMENT/S):

- General Induction (Section 8 of the Act)

- Site/Job Specific Induction (also visitors) (Sections 8 & 9 of the Act)
- Site/Project Manager
- Construction Supervisor
- OH&S Representatives (Section 18 (3) of the Act)
- Training of the Appointees indicated in 3.1.1. & 3.1.2. above
- Operation of Cranes (Driven Machinery Regulations 18 (11))
- Operators and Drivers of Construction Vehicles & Mobile Plant (Construction Regulation 21)
- Basic Fire Prevention & Protection (Environmental Regulations 9 and Construction regulation 27)
- Basic First Aid (General Safety Regulations 3)
- Storekeeping Methods & Safe Stacking (Construction Regulation 26)
- Emergency, Security and Fire Co-coordinator

1.9. Accident and Incident Investigation

The Principal Contractor is responsible for the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she had to be referred for medical treatment by a doctor, hospital or clinic. (General Administrative Regulation 9).

The results of the investigation to be entered into the Accident/Incident Register. (General Administrative Regulation 9)

The Principal Contractor is responsible for the investigation of all non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Principal Contractor is responsible for the investigation of all road traffic accidents and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

OH & S Representatives and Committees

Designation of OH&S Representatives

Where the Principal Contractor employs more than 20 persons (including the employees of other contractors (sub-contractors) he has to appoint one OH&S Representative for every 50 employees or part thereof. General Administrative Regulation 6 requires that the appointment or election and subsequent designation of the OH&S Representative is executed in consultation with Employee Representatives or Employees. (Section 17 of the Act and General Administrative Regulation 6. & 7.)

OH & S Representatives have to be designated in writing and the designation must include the area of responsibility of the person and term of the designation.

Duties and Functions of the OH&S Representatives

The Principal Contractor must ensure that the designated OH&S Representatives conduct a minimum monthly inspection of their respective areas of responsibility using a checklist and report thereon to the Principal Contractor.

OH & S representatives must be included in accident/incident investigations.

OH & S representatives must attend all OH&S committee meetings.

1.10.3. Appointment of OH&S Committee

The Principal Contractor must establish an OH & S Committee consisting of all the designated OH&S Representatives together with a number of management representatives (this number is not to exceed the number of OH&S representatives on the committee) and a representative of the Client who shall act as the chairperson without a vote. The members of the OH&S committee must be appointed in writing.

THE OH&S COMMITTEE MUST MEET MINIMUM MONTHLY AND CONSIDER, AT LEAST, THE FOLLOWING AGENDA:

- 1) Opening and welcome

- 2) Present/Apologies/Absent
- 3) Minutes of previous meeting
- 4) Matters arising from the previous minutes
- 5) OH&S Representatives Reports
- 6) Incident Reports & Investigations
- 7) Incident /Injury statistics
- 8) Other matters
- 9) Endorsement of Registers and the statutory documents by a representative of the Principal Contractor
- 10) Close/Next Meeting

PROJECT / SITE SPECIFIC REQUIREMENTS

The following is a list of specific activities and considerations that have been identified for the project and the construction site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor: Clearing & Grubbing of the Area/Site

SITE ESTABLISHMENT INCLUDING:

- Office/s
- Secure/safe storage for materials, plant & equipment
- Ablutions
- Sheltered eating area
- Maintenance workshop
- Vehicle access to the site
- Dealing with existing structures (NB: the existing pipeline is also a structure.)
- Location of existing services
- Installation and maintenance of temporary construction electrical supply, lighting and equipment
- Adjacent land uses/surrounding property exposures
- Boundary and access control/Public Liability Exposures (NB: The Employer is also responsible for the OH&S of non-employees affected by his/her work activities.)

HEALTH RISKS ARISING FROM NEIGHBOURING AS WELL AS OWN ACTIVITIES AND FROM THE ENVIRONMENT E.G. THREATS BY DOGS, BEES, SNAKES, LIGHTNING ETC.

- Exposure to noise
- Exposure to vibration
- Protection against dehydration and heat exhaustion
- Protection from wet & cold conditions
- Dealing with HIV/Aids and other diseases
- Use of Portable Electrical Equipment including
- Angle grinder
- Electrical drilling machine
- Skill saw
- Excavations including
- Ground/soil conditions
- Trenching
- Shoring
- Drainage of trench
- Welding including
- Arc Welding
- Gas welding
- Flame cutting
- Use of LP gas torches and appliances
- Loading & offloading of trucks
- Aggregate/sand and other materials delivery
- Manual and mechanical handling

- Lifting and lowering operations
- Driving & operation of construction vehicles and mobile plant including
- Trenching machine
- Excavator
- Bomag roller
- Plate compactor
- Front end loader
- Mobile cranes and the ancillary lifting tackle
- Parking of vehicles & mobile plant
- Towing of vehicles & mobile plant
- Use and storage of flammable liquids and other hazardous substances

- Layering and bedding of trench floor
- Installation of pipes in trench
- Pressure testing of pipeline
- Installing heat shrink joint sleeves
- Backfilling of trench
- Protection against flooding
- Gabion work
- Use of explosives
- Protection from overhead power lines
- As discovered by the Principal Contractor's hazard identification exercise
- As discovered from any inspections and audits conducted by the Client or by the Principal Contractor or any other Contractor on site • As discovered from any accident/incident investigation.

- Annexure 1:** Safety Agreement
- Annexure 2:** Construction Occupational Health – Safety – Environment Audit System
- Annexure 3:** Guidelines for the development of a Health and Safety Plan.
- Annexure 4:** Guide to Risk Assessment

ANNEXURE 1

EMALAHLENI LOCAL MUNICIPALITY TENDER NO: EML 47/2023

APPOINTMENT OF AN ELECTRICAL CONTRACTOR ON A MULTIYEAR CONSTRUCTION OF A 132/11KV 40MVA BULK ELECTRICAL SUBSTATION AT DUVHA PARK EXT 2 FOR PHASE 3 TO PHASE 5 – SAFETY AGREEMENT

MEMORANDUM OF AGREEMENT CONCLUDED BY AND BETWEEN: EMALAHLENI LOCAL MUNICIPALITY (HEREINAFTER REFERRED TO AS THE CLIENT)

herein represented by _____ in his capacity as _____
_____ of the Client, he
being duly authorized thereto and

_____ *(hereinafter referred to as the Mandatory)*
herein _____
represented by _____
_____ in his capacity as _____ of the Mandatory, he
being duly authorized thereto

WHEREAS:

The Client and the mandatory entered into a written, alternatively oral agreement on the... Day of
.....20 in terms of which the Mandatory undertook to carry out the following
work for the client, viz. (give a short description of the type of contract work to be done as well as the address where
work will be done)

*(The said contract work is hereinafter referred to as the **Work**)*

The Occupational Health and Safety Act, Act 85 of 1993 as amended (hereinafter referred to as **the Act**) contains amongst others certain provisions with regard to the health and safety of people at work and in connection with the usage of plant and machinery, as well as the protection of other persons than persons at work against hazards to health and safety that originates from or in connection with the activities of persons at work.

Section 37(2) of the Act makes provision for the exclusion by the parties, by way of a written agreement, of supposition and accompanying liability of the Client as stipulated in section 37(1) of the Act.

The parties have reached consensus with regard to the terms and conditions to which they agree in terms of the provisions of section 37(2) of the Act.

NOW THEREFOR THE PARTIES AGREE AS FOLLOWS

1. WRITTEN AGREEMENT

The parties herewith agree in terms of section 37(2) of the Act on the arrangements and procedures that must be followed to ensure compliance with the provisions of the Act by the Mandatory.

2. ACKNOWLEDGEMENT BY THE MANDATARY

The mandatory acknowledge herewith that he is fully acquainted with the contents of the Act, as well as with all regulations and SABS codes of practice that have been made in terms of section 43 of the Act.

3. UNDERTAKING BY MANDATARY

- (a) The Mandatory hereby undertakes and binds himself to the Client to ensure prompt and strict compliance with the provisions of the Act and the said regulations as well as with the provisions included in this Safety Agreement at all times during the execution of the Works
- (b) It is hereby recorded that the provisions of this Safety Agreement as set out hereinafter are in no way intended to restrict the duties of the Mandatory, nor to exempt the Mandatory from his obligation in accordance with the Act and the said regulations

4. PERSONAL PROTECTIVE EQUIPMENT

- (a) It is compulsory to wear equipment for eye protection when working in an eye protection zone or where the Work requires eye protection.
- (b) It is compulsory to wear safety helmets when working in a safety helmet zone or where the Work requires safety helmets.
- (c) It is compulsory to wear hearing protection when working in a noise zone or where the Work requires hearing protection.
- (d) The wearing of other protective clothing and equipment as prescribed by the Occupational Health and Safety Officer of the Client is compulsory.
- (e) The Mandatory shall ensure that the statutory requirements are complied with at all times.

5. FENCING AND GENERAL MACHINERY PROTECTION

No shield or fencing may be removed from or be moved at any machinery or installation without written permission.

6. SCAFFOLDING, LADDERS, TOOLS, ET CETERA

The Mandatory without the written permission of the Client may use no equipment or tools that belong to the Client.

Except where agreed beforehand the Mandatory shall provide enough tools and equipment to enable him to complete the Works and the Mandatory shall provide all storerooms, offices and eating halls that he may need. The Mandatory will be responsible for all his material on site.

In special case where the Client may lend equipment, tools or materials to the Mandatory, the Mandatory will use such equipment, tools and/or materials at his own risk and the Mandatory herewith indemnifies the Client against any liability of whichever nature or from any cause whatsoever, whether direct or indirect, that may arise from such usage.

7. SERVICES AND WORKING METHODS

The written permission of the Chief Executive/Town Clerk of the Client shall be obtained where any work which must be undertaken by the Mandatory is connected with a working process or machinery or any other service in connection therewith, or may possibly affect it, before he commences with such work.

Approval shall be obtained from the City Electrical Engineer of the Client before any equipment is connected to the electrical supply of the Client. All equipment shall be isolated before any equipment is connected to the electrical supply of the Client.

It shall be isolated and be provided with earth leakage protection. Electrical machinery, portable electrical tools and portable lights must comply with the requirements of the applicable regulations.

Work permits must be issued in terms of the Occupational Health and Safety Act and Regulations when the nature of the work requires it. Permits must be issued by the relevant departmental head where necessary.

8. EXCAVATIONS

Written permission for excavations shall be obtained from the City Engineer of the Client and the Mandatory shall make sure of the existence and position of electrical cables, discharge pipes, gas lines, water conduits, et cetera before he commences with any excavation work.

All excavations and obstructions and/or any openings in platforms or floors shall be enclosed in a safe way and warning notices shall be erected to ensure absolute safety. An adequate number of red or orange caution lights shall be provided when it is dark or should bad light prevail.

The area surrounding excavations shall be kept in a safe, orderly and tidy condition. No walkways or workplaces.

Nobody may enter into any restricted area in which hazardous fumes or a shortage of oxygen exists without a permit giving permission to do so, issued by the head of the relevant department of the Client and until it has been certified safe for entrance by the Occupational Health and Safety Officer and the Health Inspector of the Client.

9. RESTRICTION TO WORKPLACE

Employees of the Mandatory shall be restricted to their workplaces except when they have to leave their area for work purposes or when they visit toilets.

10. SUBCONTRACTORS

The Mandatory shall ensure that all subcontractors receive a copy of this safety agreement and must ensure they comply with it.

11. OCCUPATIONAL HEALTH AND SAFETY OFFICER AND THE REPORTING OF ALL ACCIDENTS

The Occupational Health and Safety Officer of the Client is available for consultation and he will make periodical visits to the workplace of the Mandatory. Any hazardous occurrence or incident to the employees of the Mandatory that results in absence from work for a period longer than three days shall be reported in writing to the Occupational Health and Safety Officer of the Client within forty eight hours as well as to the Department of Labour as specified by the Act. Every user, employer, occupier, builder or excavator must, under this Act, keep record of all accidents that occur.

In the case of an accident that results in loss of life, nobody may disturb the scene of the accident or any articles involved in the accident prior to the arrival of the Occupational Health and Safety Officer and the Inspector, unless it is to prevent another accident from happening or the prevention of loss of life or to remove corpses.

The Occupational Health and Safety Officer will issue contravention notices to the Mandatory or a subcontractor when there is a non-compliance and will specify the time in which it must be rectified.

The Occupational Health and Safety Officer will issue work stop notices to the Mandatory or subcontractor whenever he is of the opinion that the health and safety of any person at work is threatened or that the contravention notices are not adhered to.

12. FIRST AID

Where five or more persons are employed at a workplace, the Mandatory shall provide and maintain an adequately equipped first-aid box that meets the following requirements:

- (a) Every first-aid box shall contain the minimum contents as prescribed by the Occupational Health and Safety Act.

(b) Nothing except articles and equipment required for first-aid purposes may be kept in the first-aid box.

(c) Each first-aid box shall be kept in a place readily accessible in case of an accident.

All first-aid boxes shall be placed under control of a responsible person except where five or less persons are at work. The responsible person must be in the possession of a valid first-aid certificate issued by one of the following organizations:

A South-African Red Cross Society B

St. John's Ambulance Foundation

C South-African First-Aid League

A notice indicating where the first-aid box is kept as well as the name of the person in charge shall be affixed in a conspicuous place. The first-aid facilities of the Client may be used during emergencies.

13. FIRE PREVENTION MEASURES AND STORAGE OF FLAMMABLE MATERIAL

The Fire department of the Client shall be notified before any welding, oxyacetylene welding, cutting, burning of paint or tar from floors or roofs is undertaken so that the necessary fire prevention measures can be arranged. All "NO SMOKING AND OPEN SURFACE FIRES/LIGHTS PROHIBITED" notices shall be adhered to. The Mandatory and his senior employee shall acquaint themselves and their fellow workers with the fire prevention measures of the Client, which will also include fire alarm notices and exits in case of fire, and they shall ensure that these rules are strictly complied with.

14. COMPLETION OF WORK

Before the mandatory or his sub-contractors leaves the site they shall inform the Head of the relevant Department of the Client and obtain his/her written approval that the work has been completed satisfactory and that the site of the work is left in a good condition.

