

CAPEX CIVILS - NEW BARRIER WALLS AT NEW R&F, COOLING TOWER CONTAINMENT, PIPE SUPPORT AT OLD COOLING TOWER AND NEW SILT TRAP AT EFFLUENT SUMP

Tender no: RFP- -25/26

Cost Code:

Revision¹: 0.2 see legend at bottom of page

Revised date: 29/05/2025

NAME	TITLE	Empl. no	SIGNATURE	DATE
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COMPILED - RECOMMENDATION

COMPREHENSION AND ACCEPTANCE BY CLIENT

The Client warrants that he/she reviewed the Scope of Works and that this Tender and related document and that the Scope of Works comply to Production requirements and the outcome of the work as agreed between parties.

Comments:

APPROVAL TO PROCEED

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¹ Revision Legend:

0.n = Draft,

1= Final version

Thus first draft = 0.1, second draft = 0.2, etc, and final approved = 1.0

Should the final be revised for whatever reason the revision would be 1.1 etc.



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Definitions:

For the purpose of this document the following definitions/abbreviations will apply: ~

Foskor - Shall only mean and refer to Foskor (Pty) Ltd.

Tenderer - Shall mean a business company, organization or person who undertakes to conduct such works as described in the Scope of Work section of this document and as submitted by means of return Tender.

Contractor - Shall mean a business company, organization or person who undertakes to conduct such works as described in the Scope of Work section of this document. Unless otherwise specified, the Tenderer and the Contractor will be deemed to be one and the same.

He/His/Himself - Shall also refer to the opposite gender as well or a company of individuals or combination of persons of different genders as applicable to the Tenderer.



Section A: INVITE AND TENDER INSTRUCTIONS

A.1 Invitation to Tender

A.1.1 Tenderers are invited to submit a Tender in accordance with this Tender Document.

The Works consists of the **Capex Civils - New Barrier Walls at New R&F, Cooling Tower Containment, Pipe Support at Old Cooling Tower and New Silt Trap at Effluent Sump.**

The Tender Instructions are to be found in **Section A.**

The Contract Works Forms of Tender is stipulated in **Section B.**

The detailed Scope of Work and Specifications are to be found in **Section C.**

The Conditions of Contract are stipulated by **Foskor (Pty) Ltd, Procurement Department.**

A.1.2 At the time of tendering, any queries and/or doubts within the scope, specifications or drawings shall be referred to:

Designation	Buyer: Tenders and Contracts
For the attention of	Mphumeleli Ngqulunga
Telephone	035 902 3115
Fax	
Cell no	
Email	PhumeN@foskor.co.za

A.2 Return of Tender Documents

A.2.1 One copy of this document, duly completed and signed by the Tenderer, shall be delivered in a plain sealed envelope, distinctly marked as follows:

TENDER		
TENDER No.	RFP- -25/26	
Contract Title:	Capex Civils - New Barrier Walls at New R&F, Cooling Tower Containment, Pipe Support at Old Cooling Tower and New Silt Trap at Effluent Sump.	The Manager Procurement FOSKOR LIMITED 21 John Ross Parkway Richards Bay
Closing date & time:		

A.2.2 Tenders shall be placed in the **Tender Box at Foskor Richards Bay Main Administration Reception** no later than **12h00 noon** on the closing date

A.2.3 A tender sent by fax shall not be accepted.

- In case of Tenderers not being local, and not being in a position to hand deliver Tender documents to the above-mentioned location, Tenderers may use an approved document courier for the



purpose of delivering the Tender document to Foskor (Pty) Ltd. This would be subject to auditable proof of dispatch from the Courier Company (including time and date of dispatch).

- Such proof shall be faxed and confirmed as addressed to Superintendent: Tenders and Contracts, FOSKOR (PTY) LTD, 21 John Ross Parkway, Richards Bay, facsimile number as indicated under item A.1.3 before the closing time and date of the Tender.
- Foskor shall take no responsibility for lost courier documents – prior to opening of tenders - and onus rests on Tenderer to keep duplicate of Tender Submission.
- In this case the sealed envelope shall remain addressed as per paragraph A.2.1, and shall be placed in a sealed courier bag with the following street address delivery instructions:

FOSKOR (PTY) LIMITED - (TENDER BOX)
21 John Ross Parkway
Richards Bay
3900

- A.2.4 Tenders will not be opened in public and under no circumstances will the price(s) at which any Contract was awarded be divulged to any person.
- A.2.5 In the event that the Tenderer did not submit a Tender or if his Tender was unsuccessful, the Tenderer shall return the Enquiry Document and Drawings within **14 days** to the **Superintendent: Tenders and Contracts**.

A.3 Site Inspection

An official Site inspection shall be held at the **Foskor, Richards Bay** site in order for the Tenderer to fully acquaint himself with prevailing site and works conditions. In so doing you are to ensure that you fully understand the context and extent of the works (refer B.5 – Site Inspection Certificate).

Date of Site Visit

Time of Site Visit

Meeting Venue

From: To :

Report at Main Security Entrance

Please wear the following protective clothing:

Overalls (Acid Proof),
Hard Hat
Safety Shoes
Safety Glasses
Hearing protection
Gloves

YES

YES

YES

YES

YES

YES

IMPORTANT

- Please note that a Safety Induction is **MANDATORY** and all Tenderers to allow for at least **30 minutes** before the Site Meeting start, to complete the induction.
- The Site Visit / Inspection are **COMPULSORY**.



A.4 Examination and Completion of Documents

- A.4.1 The Tenderer shall examine all documents forming part of the Tender and submit his tender accordingly. All drawings, addendums, annexures received with the Tender documents must be returned with your company stamp and/or signature, as a comprehensive part of your Tender Submission. Failure to do so may result in disqualification from tender.

Tender in accordance with this format and submit documents as specified below.

- A.4.2 The Sections of this document shall not be separated in any way nor shall any pages be detached therefrom.
- A.4.3 The Tenderers submission is to include all Financial and Contractual detail and be signed (by authorized person) and/or company-stamped together with tender submission.
- A.4.3.1 Schedule of rates of Costs in detailed Breakdown or Labour Rates for the Works or Breakdown per Bill of Quantities
 - A.4.3.2 Initial Project Program of Works, Work Methodology, and Cash Flow (structured similarly to payment terms)
 - A.4.3.3 Schedule of Key Personnel on the Project
 - A.4.3.4 Schedule of Similar Contracts Undertaken
 - A.4.3.5 Site Inspection Certificate – signed by Tenderer as proof of attendance

A.5 Contract Documents Priority

The eventual Contract shall comprise the documents as stated in this tender document, your Tender submission by which you agree and the Foskor (Pty) Ltd Terms and Conditions, which shall be interpreted in accordance with the order of priority stated in the said Conditions.

A.6 Alterations by Tenderer

- A.6.1 Should the Tenderer propose any departures or modifications from the Conditions of Contract, Specifications, or to qualify his Tender in any way, he/she shall set out his/her proposals clearly in the covering letter attached to this Tender with reference to the particular section of the document, failing which the Tender will be deemed to be unqualified. Any proposed technical departures from Foskor (Pty) Ltd.'s Requirements or Specifications shall only be considered if submitted in writing together with a detailed motivation for such departures.
- A.6.2 The Tenderer shall include in respect of each proposed alteration the following:
- a) Reason for proposed exception;
 - b) Suggested re-wording;
 - c) Any effect on the Tender price;
 - c) Any effect on the execution of the scope of supply;
 - d) Any effect on Foskor's overall program objectives.

If any of the above information is not supplied, the Tender may be regarded as non-compliant.



A.7 General

- A.7.1 Foskor (Pty) Ltd reserves the right to adjust arithmetical or obvious errors in the Tender. Such adjustments made by Foskor (Pty) Ltd will be communicated to the Tenderer prior to the acceptance of his Tender.
- A.7.2 The Tenderer (whether his Tender is accepted or not) shall treat the details of the Tender as private and confidential and no copies shall be made thereof without the permission of Foskor (Pty) Ltd.
- A.7.3 Foskor (Pty) Ltd is not bound to accept the lowest or any other Tender it may receive, nor to assign a reason for the rejection or acceptance of any Tender, and Foskor (Pty) Ltd has the right, after Tenders are opened, and before a Contract is awarded, to enter into negotiations and discussions with one or more Tenderers short-listed on a price, program or technical basis, with a view to the clarification, improvement or amendment of any particular Tender.
- A.7.4 All Tenderers Tender at their own risk and Foskor (Pty) Ltd is not bound to accept any Tender and under no circumstances whatsoever will be responsible for any costs incurred by any Tenderer in compiling or submitting the Tender.
- A.7.5 Furthermore, Foskor reserves the right to accept only a part of the Tender, with due communication and agreement of the Tenderer.
- A.7.6 The Tenderer is required to submit a 'bona fide' Tender, intended to be competitive and not to fix or adjust the amount of the Tender by or under or in accordance with any agreement or arrangement with any third party. The Tenderer is also obliged to ensure that it has not and will not at any time before the hour and date for the lodging of this Tender do any of the following acts:
- a) Communicate to any person the amount or approximate amount of the proposed Tender except where the disclosure, in confidence, of the amount of this Tender was necessary for the preparation of the Tender.
 - b) Enter into any agreement or arrangement with any third party that shall disqualify from or that Foskor shall refrain from using.



