

	Scope of Work	Grootvlei
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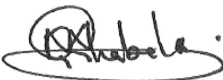
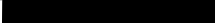
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CONTENTS	PAGE
1. INTRODUCTION	3
2. SUPPORTING CLAUSES	3
2.1 SCOPE	3
2.1.1 Purpose	3
2.1.2 Applicability	3
2.2 NORMATIVE/INFORMATIVE REFERENCES	3
2.2.1 Normative	3
2.2.2 Informative	4
2.3 DEFINITIONS	4
2.3.1 Disclosure Classification	4
2.4 ABBREVIATIONS	4
2.5 ROLES AND RESPONSIBILITIES	5
2.6 PROCESS FOR MONITORING	5
2.7 RELATED/SUPPORTING DOCUMENTS	5
3. SPECIFICATION AND DESCRIPTION OF THE SERVICES: SCOPE OF <i>WORKS</i>	5
4. SUBMITALS	7
5. AUTHORISATION	7
6. REVISIONS	7
7. DEVELOPMENT TEAM	7
8. ACKNOWLEDGEMENT	7

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1. INTRODUCTION

According to the Occupational Health and Safety Act 85 of 1993, the owner of infrastructure has duty to ensure that Civil Structures remain serviceable throughout their occupancy and utilisation. This is ensured by carrying out annual statutory inspections and regular inspections to determine the condition and state any remedial works which may be required.

Furthermore, immediate design changes may be required on existing structures to meet new structural demands. To ensure this is done, a professional engineering team must be available on an as and when required basis.

During scope or project execution, it is necessary for construction supervision to be conducted by a Professional Civil Engineer. This contract will therefore also incorporate the provision of this service.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document provides the Scope of Work for professional services related to the Management of Civil Structures at Grootvlei Power Station.

2.1.1 Purpose

To indicate the scope of work to be executed by the successful bidder for the Management of Civil Structures at Grootvlei Power Station. The scope includes conducting investigations designs and developing technical specifications required for Civil Engineering related work at Grootvlei Power Station.

2.1.2 Applicability

This document shall apply to Grootvlei Power Station Auxiliary Engineering.

2.2 NORMATIVE/INFORMATIVE REFERENCES

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

All applicable SANS (South African National Standards) are to be used. Where no SANS Standards exists, other pre-approved international codes/ design guidelines may be used.

2.2.1 Normative

- [1] 240-107981296 Constructability Assessment Guideline
- [2] 240-55864504 Belt Conveyor Structural Steelwork and Welding Specification
- [3] 240-77801161 Inspection of Boiler Structural Supports – Conventional Fossil Fuel Fired Power Stations
- [4] 240-56364535 Architectural Design and Green Building Compliance Standard
- [5] 240-56364537 Design of Steel Structures Standard
- [6] 240-56364545 Structural Design and Engineering Standard
- [7] 240-144332407 Standard for Eskom Power Stations Concrete Remedial Work

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- [8] 240-144576061 Structural Design CoE Work Instruction
- [9] 240-144590786 Geotechnical Engineering CoE Works Instruction
- [10] 240-57127955 Geotechnical and Foundation Design Standard
- [11] 240-98349953 Check sheet for Geotechnical Investigations
- [12] 240-53114002 Engineering Change Management Procedure
- [13] 240-144574575 Road and Railway Design Works Instruction
- [14] 240-84418186 Road Specification Manual
- [15] 240-85549846 Standard for design of Drainage and Sewerage Infrastructure
- [16] 240-142483465 Guidelines on Maintenance and Rehabilitation of Roads
- [17] ISO 9001 Quality Management Systems.
- [18] Eskom Health, Environment and Quality (SHEQ) Policy 32-727

2.2.2 Informative

- [19] 240-99527377 Inspection manual for Civil Works at Eskom's Power Stations
- [20] 240-53113685 Design Review Procedure
- [21] 240-53113953 Manage Engineering Accountability Procedure
- [22] 240-53114026 Project Engineering Change Management Procedure
- [23] 240-85549846 Standard for design of Drainage and Sewerage Infrastructure

2.3 DEFINITIONS

N/A

2.3.1 Disclosure Classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 ABBREVIATIONS

Abbreviation	Description
BOQ	Bill of Quantities
CAD	Computer Aided Drawing
DEA	Department of Environmental Affairs
ECSA	Engineering Council of South Africa
GPR	Ground Penetration Radar
Gx	Generation
NEC	New Engineering Contract
OHS	Occupational Health and Safety
SANS	South African National Standards
SoW	Scope of Work
WGS	World Geodetic system

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Abbreviation	Description
QC	Quality Control
QCP	Quality Control Plan

2.5 ROLES AND RESPONSIBILITIES

Auxiliary (Civil) Engineering will be responsible for technically evaluating the bidders in accordance with the scope of work.

2.6 PROCESS FOR MONITORING

The execution of the works will be monitored by the Design Review Procedure.