15. SALVAGED MATERIAL AND EQUIPMENT

Any building demolished or equipment or materials that are salvaged whilst carrying out the work shall remain the property of the Client, unless the contract specifically provides otherwise.

16. BREAKING OF THESE RULES AND POOR CONDUCT

The Mandatory is warned that no behaviour that causes danger to their own employees, to the employees of the Client or general public will be tolerated. The Occupational Health and Safety Officer of the Client reserves the right of the withdrawal of any employees of the Mandatory or Client from the premises in the case of any default or breach of the agreement and to order that the completion of the work be stayed, pending compliance with this agreement; alternatively to cancel the agreement referred to in par.2 in which event the Client will be entitled to appoint an alternative contractor to complete the work and recover the costs thereof from the mandatory, without prejudice to any alternative or additional right or action or remedy to the Client, to recover from the mandatory damages for the default or breach and the cancellation.

The senior employees of the Mandatory shall sign a note of acknowledgement of this safety agreement to certify that they have received the regulations as included herein and that they understand the regulations

17. INTOXICATION

Nobody that is in a state of intoxication or that is in any other condition that causes or may cause his/her incapability to control him/herself or persons under his control may and shall not be permitted on the premises of the Client. The Occupational Health and Safety Officer of the Client reserves the right to the withdrawal of any employees of the Mandatory or Client from the premises in the case of any transgression of this nature.

18. CONFIDENTIALLY

The Mandatory shall at all times treat data and information that have been made known to him or that he requires in connection with his work from the Client as confidential and he may not make unauthorized use thereof. He must also ensure that such data and information are not communicated to anybody else that is not an employee of the Mandatory without obtaining prior written approval from the Client and he must further ensure that such persons do in fact know that the said information is confidential and that they are obliged to treat it as such.

The Mandatory shall provide for adequate physical protection for any confidential documents, sketches, et cetera that he receives from the Client in connection with the work as well as for any copies thereof that he makes. He shall hand back all documents sketches and copies thereof to the Client upon completion of the work, or earlier, if so requested by the Client. The Mandatory shall inform the Client immediately should any such documents or sketches become lost.

19. INDEMNIFICATION BY THE MANDATORY

The following conditions will be applicable to the Mandatory:

- (a) The Mandatory is liable and herewith indemnifies the Client irrevocably and in full against any claim for loss or damage to property or arising from death or injury of any person and any associated loss or damage suffered, and against all lawsuits, claims, demands, costs, expenses, and charges that may arise when the said occurrences are caused on purpose or through the negligence, violation of legal obligations or failure by the Mandatory or its employees.
- (b) Whenever any of the employees of the Client is busy with work to, or with the supply of material that will be used during the execution of the work by the Mandatory, or otherwise busy with work under the instruction and supervision of the Mandatory, in as far as they may be negligent or fail to do their duty, they will be regarded as employees of the mandatory
- (c) All installations, equipment, hoisting-apparatus and other implements, scaffolding, ladders, material, et cetera that are borrowed from the Client by the Mandatory for usage during the execution of the work, will be used entirely at the risk of the Mandatory or employees of the Mandatory and the Mandatory herewith indemnifies the Client irrevocably and in full against any liability that may arise from such usage.

20. AMENDMENTS MUST BE IN WRITING

The parties agree herewith that this safety agreement is the only safety agreement between them and that no amendment thereof will be valid unless it is in writing and signed by both parties.

21. JURISDICTION AND LEGAL COSTS

In the event of any legal action being instituted pertaining to this agreement the party in default or breach will be liable for the other party's legal costs on the scale as between attorney and own client and the parties consent to the jurisdiction of the magistrate's court for purpose of any legal action being instituted.

PARTICULARS OF THE MANDATORY

Name (Mandatory) _____

C.E.O. (Section 16(1)) _____

ID NO.: _____

Designation: _____

Name of Business _____

Address of Business:

Tel number (h) _____ (w) _____ e-m ail _____

Number of employees employed _____

Registration number as allocated to the Mandatory by the Workman's Compensation

Commissioner _____

Date allocated _____

Thus done and signed on this _____ day of _____ 20 _____

As witnesses:

_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)

THE MANDATORY

Thus done and signed on this _____ day of _____ 20 _____ As witnesses

_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)

THE CLIENT

Acknowledgement of receipt of the agreement:

THE MANDATORY

ANNEXURE 2
CONSTRUCTION OCCUPATIONAL HEALTH - SAFETY - ENVIRONMENT
AUDIT SYSTEM

(Based on the New Construction Regulations)

** Denotes items applicable to both Construction sites and Contractors Plant/Storage*

1. ADMINISTRATIVE & LEGAL REQUIREMENTS

Section/Regulation	Subject	Requirements	Yes/No
Construction. Regulation 3	Notice of carrying out Construction work	Department of Labour notified Copy of Notice available on Site	
General Admin. Regulation 3	*Copy of OH&S Act (Act 85 of 1993)	Updated copy of Act & Regulations on site Readily available for perusal by employees	
COID Act Section 80	*Registration with Compels. Insurer	Written proof of registration / Letter of good standing available on Site	
Construction. Regulation 4 & 5(1)	OH&S Specification & Plan	OH&S Specification received from Client OH&S plan developed Updated regularly	
Section 8(2)(d) and Construction. Regulation 6	*Hazard Identification & Risk Assessment	Hazard Identification carried out/Recorded Risk Assessment and Plan drawn up/Updated Risk Assessment Plan available on Site Employees/Subcontractors informed/trained	
Section 16(2)	*Assigned duties (Managers)	Responsibility of complying with the OH&S Act assigned to other person/s by CEO.	
Construction. Regulation 5(2)	Designation of Person Responsible on Site	Competent person appointed in writing as Construction Supervisor	
Construction. Regulation 5(5)(a)	Designation of Subordinate Person	Competent person appointed in writing as Sub-ordinate Construction Supervisor	
Section 17 & 18	*Designation of Occupational Health & Safety Representatives	More than 20 employees - one OH&S Representative, one additional OH&S Rep. for each 50 employees or part thereof. Designation in writing, period and area of responsibility specified. Meaningful OH&S Rep. reports. Reports actioned by Management.	
Section 19 & 20	*Occupational Health & Safety Committee/s	OH&S Committee/s established. Members appointed in writing. Meetings held monthly. Minutes kept. Actioned by Management.	

Section 37	*Agreement with Mandatories (Sub-Contractors)	Written agreement with Subcontractors. List of Subcontractors displayed. Proof of Registration with Compensation Insurer/Letter of Good Standing Construction Work Supervisor designated Written arrangements concerning OH&S Reps & OH&S Committee Written arrangements regarding First Aid	
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Section/Regulation	Subject	Requirements	Yes/No
Construction. Regulation 7	Fall Prevention & Protection	Competent person appointed to draw up and supervise the Fall Protection Plan Proof of appointee's competence available on Site Risk Assessment carried out for work at heights Fall Protection Plan drawn up/updated Available on Site	
Construction. Regulation 8	Roof work	Competent person appointed to plan & supervise Roof work. Proof of appointee's competence available on Site Risk Assessment carried out Roof work Plan drawn up/updated Roof work inspect before each shift. Inspection register kept Employees medically examined for physical & psychological fitness. Written proof available	
Construction. Regulation 9	Structures	Information re. the structure being erected received from the Designer including: - geo-science technical report where relevant - the design loading of the structure - the methods & sequence of construction - anticipated dangers/hazards/special Measures to construct safely Risk Assessment carried out Method statement drawn up All above available on Site Structures inspected before each shift. Inspections register kept	
Construction. Regulation 10	Formwork & Support work	Competent person appointed in writing to supervise erection, maintenance, use and dismantling of Support & Formwork Design drawings available on site Risk Assessment carried out Support & Formwork inspected: - before use/inspection - before pouring of concrete - weekly whilst in place - before stripping/dismantling. Inspection register kept	

Construction. Regulation 11	Scaffolding	<p>Competent persons appointed in writing to:</p> <ul style="list-style-type: none"> - erect scaffolding (Scaffold Erector/s) - act as Scaffold Team Leaders - inspect Scaffolding weekly and after inclement weather (Scaffold Inspector/s) <p>Written Proof of Competence of above appointees available on Site</p> <p>Copy of SABS 085 available on Site</p> <p>Risk Assessment carried out</p> <p>Inspected weekly/after bad weather. Inspection register/s kept</p>	
--------------------------------	-------------	---	--

Section/Regulation	Subject	Requirements	Yes/No
Construction. Regulation 12	Suspended Scaffolding	<p>Competent persons appointed in writing to:</p> <ul style="list-style-type: none"> - erect Susp.scaffolding (Scaffold Erector/s) - act as Susp.Scaffold Team Leaders - inspect Susp.Scaffolding weekly and after inclement weather (Scaffold Inspector/s) <p>Risk Assessment conducted</p> <p>Certificate of Authorization issued by a registered professional engineer available on Site/copy forwarded to the Department of Labour</p> <p>The following inspections of the whole installation carried out by a competent person</p> <ul style="list-style-type: none"> - after erection and before use - daily prior to use. Inspection register kept <p>The following tests to be conducted by a competent person:</p> <ul style="list-style-type: none"> - load test of whole installation and working parts every 12 months - hoisting ropes/hooks/load attaching devices quarterly. Tests log book kept <p>Employees working on Susp.Scaffold medically examined for physical & psychological fitness.</p> <p>Written proof available</p>	
Construction. Regulation 13	Excavations	<p>Competent person/s appointed in writing to supervise and inspect excavation work</p> <p>Written Proof of Competence of above appointee/s available on Site</p> <p>Risk Assessment carried out</p> <p>Inspected:</p> <ul style="list-style-type: none"> - before every shift - after any blasting - after an unexpected fall of ground - after any substantial damage to the shoring - after rain. Inspections register kept <p>Method statement developed where explosives will be/are used</p>	

Constructions. Regulation 14	Demolition Work	Competent person/s appointed in writing to supervise and control Demolition work Written Proof of Competence of above appointee/s available on Site Risk Assessment carried out Engineering survey and Method Statement available on Site Inspections to prevent premature collapse carried out by competent person before each shift. Inspection register kept	
Construction. Regulation 16	Materials Hoist	Competent person appointed in writing to inspect the Material Hoist Written Proof of Competence of above appointee available on Site. Materials Hoist to be inspected weekly by a competent person. Inspections register kept.	
Construction. Regulation 17	Caissons & Cofferdams	Competent person appointed in writing to supervise, control & inspect the construction, installation/dismantling of caissons/coffer dams Written Proof of Competence of above appointee available on Site	

Section/Regulation	Subject	Requirements	Yes/No
		Risk Assessment carried out To be inspected daily by a competent person. Inspections register kept	
Construction. Regulation 18	Explosive Powered Tools	Competent person appointed to control the issue of the Explosive Powered Tools & cartridges and the service, maintenance and cleaning. Register kept of above Empty cartridge cases/nails/fixing bolts returns recorded Cleaned daily after use	
Construction. Regulation 19	Batch Plants	Competent person appointed to control the operation of the Batch Plant and the service, maintenance and cleaning. Register kept of above Risk Assessment carried out Batch Plant to be inspected weekly by a competent person. Inspections register kept	
Construction. Regulation 20/ Mine Health & Safety Act (29 of 1996)	Tunnelling	Complying with Mines Health & Safety Act (29 of 1996) Risk Assessment carried out	

Construction. Regulation 21/ Driven Machinery Regulations 18 & 19	Cranes & Lifting Machines Equipment	Competent person appointed in writing to inspect Cranes, Lifting Machines & Equipment Written Proof of Competence of above appointee available on Site. Cranes & Lifting tackle identified/numbered Register kept for Lifting Tackle Log Book kept for each individual Crane Inspection: - All cranes - daily by operator - Tower Crane/s – after erection/6monthly - Other cranes – annually by comp. person - Lifting tackle (slings/ropes/chain slings etc.) - 3 monthly Risk Assessment carried out	
Construction. Regulation 22/Electrical Machinery Regulations 9 & 10/Electrical Installation Regulations	*Inspection & Maintenance of Electrical Installation & Equipment (including portable electrical tools)	Competent person appointed in writing to inspect/test the installation and equipment. Written Proof of Competence of above appointee available on Site. Inspections: - Electrical Installation & equipment inspected after installation, after alterations and quarterly. Inspection Registers kept Portable electric tools and -lights and extension leads identified/numbered. Monthly visual inspection by User/Issuer/ Storeman. Register kept.	
Construction. Regulation 2 Diving Regulations	Water Environments	Competent person appointed in writing to supervise diving operations and ensure maintenance, statutory inspection and testing by an Approved Inspection Authority of equipment used Written Proof of Competence of above appointee available on Site Proof of registration of all divers present on site available Risk Assessment carried out	

Section/Regulation	Subject	Requirements	Yes/No
		Diving Manual produced. Available on Site Record of Voice Communications kept Diving Operations record kept Each Diver keeps a personal logbook. Entries countersigned by the Diving Supervisor Decompression tables available on Site Records of any Decompression illness kept Certificate of Manufacture of any Compression Chamber or Diving Bell in use available on Site	
Construction. Regulation 30/ General Safety Regulation 8(1)(a)	*Designation of Stacking & Storage Supervisor.	Competent Person/s with specific knowledge and experience designated to supervise all Stacking & Storage Written Proof of Competence of above appointee available on Site	

Construction. Regulation 31/ Environmental Regulation 9	*Designation of a Person to Co-ordinate Emergency Planning And Fire Protection	Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures Emergency Evacuation Plan developed: - Drilled/Practiced - Plan & Records of Drills/Practices available on Site Fire Risk Assessment carried out All Fire Extinguishing Equipment identified and on register. Inspected weekly. Inspection Register kept Serviced annually	
Construction. Regulation 32/ General Safety Regulation 3	*First Aid	Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed) First Aid freely available Equipment as per the list in the OH&S Act. One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed) List of First Aiders and Certificates Name of person/s in charge of First Aid box/es displayed. Location of F/Aid box/es clearly indicated. Signs instructing employees to report all Injuries/illness including first aid injuries	
Construction. Regulation 33/ General Safety Regulation 2	Personal Safety Equipment (PSE)	PSE Risk Assessment carried out Items of PSE prescribed/use enforced Records of Issue kept Undertaking by Employee to use/wear PSE	
Construction. Regulation 34/ General Safety Regulation 9	*Inspection & Use of Welding/Flame Cutting Equipment	Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas Welding and Flame Cutting Equipment Written Proof of Competence of above appointee available on Site Equipment identified/numbered and entered into a register Equipment inspected monthly. Inspection Register kept	
Section/Regulation	Subject	Requirements	Yes/No
Construction. Regulation 35/ Hazardous Chemical Substances (HCS)	*Control of Storage & Usage of HCS	Competent Person/s with specific knowledge and experience designated to Control the Storage & Usage of HCS Written Proof of Competence of above appointee available on Site Risk Assessment carried out Register of HCS kept/used on Site	

Construction. Regulation 36/Vessels under Pressure Regulations	Vessels under Pressure (VUP)	Competent Person/s with specific knowledge and experience designated to supervise the use, storage, maintenance, statutory inspections & testing of VUP's Written Proof of Competence of above appointee available on Site Risk Assessment carried out Certificates of Manufacture available on Site Register of VUP's on Site Inspections & Testing by Approved Inspection Authority (AIA): - after installation/re-erection or repairs - every 36 months. - Register/Log kept of inspections, tests. Modifications & repair	
Construction. Regulation 37	Construction Vehicles & Earth Moving Equipment	Operators/Drivers appointed to: - Carry out a daily inspection prior to use - Drive the vehicle/plant that he/she is competent to operate/drive Written Proof of Competence of above appointee available on Site Record of Daily inspections kept	
Construction. Regulation 38/ General Safety Regulation 13D	*Inspection of Ladders	Competent person appointed in writing to inspect Ladders Ladders inspected at arrival on site and monthly thereafter. Inspections register kept	
Construction. Regulation 39/ General Safety regulation 13B	Ramps	Competent person appointed in writing to Supervise the erection & inspection of Ramps. Inspection register kept.	