Section B: FORMS OF TENDER TO BE SUBMITTED

B.1 Schedule of Rates or Summary of Bill of Quantities

	From Bill of Quantities – if applicable or →	qty	x rate =	ZAR	
1.0	SUB TOTALS:				
1.00	PRELIMINARY AND GENERAL				A1
1.02	INEW BARRIER WALLS @ NEW R&F PLANT VACUUM FLOOR				A2
1.03	COOLING TOWER CONTAINMENT				
1.04	PIPE SUPPORT REPLACEMENT @ OLD COOLING TOWER				
1.05	NEW SILT TRAP @ EFFLUENT SUMP				
	ADD 10% CONTINGENCIES				
	Sub Totals Sum (Excluding VAT)				A3
2.0	Add: VAT	15%			D
3.0	Total Tender Sum (Including VAT)				A4

B1.1 In the event of their being any obvious errors of pricing, extensions or additions in the priced Schedule of Quantities attached, we agree to their being corrected, and the contract amount altered accordingly.

B1.2 We further undertake that this tender cannot be withdrawn or retracted for **90** (ninety) days from the closing date.

B1.3 Notwithstanding that, this tender is submitted by invitation, it is clearly understood and agreed that there is no obligation upon Foskor to accept the lowest or any tender.

B1.4 The tendered prices are fixed and firm for the duration of the contract, and unless otherwise agreed to in writing a **10% Retention** (*held for 12 months, unless otherwise specified*) shall be deducted on all payments made for the Liability Period as defined in B.2. This clause also refers to 'Handover' as specified in **B 2.1**

WE AGREE TO A 10% RETENTION and 12 MONTHS DEFECTS-LIABILITY RETENTION PERIOD.

B1.5 Unless or until a formal agreement is prepared and signed, this tender, shall serve as your written acceptance and constitute a binding contract between Foskor and Yourself.

Amount In Words:

Signed aton.....

Signature
For and on behalf of the Tenderer (duly authorized)

.....
Company Stamp



B.2 Initial Project Program of Works, Work Methodology and Cash Flow

(This is a workable schedule and the Contractor is in no way obligated to these dates. An obligatory final programme will only be required once the tender is awarded)

Commencement Date (Guide: 6 weeks from tender close date)

Within 7 days from receipt of Purchase order.

Snagging/Modification List Date

20 Weeks after starting date of work described under this tender.

Completion of Works/ Final Handover (Guide: Project duration)

24 weeks after starting date of work described under this tender.

The Tenderer will be required to work

18h00 to 06h00, 7 days a week (Night shift Only)

X

(select one of these options)

06h00 to 18h00, 5 days a week and every second weekend

24 hours, Weekend (shift system)

Defects Liability Period Applicable (Start from Project handover)

12 months

Retention :

10%

TO BE SUBMITTED WITH THIS TENDER

The Tenderer shall submit with this Tender:

- 1 Initial program (Bar Chart/Gantt Chart).
- 2 Quality Control Plan.
- 3 Record of previous similar contracts undertaken.
- 4 Signed site inspection certificate.
- 5 Safety officer with SACPCMP Registration
- 6 Minimum CIDB 3CE



OTHER IMPORTANT NOTES

- **'Defects Liability Period'** shall be that period in force for Foskop to call upon the Contractor/Consultant to rectify at no cost to Foskop (Pty) Ltd any defects of workmanship, quality or practice; and shall remain in force **in parallel with the Warranty Period** and any other duration agreed to.
- The Tenderer is to list and motivate any deviations in terms of Project Program and/or time allowed and this is subject to approval by the Foskop (Pty) Ltd Engineer.
- It would be expected, in the event of critical work and/or work behind programme/schedule, should such be attributable to the Contractor, to make up the time and work and complete the work at no cost to Foskop (Pty) Ltd.
- The Tenderer shall, within **7 (seven)** days of contract, award submit a final detailed work methodology and program, and the final work methodology shall be verified and approved by Foskop (Pty) Ltd.
- The Tenderer is welcome to propose alternatives work methodology or approach to work, that may be of mutual benefit. This would be submitted in the form of an Alternative (clearly marked), however the Tenderer is **still to submit a Tender in the form specified** in this tender.
- The Tenderer shall submit a Work Breakdown Structure (WBS) and compile a programme (use MS Projects or MS Excel to compile the Project Program).
- If the Tenderer is partially or wholly responsible for the design or design drawings according to which construction is specified, any corrections to design/design drawings shall remain for the Tenderers account for a period of 6 months (or as otherwise agreed) after project completion. This is to ensure that poor design or inaccuracy of designs is rectified at no cost to Foskop.

B.2.1 Project Completion and Handover; Warranty

Unless otherwise agreed, Project Completion (handover), shall be deemed to be from date of Foskop issuing a Project Complete/Handover Certificate to the Contractor. This should be expected to be received within seven (7) days from date of receipt by Foskop of the complete Data Pack in its acceptably certifiable form (refer Section C of this document, **Quality Control**). Once the project has reached completion as defined by this scope, onus rests on the Tenderer to request from Foskop a Project Complete/Handover Certificate, which receipt shall define and signify the commencement of Retention Period (if applicable).

B.2.2 Initial Program to be Submitted

The interim and final project completion dates, as indicated in the above table should be used as a guideline for the Tenderer to compile the detail project schedule.

After the contract agreement is accepted (by signature of an agreement or acceptance of a Purchase Order) the dates shall be fixed and shall be applicable to the penalty clause as per agreement.

ATTACH GANT CHART AND/OR BAR CHART TO THIS PAGE



B.2.3 Table with Milestones to be Submitted

Using the critical path items from the program compile related Milestone Dates. Thus, the items/actions/ activities to be met that is critical towards the completion of the project

B.3 Schedule of Key Personnel on the Project

The Tenderer shall:

1. Complete schedule B.6.1 below concerning the Key Personnel on the project, indicating also if the person is employed by the Tenderer, a sub-contractor or temporary employed person.
2. Submit a project organogram showing the relationships and authority.

Key Personnel	Name and Surname	Full/Part Time on site, off-site?	Employed, Sub-Contractor or Temp?	Years Related Experience
Site Manager/ Contracts Manager				
Health & Safety Officer				
Quality Assurance and Control				

These persons shall not be substituted without prior consultation with and approval from Foskor (Pty) Ltd.

Failure to submit this information at the time of Tender could lead to disqualification of the tender.



B.4 Schedule of Similar Contracts Undertaken

Please provide a list of work done on contract of which the Scope of Works that are similar to the one described in this document (or attach references)

[illegible]

B.5 Schedule of Labour Rates for the Works

The rates for labour indicated below shall be the Total Cost to the Company (Contractor). It shall include for all the Contractor's profits, overheads, wages, accommodation, travelling, subsistence and other costs relative to the employment by the Contractor of the personnel detailed, and for hand and portable electric or pneumatic tools and consumables normal to the trade of the respective personnel.

However, it will exclude indirect supervision as same are deemed to be included under the costs relating to the Conditions of Contract i.e. non-productive supervisors are deemed to be included in the rate.

The rates detailed herein shall **not** be subject to escalation.

The Contractor's rates per hour are based on a normal **9 hours per day**.

The application and use of these rates shall be at the sole discretion and subject to the prior approval of the Foskor designate representative.

Item No.	Category	Rate per Hour in Rands		
		Normal	Overtime	Sundays and PPH



B.6 Schedule of Equipment for the Works

The Contractor must list below all the items of major equipment, which he guarantees will be provided on site in perfect working order to complete the work. The lists of items of equipment shall provide the Contractor's warranty of ownership of such equipment unless specifically endorsed in this Annexure to the contrary as "hired" or "hire purchase equipment."