2.7 RELATED/SUPPORTING DOCUMENTS

None

3. SPECIFICATION AND DESCRIPTION OF THE SERVICES: SCOPE OF *WORKS*

The *Employer* (Eskom) contracts with the *Consultant* for a period of 3 years to take the professional responsibility for Civil Structures at Grootvlei Power Station. The *Consultant* shall provide professional engineering services including, but not limited to, providing design solutions for all infrastructure across the station where required and support the *Employer's* drive in sustaining and improving the performance and life expectancy of the *Employer's* assets. Furthermore, the *Consultant* is to carry out all scheduled inspections as recommended by the *Employer* in line with the recommendations of the Occupational Health and Safety Act 85 of 1993.

The *Consultant* is to assist an Eskom appointed *Employer's Agent* to ensure that the *Contractors* comply with their respective contracts and no unnecessary compensation events are incurred by the *Employer* during the execution of construction projects for the designs completed by the *Consultant*.

- The *Consultant* conducts investigations and inspections on the Power Station infrastructure with the *Employers* representative as scheduled in the Civil and Structures Maintenance Strategy for Grootvlei Power Station. Upon completion, the consultant submits a detailed report highlighting the condition of the asset inspected with recommendations for remedial works.

The items to be inspected on a yearly basis are the following:

- Boiler House (Steel structure, 18 000m², 5 levels, maximum height = 60m), including internal buildings.
- Turbine House (Steel structure, 9900m², 2 levels, maximum height = 30m), including internal buildings and offices.
- Precipitator Structures
- North and South Smoke Stack including platform
- East and West Coal Staithes
- All Conveyor structures (7 x interdependent structures)
- Cooling Towers 1-6 with all associated infrastructure (including ponds, drift eliminator structures, inlet and outlet structures) (5 x towers)
- Water Treatment Plant Structures (building, clarifiers x 2, flocculation tank)
- Effluent Plant Structures
- Reverse Osmosis Plant (including 2 x clarifiers and 1 x clear water tank)

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- 2x Stores building and yards (1600m² and 4600m²)
 - Hazardous waste yard with associated infrastructure (drains, sumps etc.)
 - Electrical and Mechanical Workshop (2600m²)
 - Boiler Makers Workshop (950m²)
 - Main Building (3 levels with flat roof, 800m² plan area)
 - Security Building and traffic entrance covering structure
 - Intake House at Vaal Dam
 - High lift Pump House at Vaal Dam
 - Vaal Dam Clarifiers
 - Station Roads (5km)
 - Entire drainage system including storm water catchments and channels, manholes, sumps, and culverts
 - Lower Ash Water Return Dam Pumphouse
 - Cooling Water (CW) Pumphouse
 - Weighbridges (2 x Incoming and 2 x Outgoing)
 - Rail Inloading Structure
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- The *Consultant* together with the *Employers* representative conducts civil and structural engineering investigations, concept designs and detailed designs. A design report with all design calculations, a bill of quantities and works information for all problems brought forward by the *Employer* in respect of the Power Station's requirements and where necessary are to be provided for approval by The Employer through his/her processes.
 - The *Consultant* shall ensure that the execution of repair works within the power plant is planned such that safety of all personnel is not compromised. He/She shall advise where tasks shall be carried out only when the units are offline and assist the *Employers Agent* plan accordingly.
 - The *Consultant* shall identify and provide mitigation measures for risks associated with the infrastructure on site including all structures.
 - The *Consultant* shall assist an Eskom appointed *Employer's Agent* to ensure that all Civil Engineering contracts are carried out to comply with the specifications, procedures, relevant standards, good maintenance practices and quality in accordance with the requirements of the specific contract.
 - The *Consultant* shall identify all waste-full and unsafe practices and co-ordinate and implement cost saving suggestions with the *Employer's Agent*.
 - The *Consultant* shall advise the *Employer* of any changes in government regulation and legislation with regards to all Civil Infrastructural requirements as listed in this contract.
 - The *Consultant* is to assist any Candidate Engineers of the *Employer* to work towards ECSA Professional Registration within the contract period. Training is to be completed through problem solving of all issues solved during the contract period where the engineer may be required to be seconded to the facilities of the *Consultant* for a period.
 - All documents developed during the period of this contract relating to Grootvlei Power Station will belong to the *Employer*.

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Qualifications:

The *Consultant* provides to the *Employer* with his tender an Organogram for all the works to be provided above. The Organogram shall include personnel with the following qualifications as minimum:

- Professionally Registered Structural Engineer as a Lead Engineer (minimum 5 years' experience post professional registration).
- A Civil Engineer/Civil Engineering Technologist with at least 2 years of experience as an engineering practitioner.

Confidentiality and Intellectual Property Rights

- In terms of this contract any information or data supplied by either party arising out of this contract or from the performance of the services in terms of this contract, shall be treated in the strictest confidential.
- The *Consultant* shall, at the *Employer's* request at any time, and in any event upon the termination of this contract, return to the *Employer* any documents and any other material obtained from the *Employer* or generated on his behalf during the term of the contract.

4. SUBMITALS

- The bidder shall refer to the technical evaluation criteria provided with the tender document for documents to be submitted for this tender.

5. AUTHORISATION

Name	Designation
██████████	Auxiliary Engineering Manager
██████████	Engineering Manager
██████████	Document Controller

6. REVISIONS

Date	Rev.	Compiler	Remarks
February 2026	1	MT Taje	Final document

7. DEVELOPMENT TEAM

The following people were involved in the development of this document:

- ██████████

8. ACKNOWLEDGEMENT

- ██████████

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