ANNEXURE 2

GUIDELINES FOR THE DEVELOPMENT OF A HEALTH & SAFETY PLAN

1. PROJECT BACKGROUND

In terms of the Construction Regulations [Regulation 4 (1) (a)] of the Occupational Health and Safety Act, No 85 of 1993, the Client is required to compile an Occupational Health and Safety specification for each of its projects and the Principle Contractor, appointed by the Client in terms of Regulation 4 (1) (c), is required to prepare an Occupational Health and Safety Plan. This plan has to be prepared in terms of Regulation 5 (1) as well as the Client's Occupational Health & Safety Specification. In terms of Regulation 4 (2), the Client and the Principle Contractor are required to agree on the Occupational Health and Safety Plan before any work may commence.

2. FRAMEWORK FOR AN OCCUPATIONAL HEALTH AND SAFETY PLAN

2.1 INTRODUCTION

The Principal Contractor has to demonstrate to the Client that he has a suitable and sufficiently documented Occupational Health and Safety Plan as well as the necessary competencies, experience and resources to perform

the construction work safely. The Principle Contractor could be required to submit the following documentation for perusal and verification by the Client:

- ***Management Structure***
- ***Quality Plan***
- ***Human Resources Plan***
- ***Registered Workplace Skills Plan***
- ***“Letter of good standing” from the Compensation Commissioner or licensed compensation insurer.***
- ***Proof of induction and other training of employees***
- ***Example copy minutes of previous Occupational Health and Safety Committee meetings and copies of Incident Investigation Reports***

2.2 CONTENTS OF AN OCCUPATIONAL HEALTH AND SAFETY PLAN

2.2.1 Occupational Health and Safety Management Programme

- Management of Occupational Health and Safety risks
- Occupational Health and Safety structures and appointments
- Programme of Occupational Health and Safety inspections
- Occupational Health and Safety Representatives
- Occupational Health and Safety committee

2.2.2 Communication and Management of the Work

- Management structure and responsibilities
- Occupational Health and Safety goals for the project and arrangements for monitoring and review of Occupational Health and Safety performance.

- Arrangements for:

- ✦ Regular liaison between parties on site
- ✦ Consultation with the workforce
- ✦ The exchange of design information between the Client, engineer, supervisors and contractors on site
- ✦ Handling design changes during the project
- ✦ Selection and control of contractors
- ✦ The exchange of Occupational Health and Safety information between all contractors
- ✦ Security
- ✦ Site induction and onsite training
- ✦ Facilities and first-aid
- ✦ The reporting and investigation of accidents and incidents
- ✦ The production and approval of risk assessments and method statements
- ✦ Site OH&S rules
- ✦ Fire and emergency procedures
- ✦ Reporting to the Client i.e. results of Occupational Health and Safety inspections, incident and incident investigations and committee meetings

- ✦ Reporting of incidents to the Department of Labour and Compensation insurer where appropriate

2.2.3 Arrangements for controlling significant site risks

The following are some examples of the arrangements for controlling the most significant site risks:

- **SAFETY RISKS**
- Services, including temporary electrical installations
- Preventing employees from falling into excavations, from trucks etc.
- Work with, on or near fragile materials
- Control of lifting operations
- The maintenance of plant and equipment
- Poor ground conditions
- Traffic routes and segregation of vehicles and pedestrians
- Storage of hazardous materials
- Dealing with existing unstable structures/land
- Accommodating adjacent land use
- Other significant safety risks as and when identified
- **HEALTH RISKS**
- Storage and use of hazardous chemical substances
- Dealing with contaminated land or material
- Manual handling
- Reducing noise and vibration
- Provision of adequate lighting
- Ventilation considerations
- Extreme heat and cold temperature considerations
- Dealing with HIV/Aids and other illnesses
- Provision of and maintaining ablution and eating facilities
- **Other significant health risks as and when identified**

2.2.4 Preparation of an Occupational Health and Safety Operational Reference

File/Manual

THE FOLLOWING ARE SOME OF THE REQUIREMENTS TO BE ADDRESSED:

- Layout, format and content requirements
- Arrangement for the collection and gathering of information
- Storage and archiving of all the information
- Copy to the Client at completion of project

SUGGESTED CONTENTS OF AN OH&S FILE/MANUAL

- OH&S Policy
- Notice of new project
- Site start-up

- Security measures
- Written designations & appointments
- Arrangements with contractors/mandatories
- OH&S rules and procedures
- Induction
- OH&S training
- OH&S promotion
- OH&S representatives
- OH&S committees
- Workplace facilities e.g. ablutions, sheltered eating areas etc.
- Protective equipment
- Workplace inspections and audits
- Investigation & reporting of incidents/accidents
- Mechanical safeguarding
- Electrical safeguarding
- Safeguarding against hazardous substances
- Lifting machinery & equipment
- Construction vehicles & mobile plant
- Welding, heating & flame cutting
- Excavations
- Protection of the environment affected by construction activities
- Keeping of records in terms of the OH&S Act (85 of 1993)

ANNEXURE 3

GUIDE TO RISK ASSESSMENT

1. HOW TO DO IT?

2. STEPS TO EFFECTIVE RISK ASSESSMENT

- | | |
|--------|--|
| Step 1 | : Identifying the hazards |
| Step 2 | : Aim to identify major hazards, don't waste time on the minor & detail |
| Step 3 | : Involve as many people as possible in the process especially those at risk |
| Step 4 | : Gather all the information and analyse it |
| Step 5 | : Look at what actually occurs including non-routine operations |
| Step 6 | : Use a systematic approach to ensure all hazards are adequately addressed |
| Step 7 | : Assess the risks arising considering the effectiveness of controls |
| Step 8 | : Ensure the process is practical and realistic |
| Step 9 | : Always record the assessment in writing including assumptions and why |

3. HOW SERIOUS IS IT?

PROBABILITY		CONSEQUENCES
A	Common	1 Fatality or permanent disability
B	Has Happened	2 Major injury
C	Could Happen	3 Average Lost Time Injury
D	Not Likely	4 Minor Injury
E	Practically impossible	5 Medical Treatment or less

		PROBABILITY				
		A	B	C	D	E
C O N S E Q U E N C E S	N					
	1	1	2	3	4	5
	2	2	3	4	5	6
	3	3	4	5	6	7
	4	4	5	6	7	8
	5	5	6	7	8	9
		5				

Risk Rating

1 – 3 = Serious
 4 - 5 = High
 6 – 7 = Moderate
 8 – 9 = Acceptable

ACTION

Immediate (within 1 week)
 Within 1 month
 > 4 weeks
 No action

ANNEXURE B

Pro-forma agreement in terms of Occupational Health and Safety Act

PRO-FORMA AGREEMENT IN TERMS OF

OCCUPATIONAL HEALTH AND SAFETY ACT 1993 – SECTION 37 (2)

NEW CONSTRUCTION SAFETY REGULATIONS

1. The above-mentioned regulations were promulgated in the Govt. Gazette on Friday, 18 July 2003 under the Occupational Health & Safety Act (85 of 1993) and are now in force.

2. The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act 1993 (Act 85 of 1993, hereinafter referred to as the Act), that the following arrangements and procedures shall apply between them to ensure compliance by the Contractor with the provisions of the Act, namely:

3.

(a) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all the relevant provisions of the Act and the regulations promulgated in terms of the Act, and the Employer's Health and Safety Specifications included in the contract documents.

8.

(b) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations and the Employer's Health and Safety Specifications included in the contract documents will be complied with in all respects.

9.

(c) In relation to any work or activity performed by the Contractor, his workmen or any other person for whose acts or omissions the Contractor is responsible in terms of the Contract, the Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from itself being obliged to comply with any of the aforesaid duties, obligations and prohibitions.

10.

(d) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the Contractor has complied with his undertakings as set out more fully in paragraphs (a) and (b) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or to inspect any appropriate records held by the Contractor.

11.

(e) The Contractor shall be obliged to report forthwith in writing to the Representative/Agent full details of any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract.

12.

(f) Forward "safety meeting" minutes to the representative/Agent.

For the Employer: _____ Date: _____

Witnesses: (1): _____ (2) _____

For the Contractor: _____ Date: _____

Witnesses: 1): _____ 2) _____

ANNEXURE C

Notification of construction work

ANNEXURE 1

APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK

[In terms of Regulation 3(2) of Construction Regulations, 2014]

This application must be submitted with the following documents:

1. Health and Safety specification.
2. Health and Safety plan.
3. Baseline risk assessment.

1. Name, postal address and telephone numbers of the client:

2. Details of the Agent.

- a. Title, Surname and Initials. _____
- b. Identity number/ Passport Number _____
- c. Registration number with SACPCMP _____
- d. Office Tel. number and/or Mobile number _____
- e. Postal address. _____

3. Name, postal address and telephone numbers of the appointed principal contractor:

4. Name, postal address and telephone numbers of designer of the project:

5. Name, postal address and telephone numbers of the following persons:

a. Construction Manager:

b. Construction Health and Safety Manager:

c. Construction Health and Safety Officer:

6. Exact physical address of the construction and site office:

7. Nature of construction work:

8. Expected commencement date:

9. Expected completion date:

10. Estimated maximum number of persons on the construction site:

11. Planned number of contractors on site accountable to principal contractor:

12. Name(s) of contractors appointed:

13.

Signature of Client/Client's Agent

14.

Signature of the Principal Contractor

FOR OFFICE ONLY

Authorization /Unique No.	LABOUR CENTRE	OFFICIAL APPROVAL STAMP

15. Date of application: _____

16. Submitted documents prescribed in Construction Regulation 5(4) (Please Tick ✓):

CR 5(1)(a)		CR 5(1)(b)		CR 5(1); (C-S)	
------------	--	------------	--	-------------------	--

17. Result of the application (Please Tick ✓):

Approved

Declined

18. Reason for declining the application:

19. _____
Signature of the Supervisor

20. _____
Signature of revoking Officer/ Inspector

ANNEXURE D

Pro-forma Contract between Contractor and Worker

SPECIAL PUBLIC WORKS PROGRAMMES

CONTRACT OF EMPLOYMENT BETWEEN

CONTRACTOR Name:

Address:

ID:

AND

WORKER

Name:

Details ID:

I am pleased to confirm that you have been appointed to work on a task based employment contract within a Special Public Works Programme (SPWP) project. Within this contract you will undertake numerous groups of tasks.

This contract must be read in conjunction with the standard terms and conditions of employment on SPWP attached.

The project where you will be employed is located at

The contract will start on

You must be aware that this contract is a limited term contract and not a permanent job. The contract may be terminated for one of the following reasons:

- a) If the contractor does not get additional contracts from the SPWP.
- b) Funding for the programme in your area comes to an end.
- c) You repeatedly do not perform in terms of the tasks set out in your work programme.

6 You will be employed as a within the team.

7 While you are working you will report to

8 Payment

- a) You will be paid a fixed amount of R..... for completing a fixed amount of work.
- b) The amount of work required for the agreed rate of pay will vary from task to task. You will be informed at the beginning of each task or group of tasks how much work you are expected to complete per day. c) You will only be paid for work completed.
- d) You will be paid the amount for the number of days quoted in the contract even if you finish the work before the time or after the estimated date of completion.
- e) A contractor must pay you the production bonus (the extra days if the work is finished early) if you have completed your share of tasks.
- f) The contractor will be paid within 30 days after the work is completed. You will be paid within 5 days of the contractor being paid.

9 In addition to the conditions above all the terms and conditions of employment on SPWP apply to your employment. If you breach any of these terms your contract may be terminated.

10 Signatures:

Signed on this day of 20...

Contractor: Date:

Worker: Date.

Witness: Date:

ANNEXURE E

Pro-forma Attendance Register

EXPANDED PUBLIC WORKS PROGRAMME - POVERTY RELIEF PROJECT

CONTRACTOR'S PERSON-DAYS, TRAINING AND ATTENDANCE REGISTER

PARK:		MONTH:	
PROJECT:		CONTRACTOR:	

[illegible]

CODE	CATEGORY
W = WORKING (PAID)	SC = SUPERVISOR / CONTRACTOR
I = ABSENT INJURED / SICK	SW = SKILLED WORKER
X = ABSENT / SENT HOME (UNPAID)	SS = SEMI SKILLED
T = OFF-SITE TRAINING (PAID 100%)	CL = CLERICAL
	UL = UNSKILLED LABOURER

CONTRACTOR	SIGNATURE	DATE
PROJECT MANAGER	SIGNATURE	DATE

ANNEXURE F

Contractor's monthly report format

CONTRACTOR'S MONTHLY REPORT

Part 1

Tender number:	ELM 05/2023
Project name:	Panel of contractors for construction, supply and maintenance of stormwater drainage on "as and when basis" for a period of 36 months in Emalahleni Local Municipality
Project description:	Panel of contractors for construction, supply and maintenance of stormwater drainage on "as and when basis" for a period of 36 months in Emalahleni Local Municipality
Contract number:	
Name of Contractor:	
Payment certificate number:	
For month ending:	
Date of report:	

The Contractor's monthly report comprises an integral part of the Contractor's payment certificate and must be submitted together with the payment claim. The payment certificate will not be processed without this signed report, i.e. "NO REPORT – NO PAYMENT".