The rates for Equipment detailed below shall include all overheads, profits, and maintenance and running costs including the provision of drivers/operators where necessary.

Contractor's rates per day are based on **9 hours per day**.

The rates detailed herein shall not be subject to escalation. No payment in respect of standing time shall be paid for items of equipment not listed below.

This Schedule must be accurately completed. Phrases such as "adequate equipment will be provided" will not be accepted. The application and use of these rates shall be at the sole discretion and subject to the prior approval of the Engineer.

Item	Description	Rate/hr	Rate/Day	Standing Time/Hour



B.7 Site Inspection Certificate – To be signed by Tenderer

This is to **CERTIFY**, that we
(Name(s) in CAPITAL LETTERS) (Referred to on the Form as "We")

representing and being duly authorized by:

.....
(Name of Company and Address) (Referred to on the Form as "We")

1. Visited the SITE on (date);
2. Received the TENDER Documents (including all attachments and subsequent correspondence related to this tender);
3. Carefully examined the SITE and made ourselves familiar with all local conditions likely to influence the WORKS and the cost thereof;

We further CERTIFY that we are satisfied with the description of the WORKS and explanations given by Foskor (Pty) Ltd and that we fully understand the nature of this TENDER.

I/We are,

Yours faithfully

SIGNATURE: _____

ON BEHALF OF: _____

DATE: _____

AS WITNESS: _____

(FOSKOR Project Leader)



Section C: SCOPE OF WORKS

C.1. Background, Present Situation and Proposed Solution

C.1.1 Background

Foskor Richards Bay, Acid Division, is a chemical manufacturing plant that was first commissioned in 1976 for production of sulphuric acid, phosphoric acid, and mono-ammonia phosphate fertilizer. The factory is in Richards Bay, on the northern coastline of KwaZulu Natal.

Phosphate rock concentrate from the Mining Division is treated with sulphuric acid to form weak phosphoric acid in slurry form. This is then filtered to remove gypsum particles as a waste product. After filtration, concentrated high-grade phosphoric acid is produced by boiling off excess water.

C.1.2 Present Situation

Barrier Wall at vacuum floors at the Old Phosphoric concentration plant – Currently the byproduct/gypsum from the process carried out at the concentration plant overflow onto road No.3 and onto the stormwater drainage system, which in turn causes a blockage in the underground services which leads to constant flooding on the road during heavy rain seasons and unblocking of chocked of these services.

The concrete pipe support at the old Phosphoric cooling towers – The pipe support at the old Phosphoric cooling towers has broken off and a replacement is required.

Effluent sump pump area receives all the stormwater from the plant, the run-offs into the stormwater system contain silt which deposits in the Effluent pumps sump causing the sump to overflow during rainy seasons, and difficult to pump out the water into the dams.

Old cooling tower containment along Road No.26 - The stormwater runoff from road No.3 runs through road No.26 onto road No.1 causing a heavy and uncontrollable flow.

C.1.3 Proposed Solution: Reason for this Tender

It is proposed that Projects undertake the project of capex civils in the areas mentioned activities included in this process will as follows.

- Constructing Old Phos cooling Tower pipe support.
- Constructing v-drain and Speed bump at old cooling tower containment along Road No.26
- Extend the barrier wall at the vacuum floor
- Construct silt traps at effluent sump pumps



C.2. Legislation, Standards and Codes of Practice

Latest revisions or amendments of the listed codes and specification are applicable to this contract:

Number	Title / Description	Revision
COP6	Control Of Construction Work	Latest
Act 85 of 1993	Occupational Health and Safety (OHS Act)	Latest
S28 NEMA (1998)	Duty and care of environmental degradation	Latest
SANS 1200 A	GENERAL	Latest
SANS 1400	THE APPLICATION OF THE NATIONAL BUILDING REGULATIONS	Latest
SANS 1200 D	EARTHWORKS	Latest
SANS 1200 DA	EARTHWORKS (SMALL WORKS)	Latest
SANS 1200 DB	EARTHWORKS (PIPE TRENCHES)	Latest
SANS 1200 G	CONCRETE (STRUCTURAL)	Latest
SANS 1200 G	CONCRETE (STRUCTURAL)	Latest
SANS 1200 GA	CONCRETE (SMALL WORKS)	Latest
SANS 1200 LB	BEDDING (PIPES)	Latest
SANS 1200 LD	SEWERS	
SANS 1200 LE	STORMWATER DRAINAGE	Latest
SANS 1200 LG	PIPE JACKING	Latest
SANS 1200 M	ROADS GENERAL	Latest
SANS 1200 ME	SUBBASE	Latest
SANS 1200 MF	BASE	Latest
SANS 1200 MG	BITUMOUS SURFACE TREATMENT	Latest
SANS 1200 MJ	SEGMENTAL PAVING	Latest
SANS 1200 MK	KERBING AND CHANNELING	Latest



SANS 1200-MM	ANCILLARY ROADWORKS	Latest
SASTT-TS-TT2	SASTT TECHNICAL STANDARD TRENCHLESS	Latest
	CONSTRUCTION WORK: PART TT2: PIPE BURSTING	Latest

All work listed in this scope of work shall be completed in accordance with the specifications and codes as listed above. It is the responsibility of the Tenderer to be in possession of the latest standards and codes as listed above in the execution of this project.

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SANS) in Pretoria.



C.3. Foskor Specifications

All work listed in this scope of work shall be completed in accordance with the specifications listed below.

Those specifically applicable to this Tender is **marked with “YES”**, **however** it does not exclude other specification listed or implied, and it remains the Tenderer's responsibility to ensure that work execution and tender prepared is in line and meets the requirements of all standards indicated or not.

Number	Title / Description	Version	Applicable
OTHER STANDARDS on this Tender			
APPLICABLE FOSKOR SPECIFICATION on this Tender			
E003	Industrial Electrical Installations	Latest	
EC1	Installation, Testing and Commissioning of Electrical Equipment	Latest	
FC005	General Earth Works to Plant and Building	Latest	
FD001	Design Criteria for Structures	Latest	
FG001	General Requirements for Projects	Latest	Yes
FL001	Design & Fabrication Criteria for Ladders & Walkways	Latest	
FM001	General Mechanical Specification	Latest	
FM003	Welding of Fabricated Equipment	Latest	
FQ001	General Engineering Quality Requirements	Latest	
FS 001	Specification for the Fabrication & Erection of Structural Steel Work	Latest	
GM5	Pipe Standards Including Auxiliary Equipment	Latest	
GM6/COP9	Engineering Drawing and Document requirements	Latest	
GQ1	Quality Control Procedure for Contractors	Latest	Yes
GS1	Structural Steelwork and Plate Work Fabrication and Erection	Latest	
MC001	Corrosion Protection Colour Coding	Latest	
MC004	General Plant Painting Specification Low Temperature	Latest	
MC006	Repair/Touch-up of Damaged Steelwork	Latest	
MC009	General Plant Protection High Corrosive Areas	Latest	
SS-000000-C-006	General specification for concrete construction	Latest	
SS-000000-C-007	Concrete specification	Latest	
SS-000000-C-012	Grouting	Latest	
SS-000000-Q-001	General quality requirements	Latest	Yes
SS-000000-S-001	Fabrication and erection of structural steelwork	Latest	
DD-000000-C-001	Civil design criteria	Latest	
DD-000000-S-001	Structural design criteria	Latest	

It is the responsibility of the Tenderer to be in possession of the latest specifications as listed above or implied in the execution of this project.

The Contractor is referred to the Specification mentioned for full descriptions of materials and methods referred to in these Bills of Quantities/Lump Sum documents, insofar as they apply.

The Contractor is advised to study the referred to specification before pricing Bills of Quantities/Lump Sum documents.

No claim whatsoever will be allowed in respect of errors in pricing due to brevity of description of items in the Bills of Quantities/Lump Sum documents which are fully described when read in conjunction with the relevant Preambles and/or Specifications.

Suppliers of materials and the like, whose quality systems apply with one or more of the SABS/SANS ISO 9000 Series should be used whenever possible in the absence of a particular SABS/SANS Specification Standard Mark.

The Contractor is hereby informed that where SABS/SANS Specifications are referred to in these Bills of Quantities/Lump Sums documents and Specifications thereto, then ONLY the Specification of Work Clauses will apply. The method of measurement and payment clauses will NOT apply to this Contract.