Attachments:

Part 2: Overall Project Worker Schedule: Schedule of all local labourers employed since the start of the project

Part 3: Weekly Task Wage Register

Part 4: Local Labour Schedule

Part 2

OVERALL PROJECT WORKER SCHEDULE (local labourers only)

*Names of all **Local Workers** employed at any time on the project are to be entered in the table below irrespective of how long they worked on the project.*

[illegible]

Total number of workers employed = Completed
by:

Signed

Initials and surname

Capacity

Date _____

Part 3

WEEKLY TASK WAGE REGISTER (local labourers only)

<i>Entries in this portion to be completed by Foreman</i>									<i>Entries in this portion to be Completed by Contractor</i>				
No.	Name of local worker	Day Tasks Worked							Payment				
		Mo n	Tue	Wed	Th u	Fri	Sat	Su n	Total DAY TASKS worked this week	Rate per DAY TASK	Total payment due to worker	Workers signature on receipt of payment	Date payment received by worker
Totals for this sheet													
Totals brought forward from previous sheet													
Totals carried forward to next sheet													

3 (A)

3 (B)

Completed by:

.....
initials and surname
capacity
signed
date

Part 4

LOCAL LABOUR AND SUPPLIER SCHEDULE

1. Summary of day tasks worked and amount spent on local labour this month

Week No.	Week Ending	Total Day Tasks / Person Days Worked <i>Total of 3(A) from Part 3 for each week</i>	Total Amount Paid <i>Total of 3(B) from Part 3 for each week</i>
1			
2			
3			
4			
5			
Total this month			

2. Summary of amount spent on local labour to date

1. Previous amount spent on local labour (from previous claim)	R
2. Amount spent on local labour this month (from total above)	R
3. Total amount spent on local labour to date (3) = (1+2)	R

3. Local labour schedule

Summary of Local Labour Employed <i>Refer to Part 2</i>	Number of local workers who worked on the project to date	% of Total
1. Total number of <i>individual local workers</i> who have worked on the project		100%
2. Number of <i>local youth</i> (35 yrs and under) (columns B plus D)		
3. Number of <i>local women</i> (columns A plus B)		

4. Summary of amount spent on local suppliers to date

1. Previous amount spent on local suppliers (from previous claim)	R
2. Amount spent on local suppliers this month (from total above)	R
3. Total amount spent on local suppliers to date (3) = (1+2)	R

Completed by:

.....
Signed

.....
initials and surname

.....
Capacity

.....
date

ANNEXURE H

Environmental Management Plan

[Insert project EMP]

ANNEXURE I

Geotechnical Investigation Report [NOT AVAILABLE]

ANNEXURE j

Environmental Management Plan

[Insert project EMP]

ANNEXURE K

Geotechnical Investigation Report
[NOT AVAILABLE]

ANNEXURE L

Tender Drawings
[Insert Tender Drawings]

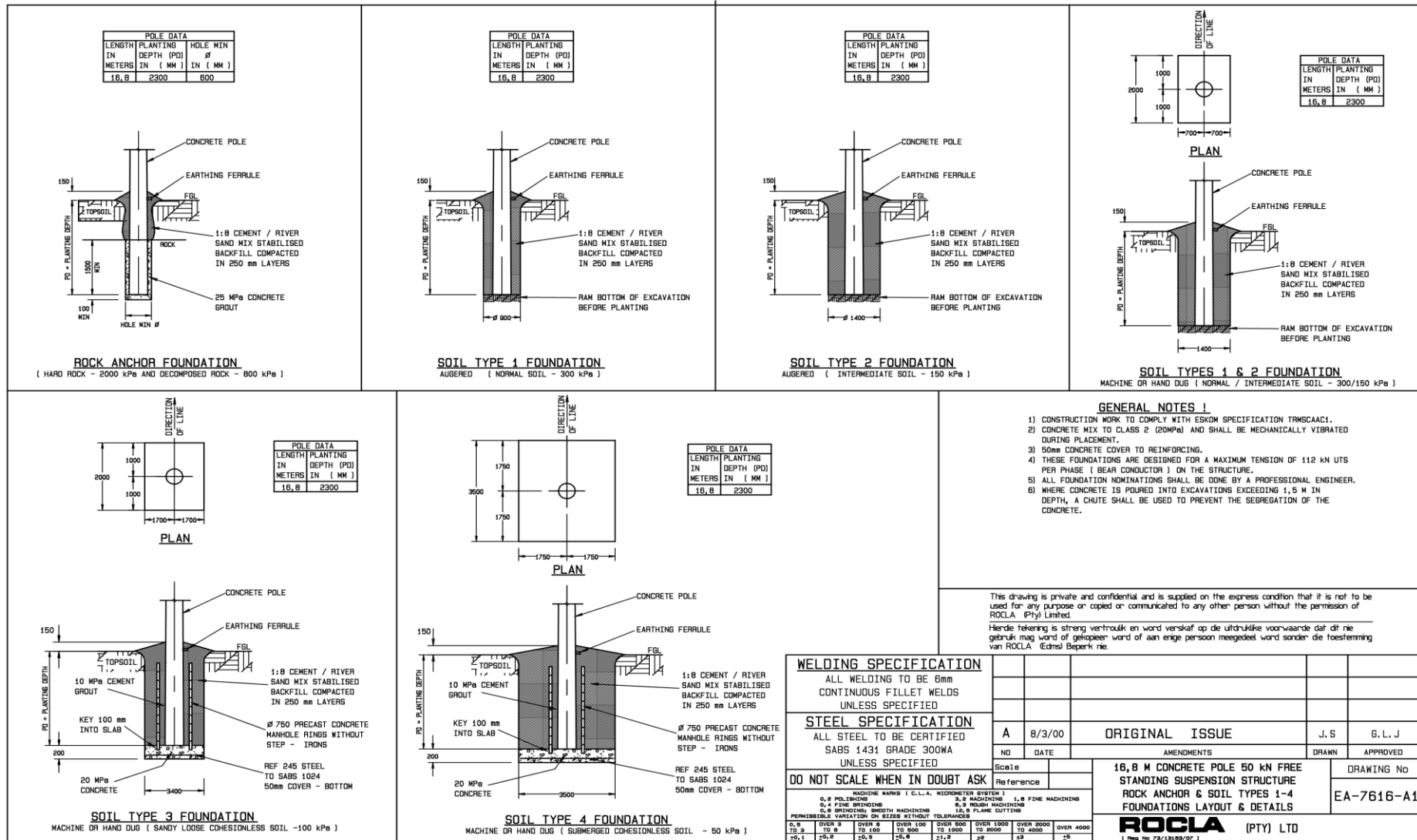
LIST OF DRAWINGS		
		A4
		A4
		A4

NB: All pole structures to SANS/IEC/ MUNIC standards

ANNEURE G: 132kV Structures

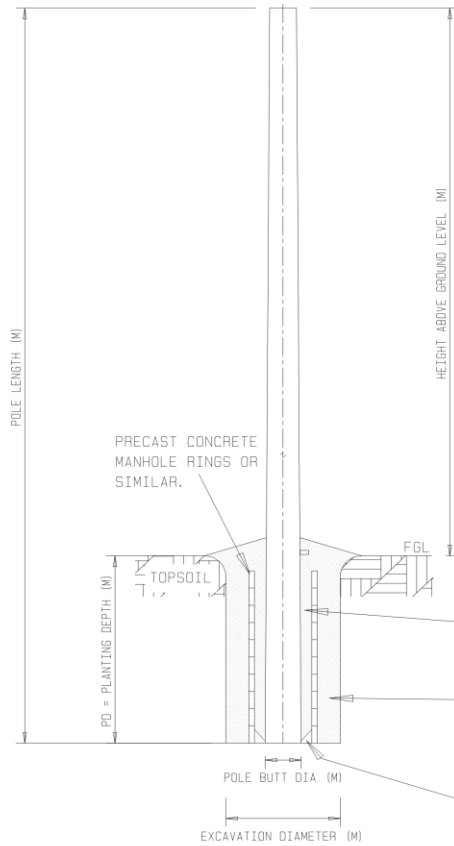
253AS	253BS	253CS	253TS																																																																																																																													
<p>18,0m - 32,0m CONCRETE POLE 28/40kN FREE STANDING SINGLE CIRCUIT SUSPENSION STRUCTURE</p> <p>POLE DETAILS</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <th>LENGTH m</th> <th>TIP SIZE</th> <th>BASE SIZE</th> <th>MASS kg</th> <th>ULTIMATE TIP LOAD</th> </tr> <tr> <td>18,0</td> <td>228mm</td> <td>498mm</td> <td>3250</td> <td>28kN</td> </tr> <tr> <td>19,2</td> <td>300mm</td> <td>588mm</td> <td>5000</td> <td>40kN</td> </tr> <tr> <td>21,0</td> <td>300mm</td> <td>615mm</td> <td>5300</td> <td>40kN</td> </tr> <tr> <td>24,0</td> <td>300mm</td> <td>660mm</td> <td>6500</td> <td>40kN</td> </tr> <tr> <td>28,8</td> <td>300mm</td> <td>732mm</td> <td></td> <td>40kN</td> </tr> <tr> <td>32,0</td> <td>300mm</td> <td>780mm</td> <td></td> <td>40kN</td> </tr> </table> <p>GENERAL</p> <p>Nominal system voltage (Un) 132kV Circuit configuration single Phase conductor configuration delta Max conductor size bear Conductor quantity per phase 1 Earth conductor size (1100MPa) 7/3, 35mm Earth conductor quantity 1 Nominal design span 300m Maximum design span 550m Phase conductor sag at 50°C 7,2m Earth conductor sag at 35°C 5,8m Minimum phase conductor ground clearance 6,3m Maximum swing angle - phase conductor 55° - earth conductor 34°</p> <p>STRUCTURE LOADING</p> <table border="1" style="width: 100%; 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This annexure serves as a guide to the drawings mentioned and in no way replaces the notes on these drawings. The following structures make up the D-0T-253 standards: D-0T-253AS 28/40kN Free Standing Single Circuit Suspension Structure. D-0T-253BS 65kN Free Standing S/Circuit 0°-25° Angle Strain Structure. D-0T-253CS 206kN Free Standing S/Circuit 15°-90° Angle Strain Structure. D-0T-253TS 206kN Free Standing Single Circuit 0°-45° Terminal Structure. D-0T-253ES 50kN Stayed Single Circuit 0°-90° Angle Strain Structure. D-0T-253FS 50kN Stayed Single Circuit In-Line Terminal Structure. D-0T-253AD 65kN Free Standing Double Circuit Suspension Structure.</p> <p>SPAN LENGTHS</p> <p>The maximum allowable wind and weight span lengths are shown on this sheet.</p> <p>FOUNDATIONS (Poles and stays)</p> <p>All foundation nominations shall be done by a professional engineer with reference to the Geotechnical Design Parameters in Eskom specification TRM5CAAC1 and the drawings for the standard foundation designs in this tower series.</p> <p>STAYING OF STRUCTURES</p> <p><u>Permanent Stays</u> Reference must be made to the relevant structure drawings for the staying details.</p> <p><u>Temporary Stays</u> Strain structures shall generally require temporary backstaying during the stringing operation only. Details of these stays can be found on drawing no D-0T-253 sheet 2 (Conductor Attachment and Damping).</p> <p>If you require further assistance contact - BARRY HILL Distribution Technology Phone no 011- 871 2357</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td colspan="2">TOWER TYPE 253</td> <td colspan="2">LINE DESIGN DATA</td> </tr> <tr> <td colspan="2">D-0T-253</td> <td colspan="2">1 1</td> </tr> </table>	TOWER TYPE 253		LINE DESIGN DATA		D-0T-253		1 1																																																				
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ANNEURE G: 132kV Structures Foundations;



ROCLA (PTY) LTD

DRAWING No
EA-7616-A1



1 PART CEMENT TO 4 PARTS COURSE
SAND, THOROUGHLY MIXED AND
WETTED TO A DAMP CONSISTANCY, COMPACTED
IN LAYERS NOT EXCEEDING 150mm THICKNESS.

BACKFILLING TO 93% MOD ASSHTD
AT OPTIMUM MOISTURE CONTENT
IN LAYERS NOT EXCEEDING
150mm THICKNESS.


BASE GUIDE RING

POLE LENGTH (M)	PLANTING DEPTH (M)	HEIGHT ABOVE G.L. (M)	POLE BUTT DIA (M)	EXC. DIA. (M) FOR SOIL BEARING PRESSURE (kPa)			
				100	150	200	250
16.8	2.3	14.5	0.55	3.5	2.3	1.8	1.4
18.0	2.4	15.6	0.57	3.4	2.3	1.7	1.4
19.2	2.5	16.7	0.59	3.4	2.3	1.7	1.4
21.0	2.7	18.3	0.62	3.2	2.1	1.6	1.3
24.0	3.0	21.0	0.66	2.9	2.0	1.5	1.3
26.4	3.2	23.2	0.70	2.8	1.9	1.4	1.3
28.8	3.5	25.3	0.73	2.6	1.7	1.3	1.3
31.2	3.7	27.5	0.77	2.5	1.7	1.4	1.4
33.6	4.0	29.6	0.80	2.3	1.6	1.4	1.4
36.0	4.2	31.8	0.84	2.3	1.5	1.4	1.4
39.6	4.6	35.0	0.89	2.1	1.5	1.5	1.5

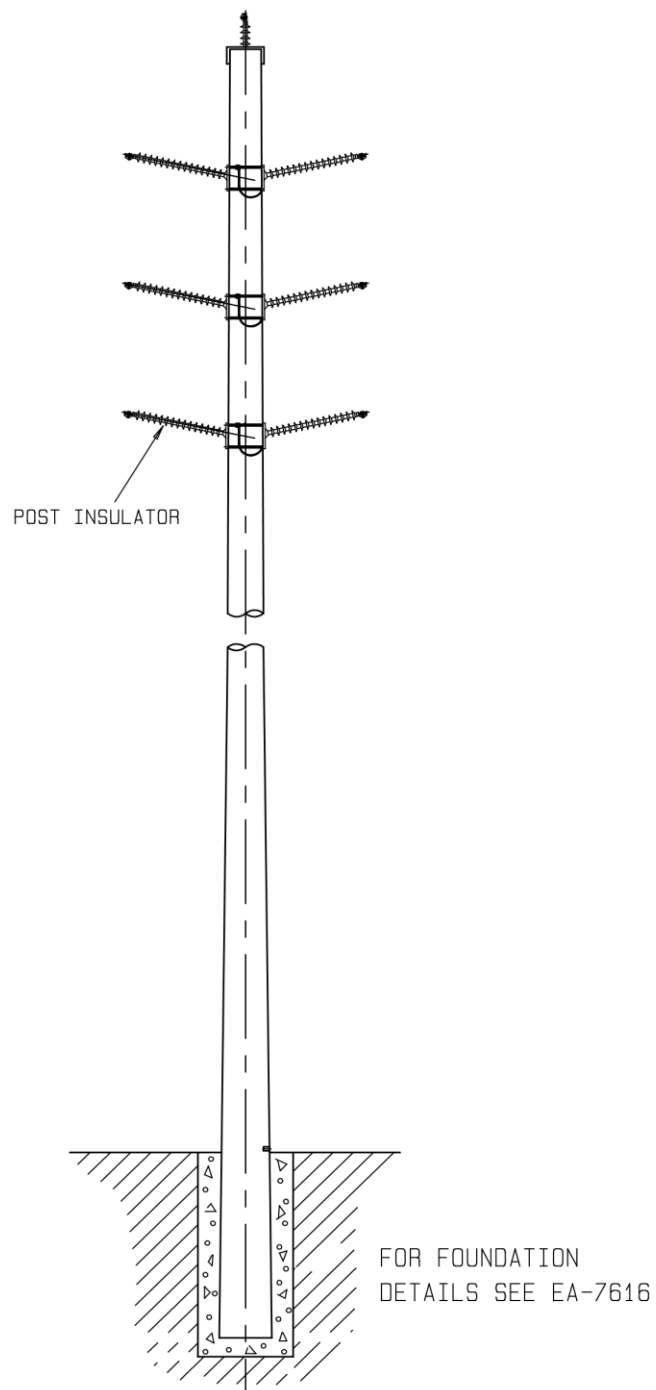
1. ULTIMATE LOAD STRENGTHS OF POLES: 50kN.
2. MINIMUM EXCAVATION DIAMETER = POLE BUTT DIAMETER + 600mm.
3. FACTOR OF SAFETY BETWEEN ULTIMATE AND WORKING LOADS = 2,4.
4. FACTOR OF SAFETY FOR FOUNDATION DESIGN = 2,0.
5. ULTIMATE LOAD MAY BE APPLIED AT A POSITION 300mm FROM THE POLE TOP.
6. SEE ROCLA (Pty) Ltd METHOD STATEMENT FOR THE ERECTION OF ROCLA CONCRETE MASTS, REVISION 3 APRIL 2000.
7. THESE DETAILS NEED TO BE APPROVED ON SITE BY A PROFESSIONAL ENGINEER.

WELDING SPECIFICATION
ALL WELDING TO BE 6mm CONTINUOUS
FILLET WELDS UNLESS SPECIFIED

STEEL SPECIFICATION
ALL STEEL TO BE CERTIFIED SABS 1431
GRADE 300WA UNLESS SPECIFIED

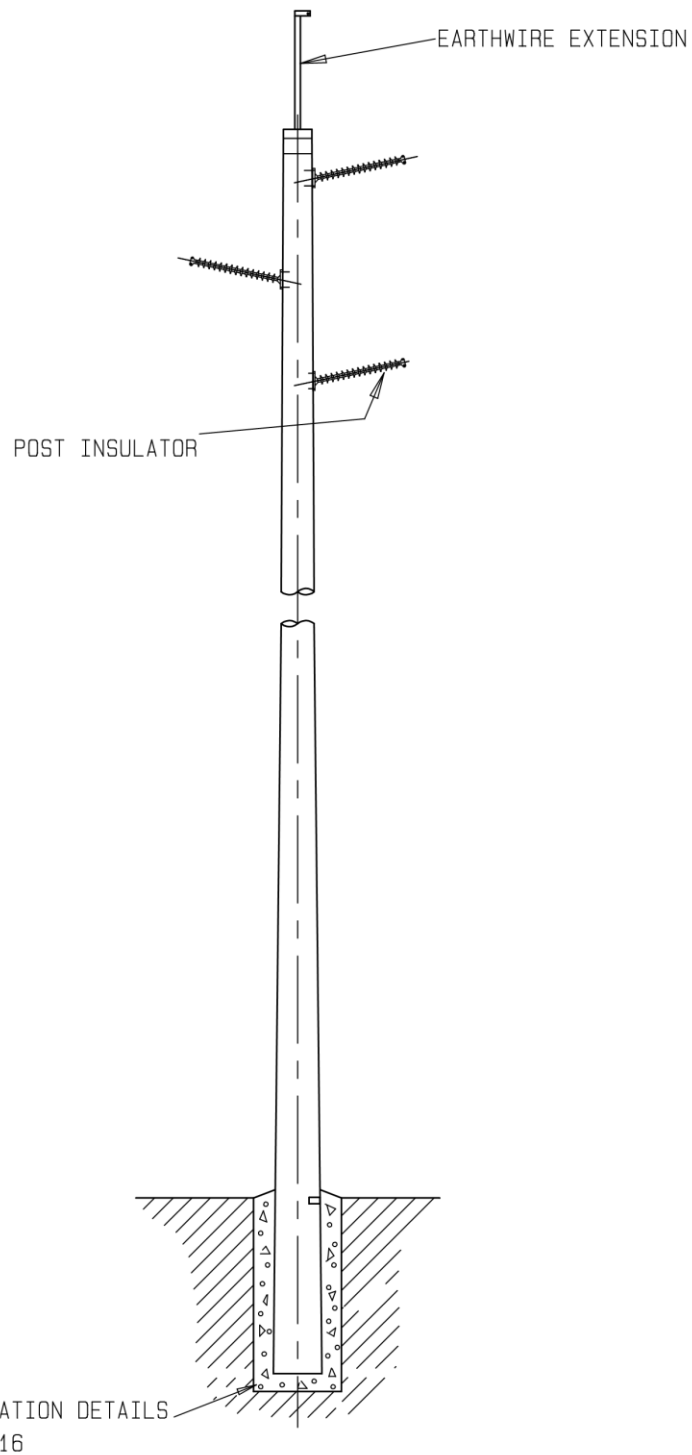
B	21/6/05	ADDED POLE BASE GUIDE RING		G, L, J	G. L. J
A	21/8/01	ORIGINAL ISSUE		J. S	G. R
NO	DATE	AMENDMENTS		DRAWN	APPROVED
Scale		SUGGESTED FOUNDATION DETAILS OF ROCLA CONCRETE MASTS.			DRAWING No
Reference					DA-7894-B1
ITEM) FINISHING 1,6 FINE MACHINING MACHINING FLAME CUTTING					
FOR 1000 2000		OVER 2000 TO 4000		OVER 4000	
		±3		±5	
ROCLA					
<div> A Murray & Roberts company</div>					

0 10 20 30 40 50 60 70 80 90 100



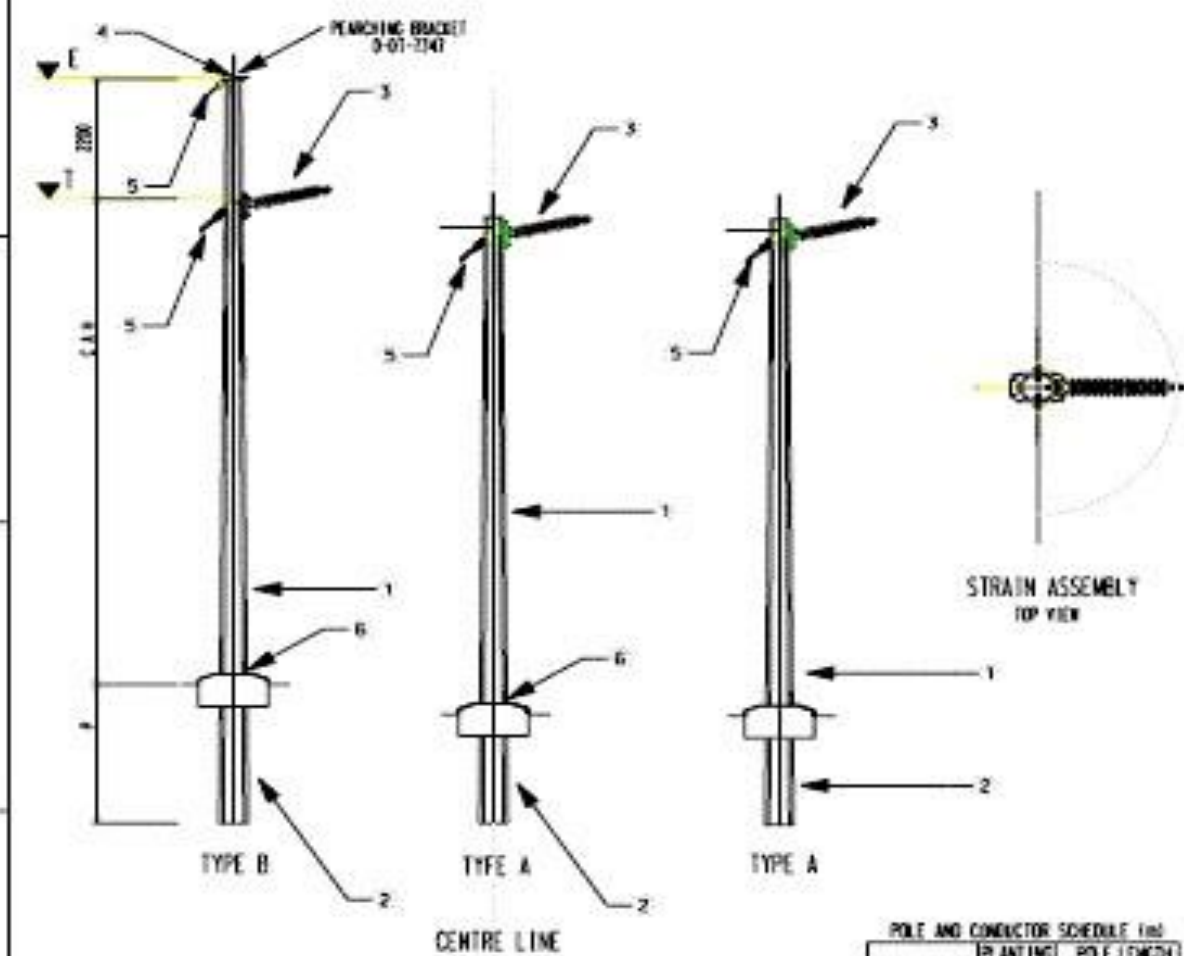
This drawing is private and confidential and is supplied on the express condition that it is not to be used for any purpose or copied or communicated to any other person without the permission of ROCLA (Pty) Limited

A	21/02/02	ORIGINAL ISSUE		J. S	A. O
NO	DATE	AMENDMENTS		DRAWN	APPROVED
SCALE		REFERENCE		DRAWING NO	
TYPICAL DOUBLE CIRCUIT SUSPENSION POLE WITHOUT EARTHWIRE EXTENSION.				PA-7985-A1	
ROCLA (PTY) LTD				(Reg No 73/13163/07)	



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A	21/02/02	ORIGINAL ISSUE	J. S	A. O
NO	DATE	AMENDMENTS	DRAWN	APPROVED
SCALE		REFERENCE		DRAWING NO
TYPICAL SINGLE CIRCUIT DELTA CONFIGURATION SUSPENSION POLE WITH EARTHWIRE EXTENSION.			PA-7984-A1	
ROCLA (PTY) LTD			(Reg No 73/13163/07)	



POLE AND CONDUCTOR SCHEDULE (mm)

C & H		PLANTING DEPTH	POLE LENGTH	
T	E	P	TYPE A	TYPE B
6.2	8.4	1.6	8	10
7.1	9.3	1.7	9	11
8.0	10.2	1.8	10	12
8.9	11.1	1.9	11	13
9.8	12.0	2.0	12	14
10.7	12.9	2.1	13	15
11.6	13.8	2.2	14	16
12.5	14.7	2.3	15	17
13.4	15.6	2.4	16	18
14.3	16.5	2.5	17	19
15.2	17.4	2.6	18	20
16.1	18.3	2.7	19	21

2	ORD SH1 UPDATED- REFERENCES REVISED- GENERAL REVISION	PM	SLR	A BEKKER	SEP 2005	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.



AUTH: A BEKKER
DATE: JAN 2004
CHKD: RAB
DATE: JAN 2004
DRAWN: LMP
DATE: 22/11/1998

DISTRIBUTION TECHNOLOGY

RETICULATION/ SUB-TRANSMISSION LINES

88/132KV 3-POLE STRAIN STRUCTURE (0-90°)

GENERAL ARRANGEMENT

D-DT 7618

SET	SHEET	REVISION
2	1	2

SPECIFICATION FOR ROCLA CONCRETE POLES

Date: 20.08.04

1. SCOPE

This specification covers Rocla spun concrete poles used for distribution and electrification purposes.

It covers reinforced and partially prestressed concrete poles manufactured by the centrifugal spinning method.

The specification was produced with the following objectives:

- Specifying key parameters which will ensure the provision of a quality product;
- Encouraging adoption of standard pole dimensions and other parameters which will allow interchangeability of poles and fittings;
- Familiarizing possible users of concrete poles with the technical features of concrete poles.