C.4. Project Requirements

The main works is of Concrete bund floors and walls refurbishment requires the supply of all (including but not limited to):

- Materials;
- Specifications;
- Labour;
- Tools;
- Consumables;
- Transport;

The Contractor shall further ensure that all work is executed with a detailed quantity of work and/or design detail is provided and complies with the specifications as set out in this document.

C.5. Plant Data

All work listed in the document will be constructed for installation at the **FOSKOR RICHARDS BAY PLANT, 21 JOHN ROSS PARKWAY**

C.6. Drawings and/or Equipment Manuals

The following drawing, data and/or manuals remain the property of Foskor (Pty) Ltd and shall be returned to Foskor (Pty) Ltd on completion of the work.

Drawing No.	Title / Description	Revision
R24-004-00-700	General Notes	Rev.1
R24-004-00-701	Effluent sump, Construction of new silt trap, Plan and sections	Rev.1
R24-004-00-702	Effluent sump, Construction of new silt trap, Reinforcement layout and section	Rev.1
R24-004-00-703	New R&F Plant Vacuum Floor, New Barrier Walls	Rev.1
R24-004-00-704	Cooling Tower Containment, General Layout and Details	Rev.1
R24-004-00-705	Old Cooling Tower Pipe support replacement, Plan and Section	Rev.1

All work listed in this Scope of Work shall be completed in accordance with the latest copies of drawings/specifications as listed above. It is the responsibility of the Tenderer to ensure that the Tenderer has the latest copies of drawings/specifications as listed above for the execution of this project.

On completion of the project the Contractor must certify all documentation and drawings for correctness and conformance, specifying which standards and regulatory acts these conform to.



C.7 Scope of Work - General

The scope of work calls for a suitably competent contractor and includes for the following:

The Contractor to supply as per the complete Bill of Quantities submitted and which includes but not limited to site establishment, breaking contaminated breaking of existing concrete elements, construction of earthworks, construction of new structural elements per section as well as supplying all material required to carry out the refurbishment work. The supply of any equipment/material that is suggested by the Contractor must be approved by Foskor.

The contractor to provide with his tender method of Refurbishment and work program that will be within the provisioned quantities for repairs. The period of construction covers the handover to the successful supplier and the final completion of the repair work, including handover back to Foskor. No delays shall be entertained.

All specialized equipment/material shall be installed as per recommendation by the manufacturer of the supplied material/equipment. Any deviations from Manufacturer recommendations must be suitably justified.

All completed work will be inspected and approved by Foskor. The Contractor shall ensure that all 'acceptance approvals' are received from Foskor (Pty) Ltd before proceeding to the next stage.

After completion of repair work, the Contractor must allow for final inspection, passing & Handover of the project works with Foskor (Pty) Limited and the nominated Contractor.

The Work calls for the successful contractor as required by the scope of work.

The project to be undertaken in terms of the latest revisions and amendments of all relevant legislation, standards, and Codes of Practices. The Contractor will complete the Works in accordance with all statutory obligations, municipal regulations, and all other relevant requirements. The Contractor is specifically reminded of the requirements in terms of the Occupation Health and Safety Act, Act 85 of 1993 and latest amendments in terms of this project.

The design, selection, and supply of all equipment to be supplied by the Contractor shall be approved by Foskor.

All work carried out shall be in accordance with the Installation recommended or specified by the manufacturer of the supplied material.

C.7.1 Scope of Work - Extent

The Contractor understands and shall fully satisfy the scope of required services, as described in the tender **TENDER NO.** _____ handed out at the site inspection held on (date) _____, which is generalized as follows:

- Site establishment and removal of establishment on completion.
- Complying with relevant health and safety regulations.
- Execution, management, and supervision of contract.



C.7.1.1 C-Circulation Bund Floor Refurbishment

Supplier to submit work method for all the activities to be undertaken.

1. OLD PHOS COOLING TOWER PIPE SUPPORT

- a) Clear and clean area of construction.
- b) Barricading of surrounding area to ensure a safe working environment.
- c) Install temporary support to services.
- d) Demolish an existing area of the concrete wall and pipe support, without damaging reinforcement.
- e) Install new reinforcing.
- f) Shutter for casting of new wall and pipe support.
- g) Casting of new concrete.
- h) Casting of new concrete.

2. CASTING OF NEW CONCRETE V-DRAIN AND SPEED HUMP.

- a) Clean and clear construction area.
- b) Barricading of the surrounding area to ensure a safe working environment.
- c) Saw cut and demolish portion of road, paving and concrete surface bed.
- d) Excavate in all materials to levels as indicated on the Engineer's construction details.
- e) Compact the in-situ material to specified modified AASHTO density in preparation for the foundation Layerworks as instructed on the construction details.
- f) Import G5 quality material from commercial sources and compact in 150mm layers to modified AASHTO densities as instructed by the Engineer.
- g) Cast and finish concrete v-drain.
- h) Construct asphalt berm/ speedhump.
- i) Seal all joints as per details
- j) Casting of new concrete.

3. EXTEND THE BARRIER WALL AT THE VACUUM FLOOR.

- a) Clean and clear construction area
- b) Barricading of the surrounding area to ensure a safe working environment.
- c) Install temporary support to services.
- d) Saw cut and demolish a portion of concrete surface bed.
- e) Prepare the surface and install steel reinforcing dowels into existing concrete.
- f) Install new reinforcing.
- g) Shutter for the casting of new walls and berm.
- h) Casting of new concrete.
- i) Strip shuttering and cure concrete.
- j) Seal all joints as per details.



4. CONSTRUCT SILT TRAPS AT EFFLUENT SUMP PUMPS.

- a) Clean and clear construction area.
- b) Barricading of the surrounding area to ensure a safe working environment.
- c) Construct temporary pump sumps in outlet pipes.
- d) Over pump all inflow to pumps.
- e) Saw cut and demolish a portion of the concrete surface bed.
- f) Excavate in all materials to levels as indicated on the Engineer's construction details. Note that the water table is expected at approximately 1m depth. The Contractor should allow for working and in waterlogged conditions.
- g) Install lateral support where needed.
- h) Compact the in-situ material to specified modified AASHTO density in preparation for the layer works as instructed on the construction details.
- i) Install bidim layer.
- j) Import G5 quality material from commercial sources and compact in 150mm layer to modified AASHTO densities as instructed by the Engineer
- k) Shutter for the casting of new floor and walls.
- l) Installation of reinforcement, to specifications as provided by the Engineer.
- m) Cast concrete.
- n) Strip shuttering and cure concrete.
- o) Seal all joints as per details.
- p) Apply protective coating to concrete as specified by the engineer.
- q) Procure and install valve and pipework.
- r) Removal of all tools, rubble, debris etc.
- s) De-establishment from site.

C.7.1.2 Included Work

This contract provides for the Contractor to fulfil the following functions:

- a) The maintenance of records and accurate measurements of the works for certification by the Employer.
- b) The supply and application of all safety procedures, equipment, and personal protective equipment applicable to the works.
- c) The supply of all plant, equipment, materials, transport, labour, incidentals, fuels etc. and supervision to carry out the works.
- d) The removal of all redundant material, rubble, and spoil to the Foskor free issue skip.
- e) The construction, quality control testing and maintaining a quality control system.
- f) Payment of import and custom duties.
- g) Transportation and delivery to the designated site in the Foskor plant as required in terms of scope of works.
- h) Supervision of erection of the contract works, i.e., offloading from transport, safe storage, handling to situation, installing, setting to work, testing, maintaining prior to the practical completion date and all other work incidental thereto.



Until otherwise notified, Foskor (Pty) Ltd have designated a Project Supervisor/Engineer to act as Foskor representatives, and they are authorized to give instructions and to provide information to you on Foskor's behalf.

1. It is preferred that the supplier submit contact details for a designated 'point of contact' person who will be authorized to receive information and act on supplier's behalf.
2. Foskor's Health & Safety Representative will deal with all matters relating to the Health & Safety specifications and Construction Regulations relating to this assignment.
3. A pre-requisite of this contract is that the supplier confirms that he shall carry the necessary professional/construction indemnity insurance cover to the extent of the liabilities contemplated.
4. The Tenderer should determine the work methodology and approach. However, it is imperative that the outcome of the works meets all the criteria related to this project.

C.7.2 Site Conditions

It will be imperative for the successful Tenderer to liaise with the Foskor (Pty) Ltd.'s designated project leader (Foskor representative) to ensure safety whenever site access is required.

Be cautious of Foskor equipment, employees and contractor employees always doing their routine maintenance and daily duties in the area.

As it will be deemed that the prevailing conditions have been considered when tendering, no claims for extras arising from failure to observe all site conditions will be admitted.

C.7.3 Services which are known to exist on the site

The following services exist on the site:

- Water, sewer, stormwater, and fire water.
- Electrical and instrumentation cables.
- Steam pipes, acid pipes and air pipes.



C.7.3.1 Foskor Supplied Services

Foskor (Pty) Ltd shall be responsible for:		Applicable:
1	Supply a copy of the relevant Foskor Procedure Specification(s).	refer C.3
2	Supply a copy of reference drawings if required.	refer C.6
4	Provide access to electricity connection points Any connection and consumption will be monitored by Tenderer and verified by Foskor on defined intervals (usually at the beginning and end of contract)	YES
5	Provide access to potable water Connection and consumption would need to be monitored by Successful Tenderer (Contractor) and verified by Foskor on intervals (usually at the beginning and end of contract) defined by Foskor	YES
6	Provide a suitable area for site establishment for Successful Tenderer (Contractor). - Successful Tenderer to formally in writing motivate, request and define the area and services it deems necessary for site establishment. - Foskor will at its own discretion (if request is approved) allocate a site establishment area, however Foskor can should it deem necessary retract or re-define its approval by giving reasonable notice to the successful Tenderer	ON REQUEST
7	Provide access to ablutions facilities. (not change rooms) - Successful Tenderer (Contractor)'s workers to be fully dressed in required PPE when coming on site. - The successful Tenderer to ensure that its workers/subcontractors/ supplier that are making use of facilities, do so in an orderly and well-mannered way. - Successful Tenderer is not allowed to make use of Foskor's change room or tearoom facilities unless agreed to in writing. - The successful Tenderer might be called on to assist with the maintenance and cleaning of ablutions, should Foskor at its discretion be of the opinion that it be necessary. Cost associated with such cannot be claimed from Foskor (Pty) Ltd.	YES
8	Assist in issuing of work clearances and HIRA certificates.	YES



C.7.3.2 Successful Tenderer (Contractor) Responsibilities

The successful Tenderer (Contractor) shall be responsible for (inter alia):		Applicable:
1	Supply of own labour, supervision, equipment, specialized manpower and other staff to fulfill the scope of work.	YES
2	Supply suitable (approved) Personal Protective Equipment (PPE)	YES
3	To ensure that all work is reviewed by designated Foskor (Pty) Ltd representative at all stages and/or agreed milestones of the project. All work completed needs to be inspected and approved by the designated Foskor representative (e.g. Project Supervisor/ Manager)	YES
4	After installation/construction and commissioning the successful Tenderer shall conduct final inspection of all work together with designated Foskor (Pty) Ltd representative to compile SNAG list.	YES
5	To ensure that all acceptance approvals as per the Quality Control Policy (QCP) are received before work is finally handed over.	YES

Note that concerning above:

- i. No claims towards losses will be accommodated.
- ii. All items that the Successful Tenderer will bring to Foskor (Pty) Ltd, will be subjected to review and approval by Foskor (Pty) Ltd and shall conform to Foskor procedures.

C.7.4 Certification by Recognized Bodies

Only Tenderers registered with the relevant Board (e.g. SAFCEC, CASA, NHBRC, Electrical, National Building, etc.) of South Africa in accordance with the Regulations of the Occupational Health and Safety Act will be accepted and permitted to do work under this contract.

C.7.5 Requirement for the termination, diversion, or maintenance of existing services

Only Applies if/where electrical conductors, pipe conduits, electrical transmitters, ducting, or ventilation services are affected. Unless identified as part of the scope, the Contractor must immediately bring to Foskor's attention any previously unspecified or obstructing services existing in his area of work without terminating/diverting/hindering such services.



C.7.6 Nominated Sub-Tenderers

Should the tenderer anticipate using Subcontractors for any part of the scope, these must be specified below.

The following Sub-Tenderers are nominated:

Contractor	Concerning Works	Contact

C.7.7 Invoicing and Payment

Payment will be made by Foskor (Pty) Ltd, after approval (with consideration for the construction, completion and defects corrections of the Works) by the Foskor (Pty) Ltd's Project Representative (i.e. Engineer, Project Supervisor) of the submitted Payment Certificate to the Tenderer within **30 (thirty)** days from the date of the Tenderers approved statement.

The invoice shall be approved in accordance with the provisions of Foskor (Pty) Ltd.'s terms and conditions.

The invoice submitted is to be in a format acceptable to the Foskor (Pty) Ltd's Project Representative and need to contain the following minimum information:

- Company details, registration no and VAT registration no,
- Purchase Order no & Date of invoice,
- Copy of Purchase Order,
- Detail description of work done to date,
- Value of the current claim and work done (excl. VAT),
- VAT charged.

C.7.8 Standing Time

Standing time is defined as a period measured in hours, when the Contractor's normal operational cycle is affected by causes caused by Foskor (Pty) Ltd and results in normal stoppage or major disruption to the regular progress of the Works.

Payment to the Contractor for standing time will be certified only where, in Foskor (Pty) Ltd's opinion, the delay was clearly beyond the reasonable control of the Contractor and the Contractor further took all reasonable measures to avoid or reduce such delay and such delay imposed direct costs to the Contractor.



C.7.9 Progress of Works

Should Foskop (Pty) Ltd at any time be of the opinion that the rate of progress of the Works or any part thereof is too slow to ensure the completion of the Works or any part thereof by the Completion Date, Foskop (Pty) Ltd shall so notify the Contractor in writing, with specific reference to this Clause, and the Contractor shall thereupon, subject to the approval of Foskop (Pty) Ltd take such steps as are necessary to expedite progress so as to complete the Works or the said part thereof by the Due Completion Date.

C.7.10 Penalty

If the Contractor, by the Due Completion Date, fails to complete the Works to the extent which entitles him to receive a Certificate of Practical Completion, the Contractor shall be liable to Foskop (Pty) Ltd for an amount of **0.1% for every Calendar Day that the works is late or such portion of the contract price as is associated with that part of the Works.**

The imposing of such penalty shall not relieve the Contractor from the obligation to complete the Works or from his obligations and liabilities under the Contract.

C.7.11 Claims: Extension of Time for Completion, Additional Payments or Compensation

C.7.11.1 Claims Procedure

The following provisions shall apply:

- i. Claims are to be submitted in writing within **7 days** after the circumstances, event, act or omission giving rise to such claim has arisen or occurred to the Foskop (Pty) Ltd Project Representative
- ii. Submit **written notice** to the Foskop (Pty) Ltd Project Representative of the intention to claim within **7 days** after the circumstances, event, act or omission giving rise to such claim has arisen or occurred. The Notice and subsequent claim to set out:
 - a. Particulars of the circumstance, event, act or omission giving rise to the claim concerned.
 - b. Provisions of the portion of the contract on which he intends to make the claim;
 - c. Length of extension of time, if any, claimed and the basis of calculation thereof, and
 - d. The Price Adjustment, if any, claimed and the basis of calculation thereof.
- iii. If the Contractor cannot reasonably comply with any of the provision above within the said period 14 days, he shall:
 - a. Notify the Foskop (Pty) Ltd Project Representative in writing of his intention to make the claim and comply with such requirements as he reasonably can;
 - b. Deliver additional information in writing that is reasonably required by Foskop (Pty) Ltd; and
 - c. Comply as soon as practical with such requirements as described above in this clause, within a time agreed to by the Foskop (Pty) Ltd Project Representative.
- iv. In the event of failure to comply to any of the provisions, the claim would not be accommodated and Foskop (Pty) Ltd would be discharged of all liability in connection with the claim.



C.7.11.2 Extension of Time for Completion

The whole works shall be completed within the time agreed upon.

If any circumstances of any kind whatsoever may occur and as such, fairly entitle the Contractor to any extension of time for the completion of the works or portion thereof, then the Foskor (Pty) Ltd Project Representative will consider a claim duly submitted.