2. PHYSICAL CHARACTERISTICS

2.1 **GENERAL.** Rocla concrete poles are circular, hollow spun concrete poles. Standard lengths vary from 6 m to 24 m in single lengths and 24 m to 33,6 m lengths in jointed poles. Tip diameters vary from 130 mm to 300 mm. The poles have a constant increase in diameter of 15 mm/m length.

2.2 **DESIGN.** Rocla spun poles are either reinforced or partially prestressed. It is available in a wide range of tip load capacities.

When poles are required for use in a marine environment or aggressive soils the purchaser may specify special additional requirements, which may include one or more of the following:

Protective coatings;
Additional concrete cover to reinforcement;
Replacement of cement with slagment or silica fume;
Increased factor of safety (which will limit the crack widths).

3. MANUFACTURE.

3.1 **GENERAL.** Rocla poles are manufactured in accordance with SANS 470 (Standard Specification for Concrete poles for telegraph, telephone, power and lighting purposes (reinforced and prestressed types)). The poles are produced in a factory that is ISO 9001:2000 accredited.

3.2 **MATERIALS**

3.2.1 **GENERAL.** Materials for the concrete shall be so selected as to produce a high density, low porosity concrete.

3.2.2 **CEMENT.** The cement used in the manufacture of poles complies in all respects with the requirements of SANS 50197-1.

3.2.3 **AGGREGATE.** The aggregate consists of natural sand, or crushed or uncrushed gravel, stone, or rock, or a combination of any of these.

3.2.4 **WATER.** The water used in the manufacture of the concrete will be clean and free from injurious amounts of acids, alkalis, organic matter, and other substances that may impair the strength or durability (or both) of the concrete.

- 3.2.4 **REINFORCEMENT.** This complies with the requirements of SANS 920, SANS 1024 or BS 5896, or any other high tensile steel wire that has been agreed upon between manufacturer and purchaser.

Reinforcing bars and wires will be free from loose or heavy rust, scale, oil and grease, or any material, which might interfere with the bond between the bar and the concrete. Slight rust may however be permitted.

- 3.2.6 **ADMIXTURES.** Admixtures used will not have any harmful effects on the concrete properties. Admixtures containing calcium chloride, accelerating admixtures or rust inhibiting admixtures will not be used.

- 3.2.7 **ADDITIVES.** The use of additives to enhance the concrete properties will be allowed.

- 3.2.8 **DYES.** The concrete may be dyed with the addition of mineral pigments. The total contents of chlorides and sulphates soluble in water will be controlled to ensure that it has no deleterious effects on the concrete.

3.3 **DIMENSIONS.**

- 3.3.1 **LENGTH.** The length of the pole shall be as specified by the purchaser and shall be preferably one of the following:

Starting from 6,0 and increasing in steps of 1,5 m to 15 m, and then in steps of 3,0 m to 24,0 m and then in steps of 2,4 m to 33,6 m.

The actual length of a pole will not differ from the stated length by more than 50 mm.

- 3.3.2 **COVER TO REINFORCEMENT.** The minimum thickness of the cover over all reinforcements in the case of centrifugally spun poles will not be less than 15 mm over the entire length of the pole. When no concrete cover for reinforcement is provided at the tip or the butt of the pole, a cover shall be provided by resin or epoxy or other suitable sealants.

- 3.3.3 **STRAIGHTNESS.** A deviation from straightness will not exceed 0,5% ($L/200$) of the total length of the pole. The deviation is taken as the maximum distance measured between the external face of the pole and the straight line drawn by the chord joining the tip and butt ends of the pole. The measurements should be done on at least two faces of the pole, which are at 90 degrees apart.

- 3.3.4 **CROSS-SECTIONAL DIMENSIONS.** The tolerance in cross-sectional dimensions will be ± 3 mm.

3.4 **FINISH**

The finished product will have a smooth external surface free from honeycombing. All arrises will be clean and true and shall present a neat appearance.

3.5 **HOLES.**

If so required, holes shall be provided in the poles during the manufacturing process. These holes may be used for the attachment of cross-arms and other equipment.

3.6 **LENGTH/STRENGTH COMBINATIONS.**

Any length/strength combination of pole may be ordered.

Poles may also be manufactured by joining together single pole segments with suitable connecting pieces in such a manner that the jointed pole act as one unit.

3.7 **STEELWORK FOR CROSS-ARMS (IF REQUIRED)**

- 3.7.1 All steel to be certified 300 W, unless specified.

- 3.7.2 All welds shall be continuous, neat and free of cracks.
- 3.7.3 All material surfaces shall be cleaned of welding spatter, slag etc. before galvanising.
- 3.7.4 All threads should be protected against rust before galvanising by means of oiling.
- 3.7.5 All tapped threads should be retapped as specified after galvanising and protected against rust by means of oiling.
- 3.7.6 All items to be hot dip galvanised to SANS 121 after drilling and welding.
- 3.7.7 All drawing and item numbers to be punched on each item.

4. **CONSTRUCTION**

4.1 **FOUNDATION.**

Foundation width and depth must be according to engineer's design. It is recommended that sleeves should be used to facilitate easy installation with bad soil conditions to prevent collapsing of the hole. For backfilling, use 1:8 cement sand mix and backfill in layers of not more than 200 mm and thoroughly compacted. Once drilled the holes must be cordoned off with chevron tape or similar measures.

4.2 **SLAB**

In the case where a slab is required with a mast it must be according to the engineer's design. Corners of the slab must be chamfered or rounded and curing measures must be undertaken.

4.3 **INSTALLATION**

Poles must be lifted one third from the top if using a single sling for handling and at one fifth from both ends when using a double sling. Poles must be handled with care. Poles must be planted upright with a tolerance as specified by the client using a theodolite at right angles.

In the case of jointed poles, joining must take place on an even surface and not attempted in the upright position. Bolts must be tightened and locked with lock nuts. The joint must be sealed with an approved epoxy afterwards.

The planting depth shall be calculated as follows: 10% of the length of the pole in question and an additional 600mm.

4.4 **SAFETY PRECAUTIONS**

Hardhats must be worn on site. All other safety equipment such as safety harnesses must also be incorporated. The public is not allowed on the site and the necessary methods must be undertaken to prevent their entry. In urban areas the necessary arrangement must be made with the local traffic department in the case where the road must be closed.

5. **TESTS**

Transverse strength tests as described in SABS 470 will be conducted on some poles to verify the structural capacity of the poles.

If required a torsional test (as described in the above-mentioned specification) could also be done.

6. **INFORMATION TO BE FURNISHED BY THE PURCHASER.**

The purchaser should provide the manufacturer with the following information when ordering poles:

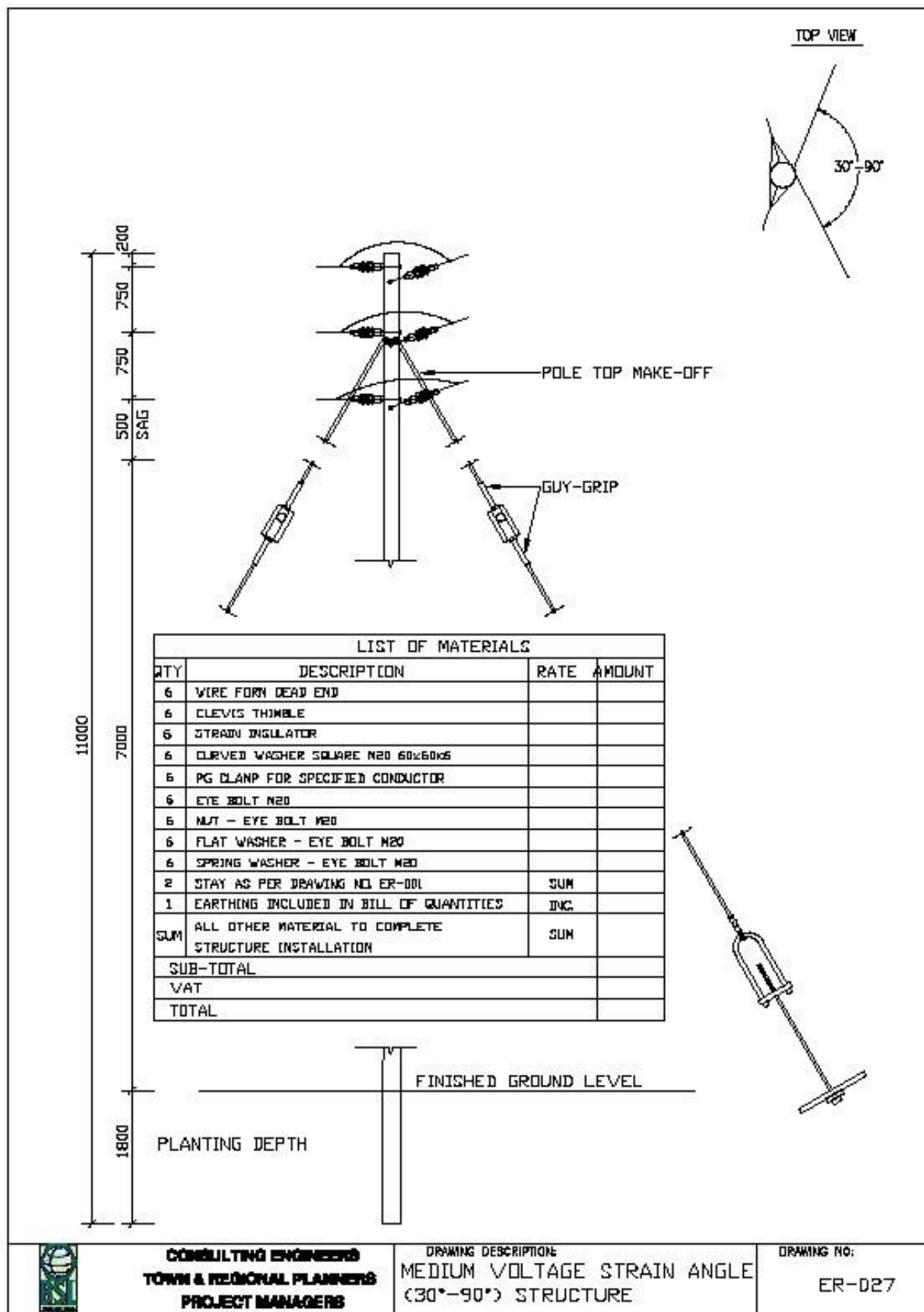
- a) Length;
- b) Strength requirements (i.e. working load and ultimate load);
- c) Torsional capacity (if required);
- d) Type of pole (reinforced or partially prestressed);
- e) Quantity;
- f) Provisions for attachments when required;
- g) Maximum deflection allowed under proof test load (when required);
- h) Locating of earthing terminal(s) or special earthing provisions;
- i) Climbing facilities (if required).

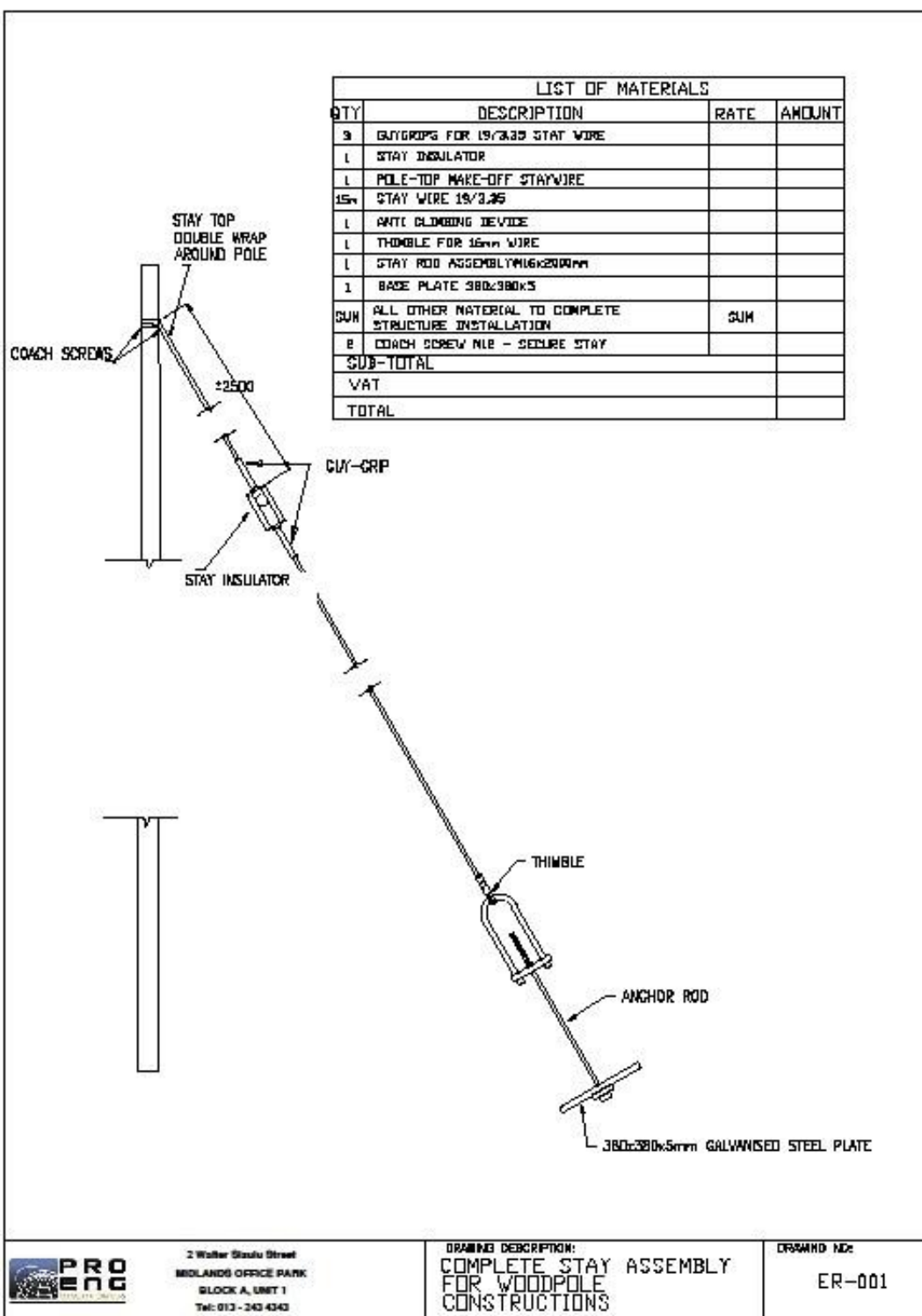
7. **ELECTRICAL REQUIREMENTS.**

All poles shall incorporate an internal earthing system. The reinforcing cage may be used as the major longitudinal element of the internal earthing system. The internal earthing system shall be electrically continuous throughout the length of the pole.