C.7.12 Cancellation of the Contract by Foskor (Pty) Ltd

If:

- (a)
 - (i) The estate of the Contractor shall be sequestered (provisionally or finally), or
 - (ii) The Contractor shall publish a notice of surrender of his estate as insolvent, or
 - (iii) The Contractor, being a company or a close corporation, shall go into liquidation (provisionally or finally), or
 - (iv) The Contractor shall assign the Contract without the consent in writing of Foskor (Pty) Ltd having first been obtained, or
 - (v) The Contractor shall enter into a compromise with the general body of his creditors, or
 - (vi) The Contractor shall have an execution levied on his goods, or
- (b) the Foskor (Pty) Ltd Project Representative shall certify in writing to Foskor (Pty) Ltd, and to the Contractor/Consultant, with specific reference to this Clause, that in his opinion the Contractor/Consultant:
 - (i) has abandoned or repudiated the Contract, or
 - (ii) has, without reasonable excuse, failed to commence the Works in terms of the time allowed and agreed to, or
 - (iii) has suspended the progress of the Works without due cause, or
 - (iv) has failed to proceed with the Works with due diligence, or
 - (v) is not executing the Works in accordance with the Contract, or
 - (vii) has, without the approval of the Foskor (Pty) Ltd Project Representative, subcontracted any part of the Contract, or
 - (viii) has failed to provide the Surety ship, Professional Indemnity within the time stipulated and for 14 days after receiving a written notice from the Foskor (Pty) Ltd Project Representative, referring specifically to the default concerned and to this Clause, failed to remedy the default,

Foskor (Pty) Ltd may, by written notice to the Contractor, terminate the Contract and withhold any payments due until further notice.



C.7.13 Urgent remedial work

All designs changes or remedial action must be communicated to the Foskor Engineer or the authorized Foskor Designate. Approval of such must be sought and received as early as not to impose undue costs and delays. Should there however be remedial work necessary, the Contractor shall, upon approval from the Foskor Engineer/Designate, effect these with care, accuracy and speed, so as not to impose undue extension of time and /or cost.

If any work as done by Foskor (Pty) Ltd is work which the Contractor was liable to do at his own expense under the Contract, all costs incurred by Foskor (Pty) Ltd in so doing shall be determined by Foskor (Pty) Ltd or its agent and shall on demand be paid by the Contractor to Foskor (Pty) Ltd.

C.8. Foskor Safety Documents to be submitted, Environmental and Site Management**C.8.1 SHREQ Requirements**

The successful Tenderer will be required to comply and ensure continuous compliance with Foskor standards and national regulations:

- Compliance with COP6 (Contractor Management).
- Compliance and signing of Section 37(2) Agreement in terms of the OHSAct at the Foskor (Pty) Ltd Safety Department.
- Compliance with Legislation requirements which includes the OHSAct, NEMA (National Environment Management Act) and other relevant applicable Legislation.

* *copy of requirements available from Foskor SHREQ Department.*

C.8.2 Environmental Management Specifications

In order to ensure that the construction works is designed for an environmentally sensitive area, strict compliance to the Environmental Management Plan (EMP) guidelines may be requested after appointment of the contractor.

The EMP shall be part of the terms of reference for all contractors/consultants, sub-contractors/consultants, and suppliers.

A copy of the EMP requirements is available from Foskor (Pty) Ltd SHREQ department.

All MSDS's to be submitted to Foskor (Pty) Ltd.

Waste disposal needs to comply to Foskor (Pty) Ltd Waste Management Plan.

C.9 OHSA 1993 Health and Safety Specification

This specification covers the health and safety requirements to be met by the successful Tenderer (Contractor) to ensure a continued safe and healthy environment for all workers, employees and subcontractors/consultants and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction regulations.



C.9.1. Health and Safety Induction

The successful Tenderer (Contractor) shall ensure that all employees under his control, including the subcontractors/consultants and their employees, undergo a health and safety induction training course by a Foskor competent person before entering site.

- a. The Contractor shall ensure all his/her personnel have attended the Safety Induction, by Foskor (Pty) Ltd before they enter site.
- b. The Contractor on entering site, must wear Foskor minimum required PPE at all times namely safety glasses, acid resistant overalls, safety harnesses (on heights), safety boots or steel cap gumboots, ear protection, Tychem suite (when working in the vessel/Dry Tower) and **gas masks (Halfmask double filter – screw type with filter type A1B1E1K1 – North Safety Product or similar approved product) and goggles (Uvex ultravision – W1663459B – DIN CE 0196) preferably in a pouch.** Should a Contractor be found on site without the above-mentioned safety clothing, he will be removed from site and will not be allowed to return. FFP3 dust mask fitted with an exhalation valve must be used when working in dust in on the B&D Store.
- c. **Overalls must be Blue Sweet Orr overall (80% Ployester 20% Viscose Rayon Acid repellent) with Company names either on front of jacket or back OR Blue North Safety Acid/Flame overall (Flame retardant acid resistant anti-static ATPV 15.4CAL/CM2) with company names either on front of jacket or back and fluorescent reflective strips to be stitched onto sleeves and on the knees.**
- d. The Contractor shall demarcate the relevant work area. The Contractor shall supply and erect an appropriate name board with all relevant information and contact details at the work area.
- e. The job risk assessment shall be carried out at the start of each shift. This risk assessment shall cover all activities planned for the relevant shift. The risk assessment shall be submitted to Foskor (Pty) Ltd at the start of each day shift and each night shift.
- f. The Contractor must take safety precautions when working on site.
- g. The Contractor must remove all their equipment within 48 hours after project completion/closure.
- h. A complete safety file to be submitted to Foskor (Pty) Ltd Safety Department before any work commences.
- i. The Contactor's vehicle when entering the Plant must have rotating orange lights on at all times.
- j. **The Contractor and their employees must undergo a full medical at either Foskor (Pty) Ltd's Clinic or Caredoc Richards Bay or their approved by Foskor (Pty) Ltd. A full lung function test must be done. If a project is longer than twelve months, then a complete medical including lung function tests must be done again and thereafter the lung function test. Medical certificates are valid for one year only. For medical costs and bookings please contact Sister Nkosazana Nxumalo at Foskor (Pty) Ltd Clinic on 035 902 3287.**
- k. A once-off fee is also required for access cards from Foskor Security. Please contact the Foskor (Pty) Ltd Security Reception at 035 902 3267 for information.
- l. No access to elevated platforms, roof and scaffolding will be allowed during rainy days.

Health and Safety Requirements.

Below are safety requirements for the successful Tenderer (Contractor):

- a. A safety plan for the work to be done by the contractor.



- b. The contractor must appoint a qualified Safety Officer with at least Diploma in Safety Management or SAMTRAC or both, either on a full time or part time basis to conduct the following responsibilities:
 - Conduct and submit audits monthly.
 - Conduct and submit inspections monthly.
 - Compile and submit safety monthly report to Safety Department.
 - Perform safety talks and awareness training and submit evidence to Foskor.
 - Visibility on Site.
 - Conduct inspections on PPE and provide evidence to Foskor.
 - Continuously update Safety File.
- c. A contractor to submit a comprehensive task-based risk assessment that has acknowledged the Foskor baseline risk assessment and method statement.
- d. A contractor to appoint a full-time supervisor to manage and supervise all the activities of his/her employer.
- e. All new work activities must have scope of work and communicated to Safety Department before starting with the works, with exception of emergency breakdowns.
- f. **All maintenance emergency works and consultants are exempted** from the above-mentioned safety requirements.

NB.

A contractor that has been awarded work must register with **HSEC Online**, which is a contractor management system for Foskor Acid Division where all contractors are required to submit.

MANDATORY AS ENVISAGED BY SECTION 37(2) OF THE ACT

By the submission of a tender, any tenderer will, if awarded the contract to which this tender document relates, be deemed to be the mandatory as envisaged by Section 37 (2) of the Act.

As a mandatory the successful tenderer will be deemed to be the “principal contractor” and an employer in his/her/their own right with duties as prescribed in the Act and accordingly will be deemed to have agreed to be solely responsible for ensuring that in connection with the service to which this tender document relates, all work will be performed in accordance with the Act.

It is further noted that: -

- a) The Contractor shall comply with all Foskor Regulations and Safety Standards.
- b) The Contractor shall fully comply with the OHS Act (Act 85 of 1993).
- c) The Contractor shall fully comply with Covid-19 compliance as part of Section 37(2) of the Act.

IMPORTANT NOTE

The above is a summary of some of the matters as defined in the Act. The successful Tenderer (Contractor) is required and advised in his own interest to make a careful study of the Act and the Construction regulations.

Ignorance of the Act and the Regulations will not be accepted in any proceedings as a valid reason if non-conformance to the Act and the Regulations are committed.



C.10. Applicable General Conditions of Contract

Unless expressly otherwise indicated, Foskor General Conditions of Contract and the FIDIC terms of Contract would apply, and is available from the Manager Procurement Foskor Richards Bay.