The earthing of the poles may be performed in various effective ways, two of which is described:

- a) The earthing connection shall provide adequate electrical contact to at least one steel reinforcing bar. This bar should be of adequate diameter and should be continuous or welded (not lapped) throughout the length of the pole and metallicly connected to all reinforcing rods.
- b) By providing two holes of suitable dimensions at suitable positions described in method (a) above.

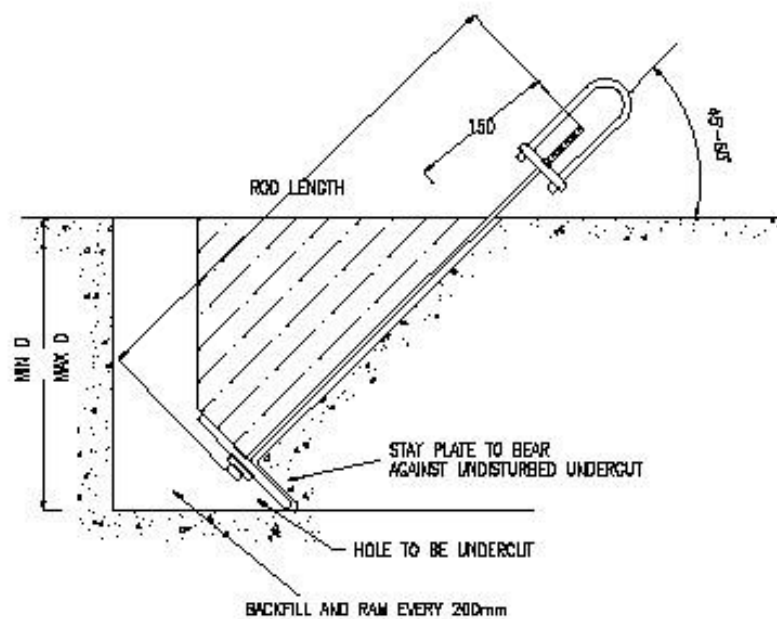




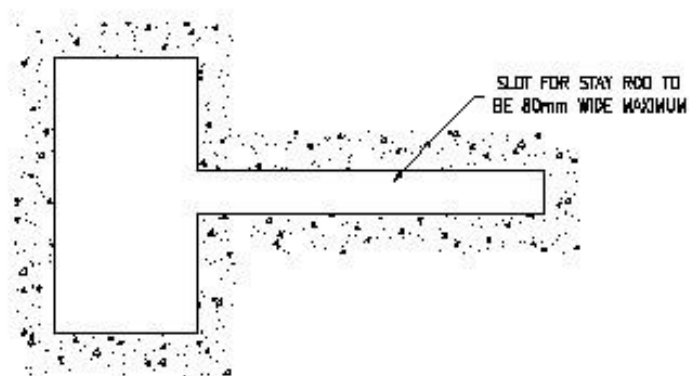
2 Walter Stasulu Street
MIDLANDS OFFICE PARK
BLOCK A, UNIT 1
Tel: 0121-242 4342

DRAWING DESCRIPTION:
COMPLETE STAY ASSEMBLY
FOR WOODPOLE
CONSTRUCTIONS

DRAWING NO:
ER-001



PLANTING DEPTH TABLE				
	ROD DIA	ROD LENGTH	MIN D	MAX D
FOR 8 meter POLES	16	2000	1450	1750
FOR 11 meter POLES	16	2000	1750	2150



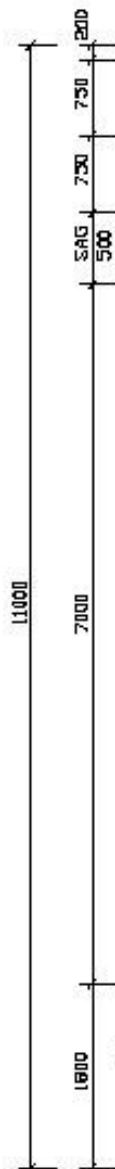
2 Walter Stasulo Street
MIDLANDS OFFICE PARK
BLOCK A, UNIT 1
Tel: 013 - 243 4343

DRAWING DESCRIPTION:

STAY ROD INSTALLATION

DRAWING NO:

ER-002



LIST OF MATERIALS			
QTY	DESCRIPTION	RATE	AMOUNT
3	CURVED WASHER SQUARE M20 60x60x6		
3	POST INSULATORS WITH SPINDLE 11KV - 23KV		
3	SPRING WASHERS FOR M20 SPINDLE		
3	SIDE TIE FOR SPECIFIED CONDUCTOR		
1	EARTHING INCLUDED IN BILL OF QUANTITIES	ENC	
SUM	ALL OTHER MATERIAL TO COMPLETE STRUCTURE INSTALLATION	SUM	
3	NUT - SPINDLE M20		
3	FLAT WASHER - SPINDLE M20		
3	SPRING WASHER - SPINDLE M20		
SUB-TOTAL			
VAT			
TOTAL			

PLANTING DEPTH

FINISHED GROUND LEVEL



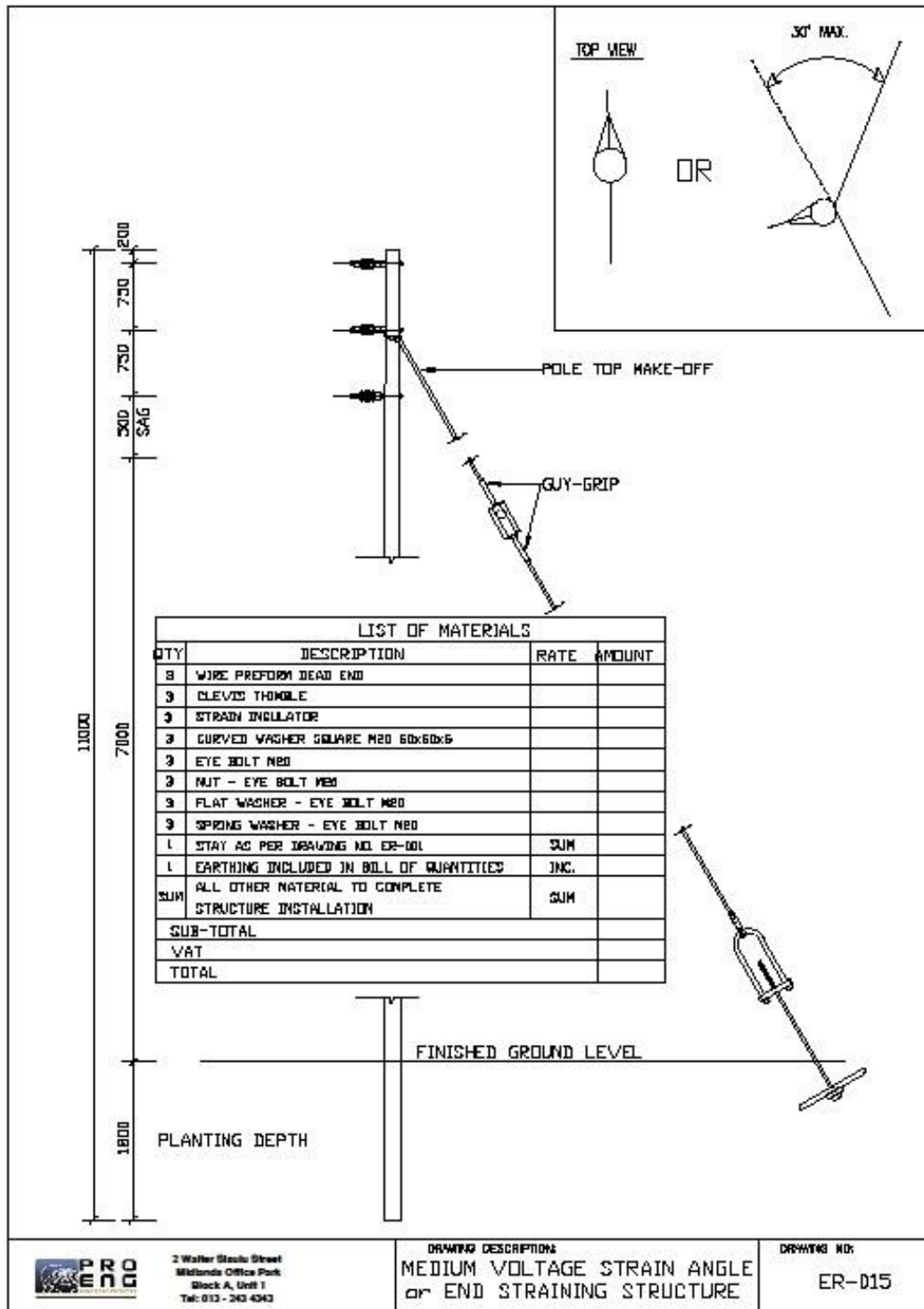
2 Waller Street
Midlands Office Park
Block A, Unit 1
Tel: 013 - 243 4343

DRAWING DESCRIPTION:

WOODEN POLE 11KV
INTERMEDIATE STRUCTURE

DRAWING NO:

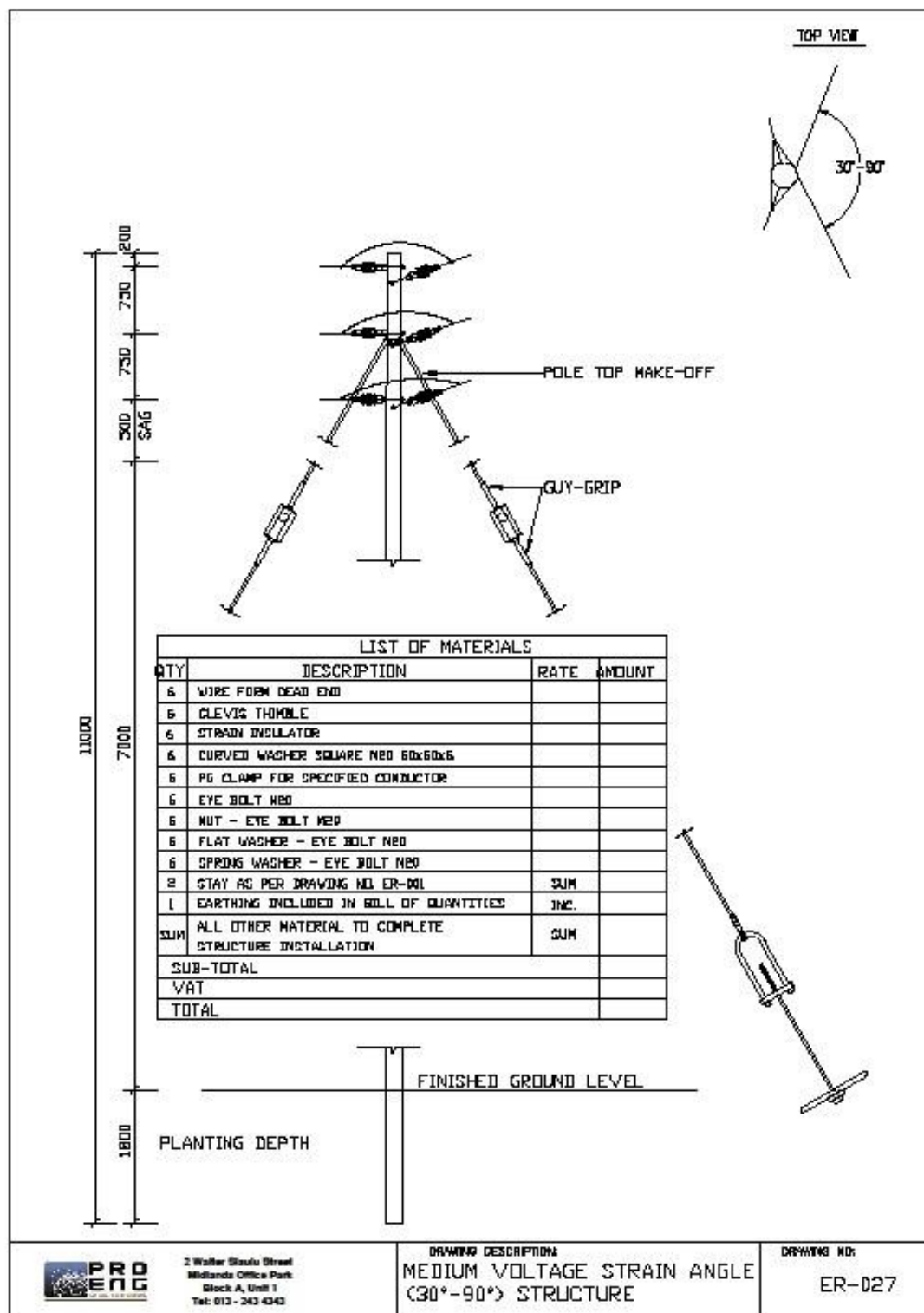
ER-014



2 Walter Steele Street
Midlands Office Park
Block A, Unit 1
Tel: 013 - 243 4343

DRAWING DESCRIPTION
MEDIUM VOLTAGE STRAIN ANGLE
or END STRAINING STRUCTURE

DRAWING NO:
ER-015



2 Walker Street
Midlands Office Park
Block A, Unit 1
Tel: 013 - 243 4343

DRAWING DESCRIPTION:
MEDIUM VOLTAGE STRAIN ANGLE
(30°-90°) STRUCTURE

DRAWING NO:
ER-027

Date: _____		Page: _____	
No.	Qty.	Particulars	
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Draxtonford Local Municipality
 100 Main St. Draxton, N.S.W.
 Phone: 0845 324 124 Fax: 0845 324 125
 0845 324 124 0845 324 125 0845 324 125
 0845 324 125
 Tel: 0845 324 125
 Fax: 0845 324 125
 Web: www.draxtonford.nsw.gov.au



Pro-Eng Consulting Engineers
 1, Ashby Road, 18, Ashby & Lane,
 Wellingborough, NN20 9BB
 Tel: 01933 3543 4043 | 0-20

<p>  文部科学省 教育部 </p>		
<p>  厚生労働省 衛生部 </p>	<p>  農林水産省 農林部 </p>	<p>  経済産業省 経済部 </p>
<p>  文部科学省 教育部 </p>	<p>  厚生労働省 衛生部 </p>	<p>  農林水産省 農林部 </p>
<p>  経済産業省 経済部 </p>	<p>  文部科学省 教育部 </p>	<p>  厚生労働省 衛生部 </p>

10-13-05	
Requested by	DR
Approved by	DR
Date	10-13-05

1-11	1-12
1-13	1-14
SCALE 1/4" = 1'-0"	



TEL: 010-260 40
FAX: 010-262 4000

132/11kV SUBSTATION
DUNHA PARK EXT. 2

GUHA PARK
132/11KV SUBSTATION
SIDE A

01_F132/11w 2/PA1-64

The diagram illustrates a typical cross-section of a transmission line tower. It features a central vertical axis with two main legs. At the top, there are two horizontal cross-arms, each supporting four insulator strings. Below these, there are two sets of smaller horizontal cross-arms, each supporting two insulator strings. The tower is supported by four concrete foundations. Dimensions are provided in feet: the total width at the base is 80.00; the distance between the inner legs is 24.00; the height of the tower is 100.00; and the height of the cross-arms is 10.00.

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[illegible]

132 / 11KV SUB TOP VIEW
Cable trench, earthmat and terrain lighting Dimentions

[illegible]

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- 121 ALL FURNISHING CLAUSE ON DRAWING & TENDER SHALL BE THE SAME.
- 122 TENDERS SHALL BE OPENED ON THE DATE ON WHICH THE TENDER INVITATION TENDERED.
- 123 ALL CONTRACTS MUST BE COMPLETED WITHIN SPECIFIC PERIODS STARTING FROM THE DATE OF SIGNING.
- 124 THE FINAL PAYMENT OF THE TIME WITHHOLDING IN THE SUBMISSION CONTRACT, SHALL BE IN ORDER IN TYPE OF CONTRACTS SUPPLIED.
- 125 SUBMITTER MUST BE OBLIGATED TO COMPLETE ALL IN PROJECTS FROM THE DATE OF FINAL PAYMENT OF THE
- 126 THE TIME AND MATERIALS CONTRACT SHALL BE COMPLETED WITHIN 12 MONTHS FROM THE DATE OF SIGNING.
- 127 PROVIDER SHALL BE IN ORDER TO SIGN THE PAYMENT OF BIDDING SHALL BE IN ORDER TO SIGN THE PAYMENT OF BIDDING.
- 128 ALL SUBMITTERS MUST BE OBLIGATED TO COMPLETE ALL IN PROJECTS FROM THE DATE OF FINAL PAYMENT OF THE
- 129 THE COMPLETE BIDDING SHALL BE OBLIGATED TO COMPLETE ALL IN PROJECTS FROM THE DATE OF FINAL PAYMENT OF THE
- 130 ALL SUBMITTERS MUST BE OBLIGATED TO COMPLETE ALL IN PROJECTS FROM THE DATE OF FINAL PAYMENT OF THE

[illegible]

SALES PERSONNEL		
NAME	REG. NO.	DATE
1. J. A. Smith	12345	10/1/78
2. B. C. Jones	23456	10/2/78
3. C. D. Brown	34567	10/3/78
4. D. E. White	45678	10/4/78
5. E. F. Black	56789	10/5/78
6. F. G. Green	67890	10/6/78
7. G. H. Blue	78901	10/7/78
8. H. I. Yellow	89012	10/8/78
9. I. J. Purple	90123	10/9/78
10. J. K. Red	01234	10/10/78
11. K. L. Orange	12345	10/11/78
12. L. M. Pink	23456	10/12/78
13. M. N. Grey	34567	10/13/78
14. N. O. Silver	45678	10/14/78
15. O. P. Gold	56789	10/15/78
16. P. Q. Bronze	67890	10/16/78
17. Q. R. Copper	78901	10/17/78
18. R. S. Iron	89012	10/18/78
19. S. T. Steel	90123	10/19/78
20. T. U. Aluminum	01234	10/20/78
21. U. V. Titanium	12345	10/21/78
22. V. W. Carbon	23456	10/22/78
23. W. X. Plastic	34567	10/23/78
24. X. Y. Rubber	45678	10/24/78
25. Y. Z. Glass	56789	10/25/78
26. Z. AA. Wood	67890	10/26/78
27. AA. BB. Paper	78901	10/27/78
28. BB. CC. Fabric	89012	10/28/78
29. CC. DD. Leather	90123	10/29/78
30. DD. EE. Metal	01234	10/30/78
31. EE. FF. Stone	12345	10/31/78
32. FF. GG. Clay	23456	11/1/78
33. GG. HH. Brick	34567	11/2/78
34. HH. II. Concrete	45678	11/3/78
35. II. JJ. Asphalt	56789	11/4/78
36. JJ. KK. Cement	67890	11/5/78
37. KK. LL. Gravel	78901	11/6/78
38. LL. MM. Sand	89012	11/7/78
39. MM. NN. Silt	90123	11/8/78
40. NN. OO. Mud	01234	11/9/78
41. OO. PP. Sludge	12345	11/10/78
42. PP. QQ. Goo	23456	11/11/78
43. QQ. RR. Tar	34567	11/12/78
44. RR. SS. Resin	45678	11/13/78
45. SS. TT. Glue	56789	11/14/78
46. TT. UU. Wax	67890	11/15/78
47. UU. VV. Oil	78901	11/16/78
48. VV. WW. Grease	89012	11/17/78
49. WW. XX. Lubricant	90123	11/18/78
50. XX. YY. Fuel	01234	11/19/78
51. YY. ZZ. Gasoline	12345	11/20/78
52. ZZ. AA. Diesel	23456	11/21/78
53. AA. BB. Kerosene	34567	11/22/78
54. BB. CC. Gas	45678	11/23/78
55. CC. DD. Vapor	56789	11/24/78
56. DD. EE. Smoke	67890	11/25/78
57. EE. FF. Dust	78901	11/26/78
58. FF. GG. Ash	89012	11/27/78
59. GG. HH. Soot	90123	11/28/78
60. HH. II. Charcoal	01234	11/29/78
61. II. JJ. Coal	12345	11/30/78
62. JJ. KK. Lignite	23456	12/1/78
63. KK. LL. Peat	34567	12/2/78
64. LL. MM. Torf	45678	12/3/78
65. MM. NN. Wood	56789	12/4/78
66. NN. OO. Bark	67890	12/5/78
67. OO. PP. Sawdust	78901	12/6/78
68. PP. QQ. Shavings	89012	12/7/78
69. QQ. RR. Chips	90123	12/8/78
70. RR. SS. Pellets	01234	12/9/78
71. SS. TT. Bricks	12345	12/10/78
72. TT. UU. Tiles	23456	12/11/78
73. UU. VV. Blocks	34567	12/12/78
74. VV. WW. Panels	45678	12/13/78
75. WW. XX. Boards	56789	12/14/78
76. XX. YY. Planks	67890	12/15/78
77. YY. ZZ. Lumber	78901	12/16/78
78. ZZ. AA. Timber	89012	12/17/78
79. AA. BB. Logs	90123	12/18/78
80. BB. CC. Stumps	01234	12/19/78
81. CC. DD. Branches	12345	12/20/78
82. DD. EE. Twigs	23456	12/21/78
83. EE. FF. Sticks	34567	12/22/78
84. FF. GG. Straws	45678	12/23/78
85. GG. HH. Hay	56789	12/24/78
86. HH. II. Straw	67890	12/25/78
87. II. JJ. Corn	78901	12/26/78
88. JJ. KK. Wheat	89012	1



FE Bus 2, Graduate C 101
FORD ADVANCED CARE, 40
MILWAUKEE & COUNCIL BLUFFS, ILLINOIS



Further Consulting Required
2000-2001
Tel: 1-877-546-4491 ext. 8

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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ANNEXURE J

GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if (applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

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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 the 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 any thing 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.

1.15 “Goods” means all of 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 those 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.

2. **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 conflict with these general conditions, the special conditions shall apply.

3. **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

4. **Standards** 4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.
5. **Use of** 5.1 The supplier shall not, without the purchaser's prior written consent, **contract** disclose the contract, or any provision thereof, or any specification, plan, **documents** drawing, pattern, sample, or information furnished by or on behalf of **and** the purchaser in connection therewith, to any person other than a person **information**; employed by the supplier in the performance of the contract. Disclosure **inspection.** to any such employed person shall be made in confidence and shall extend only so 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 5.1 except for purposes of performing the contract.
 - 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 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.
6. **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.
7. **Performance** 7.1 Within thirty (30) days of receipt of the notification of contract award, **security** 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.

8. 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 analyzed 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 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.

9. 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.

10. **Delivery** 10.1 Delivery of the goods shall be made by the supplier in accordance with **and documents** 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.

11. **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.

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

13. **Incidental** 13.1 The supplier may be required to provide any or all of the following **services** 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.

14. **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:

- (a) 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.

15. **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.
16. **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 fulfillment 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.
17. **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.
18. **Contract** 18.1 No variation in or modification of the terms of the contract shall be **amendments** made except by written amendment signed by the parties concerned.
19. **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.
20. **Subcontracts** 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts 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.

21. **Delays in the** 21.1 Delivery of the goods and performance of services shall be made by **supplier's** the supplier in accordance with the time schedule prescribed by the **performance** 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 canceling 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.

22. **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.

23. **Termination** 23.1 The purchaser, without prejudice to any other remedy for breach of **for default** 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

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.

24. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping 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

25. 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.

26. Termination 26.1 The purchaser may at any time terminate the contract by giving written **for insolvency** 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.

27. 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.

28.1 Except in cases of criminal negligence or willful misconduct, and in

28. Limitation of the case of infringement pursuant to Clause 6;

liability (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

(b) 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.

29.1 The contract shall be written in English. All correspondence and other

29. Governing documents pertaining to the contract that is exchanged by the parties
language shall also be written in English.

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

ANNEXURE F: EPWP, DMRE Schedule of EPWP, SMME, SWO



and BEE Energy Mineral Resources

ELECTRIFICATION PROGRAMME

INTEGRATED NATIONAL

TEMPLATE FOR REPORTING ON THE EPWP PROJECTS FOR 2023/2024 FINANCIAL YEAR

This questionnaire is designed to verify information on socio-economic Key Performance Indicators (KPI's) of Integrated National Electrification Programme (INEP) in Municipalities and Eskom per project. The information you provide will be used only for this purpose and will be treated in strict confidence.

SOCIO-ECONOMIC KPI's TARGETS

Temporary Employment	90% of the total number of people employed
Permanent Employment	10% of the total number of people employed
Youth Employment (18 to 35yrs)	50% of the total number of people employed
Women employment (36 yrs and above)	30% of the total number of people employed
Employment of people with special needs	2% of the total number of people employed
Men Employment (36 yrs and above)	18% of the total number of people employed

A worker may not be paid less than the Minimum EPWP wage rate of R92.31 per day. This will be adjusted annually.

1. Provinces Please tick X in the appropriate box	Eastern Cape	Free State	Gauteng	KwaZulu Natal	Limpopo
	Mpumalanga	Northern Cape	North West	Western Cape	

2. Implementing Agencies' Identification

Reporting month				
Responsible person			Contact	
Designation				
Municipality Name			Municipal code	
District Municipality Name				
Project Name				
Type of project	Electrification of Households	Bulk Infrastructure	Electrification of School	Farm-Worker Houses
Approved Project budget				

Project start date		Project end date		
Type of Municipal Area	Metropolitan	District	Local	
Area were project is located	Rural	Urban Formal	Urban Informal	Farm

Official Stamp

Municipal Manager /
Divisional Capital Programme Manager
Date: _____

INTEGRATED NATIONAL ELECTRIFICATION PROGRAMME

3. Financial Expenditure to date			
How much is the allocated project budget? - (as per contractual agreement)			
How much money have you received from the Department of Energy? (transferred R _____ capital)			
How much is the actual expenditure?			R _____
How much went to the following?	BBBEE	BWO	SMME
	R _____	R _____	R _____
How much is the minimum daily wage for people employed in projects?			R _____
Total number of person-days at work?			

4. Company Profile.			
How many Black Economic Empowerment (BEE) companies were utilised?			
How many of this BEE companies are Black Women Owned (BWO)?			
How many Small Micro-medium Enterprises (SMME) companies were utilised?			

How many of the SMMEs are Black Women Owned companies (BWO)?

5. Local People Employment Distribution.				Youth(18-35yrs)		Adults(36yrs+)		
				Male	Female	Men	Women	
How many people are employed permanently?								
How many people are employed temporarily?								
How many people with special needs (disabled)?								
How many youth are employed according to the following age range?	18-22yrs		23-27yrs		28-32yrs		33-35yrs	
	male	female	male	female	male	female	male	female

6. Learnerships	Youth(18-35yrs)		Adults(36yrs+)	
	Male	Female	Men	Women

How many people received learnerships from the project?				
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7. Job Training	Youth (18-35) yrs		Adult (36 yrs+)		People with special needs	
	Male	Female	Male	Female	Youth	Adults
How many people received accredited training?						
How many people received non-accredited training?						
How many person-days of accredited training received?						
How many person-days of non-accredited training received?						

8. Were there any challenges associated with the collection of EPWP/socio economic indicators information? (If yes, please indicate)

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INTEGRATED NATIONAL ELECTRIFICATION PROGRAMME

9. Information regarding the companies that were utilised to implement the construction project.

[illegible]

INTEGRATED NATIONAL ELECTRIFICATION PROGRAMME

10. EXTENDED PUBLIC WORKS PROGRAMME (EPWP)

Please provide the following information for people that were employed on labour intensive project (EPWP)

Name of employee	ID Number	Gender	Number of days worked in a month	Daily Wage R'	Number of training days		Name of training course	Employees Signature
					Accredited	Non-accredited		
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
17.								
19.								