C.11. Quality Management

The successful Tenderer is to adhere to Foskor (Pty) Ltd's Quality Management System and specifications incorporated in this Tender Document.

To ensure that all installations are carried out in a controlled manner, the Contractor shall demonstrate this by means of the internal quality system, which shall include as a minimum a QCP for each piece of equipment. The QCP must be approved by Foskor before commencement of any work.

C.12 Quality Control:

- i. A detailed QCP (Quality Control Plan) shall be submitted within 3 days of contract award.
- ii. Quality of work must be monitored and controlled at a high level at all times.
- iii. At each hold and witness point all work shall be suspended until the specified inspection has been completed and the QCP updated and signed accordingly by Foskor (Pty) Ltd or its representative.
- iv. At each milestone, the designated Foskor (Pty) Ltd Quality Representative must approve the quality and standard of work being produced.
- v. It shall be the responsibility of the Successful Tenderer (Service Provider) to give Foskor (Pty) Ltd timely notice of hold and witness points requiring their intervention.



Section D – Schedule of Quantities

Supplier to submit with this tender Schedules of Quantities or Bill Of Quantities for all work to be done under this scope.

ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>SANS 1200A</u>	<u>BILL NO. 1</u> PRELIMINARY & GENERAL (Applicable to the whole of the Works) Note: A rate shall be entered in the amount column for each item. Items which are included should have the word "included" written in the appropriate column. All items not priced shall be deemed to be included elsewhere in the unit rates and no claim in this regard shall be entertained				
1	8.3 8.3.1	<u>FIXED-CHARGE AND VALUE-RELATED ITEMS</u> Contractual requirements.	SUM	1		
	8.3.2	Establishment of Facilities on the Site				
	8.3.2.2	Facilities for Contractor				
2	8.3.2.2a	Offices and storage sheds	SUM	1		
3	8.3.2.2f	Tools and equipment	SUM	1		
4	8.3.2.2h	Dealing with water (Subclause 5.5)	SUM	1		
5		Pollution (Subclause 5.6)	SUM	1		
6	8.3.2.2i	Access (Subclause 5.8)	SUM	1		
7	8.3.2.2j	Plant, inclusive of crane and scaffolding	SUM	1		
8	8.3.3	General responsibilities and other fixed-charge obligations	SUM	1		
9	8.3.4	Removal of site establishment on completion	SUM	1		
		<u>Occupational Health and Safety Requirements</u>				
10		a) Quality Assurance Plan to be handed over to engineer for approval prior to site handover (QC/QA)	SUM	1		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
11		b) Preparation of Health and Safety Plan and submission of Health and Safety File	SUM	1		
12		c) Health and Safety Training, inductions, KBC, etc	SUM	1		
13		d) Medical examinations	SUM	1		
14		e) Personal Protective Clothing and Equipment	SUM	1		
15		f) Fences, Signs and Barricades supplied by Client	SUM	1		
16		g) Establishment of Safety Administration	SUM	1		
17		i) Other Health and Safety Fixed-charge and value related charged obligations	SUM	1		
	8.4	<u>TIME-RELATED ITEMS</u>				
18	8.4.1	Contractual Requirements (Calculated over contract period)	SUM	1		
	8.4.2	<u>Operation and Maintenance of Contractors Facilities on Site, for Duration of Construction, (unless otherwise stated)</u>				
	8.4.2.2	<u>Facilities for Contractor</u>				
19	8.4.2.2a	Offices and storage sheds	SUM	1		
20	8.4.2.2f	Tools and equipment	SUM	1		
21	8.4.2.2g	Water supplies, electric power and communications	SUM	1		
22	8.4.2.2h	Dealing with water (Subclause 5.5)	SUM	1		
23		Pollution (Subclause 5.6)	SUM	1		
24	8.4.2.2i	Access (Subclause 5.8)	SUM	1		
25	8.4.2.2j	Plant inclusive of crane and scaffolding	SUM	1		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
26	8.4.3	Supervision for duration of construction	SUM	1		
27	8.4.4	Company and head office overhead costs for duration of construction.	SUM	1		
28	8.4.5	General responsibilities and other time related obligations	SUM	1		
<u>Occupational Health and Safety Requirements</u>						
29		a) Comply with Approved Quality Assurance Plan and requirements	SUM	1		
30		b) Implementation and maintenance of Health and Safety Plan	SUM	1		
31		c) Provision of Construction Safety Officer(s)	SUM	1		
32		d) Implementation and maintenance of Training	SUM	1		
33		e) Maintenance of Personal Protective Clothing and Equipment	SUM	1		
34		f) Interim task related risk assessment	SUM	1		
35		g) Maintenance of Fences, Signs and Barricades	SUM	1		
36		h) Implementation and maintenance of Safety Administration	SUM	1		
37		i) Other Health and Safety Time-related Obligations	SUM	1		
	8.7	<u>DAYWORK</u> <u>Dayworks</u> Dayworks will only be used as a method to value additional work if such additional work is identified as dayworks on the Engineer's instruction. Any amounts included for daywork items in the schedules of quantities are provisional and will be adjusted in accordance to final values of work done or may be omitted in it's entirety.				
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		<u>Rates for Labour (Inclusive of Supervision, Small Tools and Consumables.).</u>				
38		Skilled (Artisan)	hrs			
39		Semi Skilled (Construction hand)	hrs			
40		Operator / Machine operator	hrs			
41		Supervisor	hrs			
42		Planner and equipment	hrs			
		<u>Plant</u>				
43		Welding machine	hrs			
44		Angle Grinder including grinding or cutting disc	hrs			
45		Cutting torch	hrs			
	8.8	<u>TEMPORARY WORKS</u>				
	8.8.2	<u>Accommodation of traffic - provide barricade protection and suitable temporary signage in the vicinity of the Works, all to the satisfaction of the Health and Safety Officer for entire duration of the Works</u>				
50		New Barrier Walls @ New R&F Plant Vacuum Floor	SUM	1		
51		Cooling Tower Containment - Construction of drain next to road and speedhump over road	SUM	1		
52		Pipe Support Replacement @ Old Cooling Tower	SUM	1		
TOTAL CARRIED TO SUMMARY						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	
		<u>BILL NO. 2</u> <u>NEW BARRIER WALLS @ NEW R&F PLANT VACUUM FLOOR</u>				
	<u>SANS 1200C</u>	<u>SITE CLEARANCE</u>				
	8.2.8	<u>Breaking up and removing</u>				
1	8.2.8	Saw cut existing concrete surface bed (min 100mm deep) to create neat joint	m	56		
2	8.2.8	Opening through 150mm thick reinforced concrete floor including cutting off and removing reinforcement	m ³	12		
3	8.2.8	Handrailing	m	56		
	<u>SANS 1200DM</u>	<u>EARTHWORKS (SUBGRADE)</u>				
	8.3.3	<u>Treatment of In-Situ earthworks</u>				
	8.3.3.1	<u>In-situ preparation and compaction of material to:</u>				
4	8.3.3.1b	minimum of 93% modified AASHTO maximum density.	m ³	11		
	<u>SABS 1200GA</u>	<u>CONCRETE WORKS</u>				
	8.2	<u>FORMWORK</u>				
	8.2.2	<u>Smooth Formwork</u>				
5	8.2.2	To sides of wall	m ²	140		
	8.2.3	<u>Narrow widths</u>				
6	8.2.3	Smooth formwork to sides of berm not exceeding 300mm high	m	56		
	8.2.4	<u>Box Out Holes/Form Voids</u>				
7	8.2.4	25mm Chamfer 45 degrees on edge of concrete wall	m	112		
8	8.2.4	100 x 200mm Triangle along bottom edge of concrete wall	m	56		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	8.3	<u>REINFORCEMENT</u>				
	8.3.1	<u>High tensile and mild steel reinforcement bars to concrete work</u>				
9	8.3.1	Various diameter bars	kg	1800		
		<u>Drill and dowel</u>				
10		Drilling holes into the side of existing column 150mm deep to fix Y16 dowel with ABE 395 epoxy grout into existing concrete in strict accordance with manufacturer's specifications and cast into new concrete work	No	128		
11		Drilling holes into the top of existing slab 150mm deep to fix Y16 dowel with ABE 395 epoxy grout into existing slab in strict accordance with manufacturers specifications	No	290		
	8.3.2	<u>High Tensile Welded Mesh</u>				
12	8.3.2	Mesh type Ref 311	m ²	75		
	8.4	<u>CONCRETE</u>				
	8.4.3	<u>40MPa/19mm Concrete</u>				
13	8.4.3	Berm	m ³	22		
14	8.4.3	Wall	m ³	18		
	8.4.4	<u>Unformed Surface Finishes</u>				
15		Forming of curved berm	m ²	75		
16	8.4.4a	Wood floated finish to berm	m ²	75		
17	8.4.4a	Wood floated finish to top of wall	m ²	75		
		<u>Scabble existing concrete surfaces to expose the aggregate, clean and dry surfaces and apply wet to dry epoxy onto face of existing concrete prior to casting of new concrete</u>				
18		Top of floor for new concrete wall	m ²	20		
TOTAL CARRIED FORWARD						

ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	8.5	<u>JOINTS</u>				
19	8.5	10 x 150mm Isolation joint, comprising of jointex, raking out and 10 x 10mm Sikaflex Tank-N or similar approved (Berm)	m	60		
20	8.5	10 x 250mm Construction joint, comprising of jointex, raking out and 10 x 10mm, with Sikaflex Tank-N or similar approved to both sides of wall (Wall)	m	22		
TOTAL CARRIED TO SUMMARY						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		<u>BILL NO. 3</u> <u>COOLING TOWER CONTAINMENT</u> <u>SITE CLEARANCE</u>				
	<u>SANS 1200C</u>					
	8.2.8	<u>Breaking up and removing</u>				
1	8.2.8	1500mm Wide opening through 150mm thick reinforced concrete floor for <i>v-drain</i> including cutting off and removing reinforcement and saw cut existing surface bed to create neat joints between existing and new concrete work	m	20		
2	8.2.8	Kerbing	m	20		
3	8.2.8	Create 300 x 30mm recess within existing asphalt road to create key including saw cut both sides of asphalt and remove	m	20		
	<u>SANS 1200DA</u>	<u>EARTHWORKS (SMALL WORKS)</u>				
	8.3.2	<u>Restricted excavation</u>				
4	8.3.1b	Excavate in earth material for new v-drain and dispose, as ordered	m ³	5		
	<u>SANS 1200DM</u>	<u>EARTHWORKS (SUBGRADE)</u>				
	8.3.3	<u>Treatment of In-Situ earthworks</u>				
	8.3.3.1	<u>In-situ preparation and compaction of material to:</u>				
5	8.3.3.1b	minimum of 93% modified AASHTO maximum density.	m ³	5		
	<u>SANS 1200ME</u>	<u>SUBBASE</u>				
	8.3.3	<u>Construct the subbase course with G5 material from commercial sources</u>				
6	8.3.3	Subbase courses under v-drain in 150mm layers compacted to 98% MOD AASTO density	m ³	5		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	<u>SANS 1200GA</u>	<u>CONCRETE WORKS</u>				
	8.2	<u>FORMWORK</u>				
	8.2.3	<u>Narrow widths</u>				
7	8.2.3	Smooth formwork to sides of v-drain not exceeding 300mm high	m	50		
	8.3	<u>REINFORCEMENT</u>				
	8.3.2	<u>High Tensile Welded Mesh</u>				
8	8.3.2	Mesh type Ref 395	m ²	30		
	8.4	<u>CONCRETE</u>				
	8.4.3	<u>40MPa/19mm Concrete</u>				
9	8.4.3	V-drain	m ³	5		
	8.4.4	<u>Unformed Surface Finishes</u>				
10	8.4.4a	Wood floated finish to currents and falls	m ²	30		
	8.5	<u>JOINTS</u>				
11	8.5	3 x 50mm Saw cut joint in top of concrete v-drain, 6 x 25mm reamed and 6 x 20mm Sikaflex Tank-N or similar approved	m	9		
12	8.5	10 x 150mm Isolation joint, comprising jointex, raking out and 10 x 10mm and installing Sikaflex Tank-N or similar approved	m	40		
		<u>DAMP-PROOFING</u>				
		<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>				
13		Under v-drain	m ²	30		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	<u>SANS 1200MH</u>	<u>ASPHALT BASE AND SURFACING</u>				
14	8.5.3	Tack coat	m ²	40		
15	8.5.4	Continuously graded asphalt with 60/70 penetration binder in speed hump	t	4.0		
	<u>SANS 1200MM</u>	<u>ANCILLARY ROADWORKS</u>				
	8.3	<u>ROAD SIGNS</u>				
	8.3.6	<u>Statutory signs</u>				
16	8.3.6	Speedhump sign, including poles, excavations, etc	No	2		
17	8.3.6	Speed sign, including poles, excavations, etc	No	2		
	8.4.4	<u>Setting out and premarking</u>				
18	8.4.4b	Special markings over speedhump	Sum	1		
	8.4	<u>ROAD MARKINGS</u>				
	8.4.1	<u>Non-reflectorized Paint Applied at Nominal Rate of 0,42 l/m² (or Proprietary Brand Road-Marking Material (Nominal Rate of Application and Particulars Stated))</u>				
19	8.4.1.5	Speed hump markings	m ²	40		
	8.4.4	<u>Setting out and premarking</u>				
20	8.4.4b	Special markings over speedhump	Sum	1		
TOTAL CARRIED TO SUMMARY						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		<u>BILL NO. 4</u> <u>PIPE SUPPORT REPLACEMENT</u> <u>@ OLD COOLING TOWER</u>				
	<u>SANS 1200C</u>	Work to be completed on level 10429, height from floor level to be confirmed on site				
	8.2.8	<u>SITE CLEARANCE</u> <u>Breaking up and removing</u>				
1		Temporary support to duct/ pipe and remove after use	No	2		
2		Temporary remove surrounding services and structures and reinstate in position after completion	Sum	1		
3	8.2.8	770 x 1800mm Opening through 250mm thick reinforced concrete wall including 20mm deep saw cut to existing concrete wall on both sides, use breaker to demolish portion of concrete, taking care not to damage existing reinforcement and clean concrete surfaces	No	2		
	<u>SABS 1200GA</u>	<u>CONCRETE WORKS</u>				
	8.2	<u>FORMWORK</u>				
	8.2.2	<u>Smooth Formwork propping height to be confirmed on site</u>				
4	8.2.2	To sides of walls	m ²	6		
5	8.2.2	To sides and soffits of supports	m ²	4		
	8.3	<u>REINFORCEMENT</u>				
	8.3.1	<u>High tensile and mild steel reinforcement bars to concrete work</u>				
6	8.3.1	Various diameter bars	kg	101		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	8.4	<u>CONCRETE</u>				
		-				
	8.4.3	<u>40MPa/19mm Concrete, including vibrate to ensure entrapped air is released and apply curing compound</u>				
7	8.4.3	- Portion of walls	m ³	1		
8	8.4.3	Reconstruct pipe support	m ³	1		
	8.4.4	<u>Unformed Surface Finishes</u>				
9	8.4.4a	- Wood floated finish.	m ²	2		
	8.4.4	<u>Scabble existing concrete surfaces to expose the aggregate, clean and dry surfaces and apply Sika dur 32N bonding agent onto face of existing concrete prior to casting of new concrete</u>				
10	8.4.4b	- Wall edges	m ²	4		
	8.4	<u>CONCRETE WALL PATCH REPAIRS</u>				
		-				
11		Partially demolish surface of concrete wall while retaining the existing reinforcement (Provisional)	m ³	4		
12		- Additional Reinforcing to replace/splice corroded members (Provisional)	kg	480		
13		Placement of cementitious free-flowing structural repair concrete & bonding agent and anti corrosive rebar coating (sikacrete 214 & sikatop armatec 110 epocem or similar approved) (Provisional)	m ³	4		
TOTAL CARRIED TO SUMMARY						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		<u>BILL NO. 5</u>				
		<u>NEW SILT TRAP AT EFFLUENT SUMP</u>				
		<u>SUPPLEMENTARY NOTES</u>				
		Foskor to start the existing pumps to empty most of the sump before decommissioning them				
	<u>SANS 1200C</u>	<u>SITE CLEARANCE</u>				
		<u>Site clearance</u>				
1		Remove all silt/ sludge from the existing sump floor	m ²	30		
	8.2.8	<u>Breaking up and removing</u>				
2	8.2.8	250mm Thick reinforced concrete floor while retaining the reinforcement, including cutting off and removing reinforcement at positions as agreed with the engineer and bend out of the way	m ²	11		
3	8.2.8	4mm wide by 40mm Deep scoring saw cut existing surface bed to create neat joints between existing and new concrete work	m	16		
4	8.2.8	Demolish temporary one and half brick wall within pipes, after completion	m ²	8		
		<u>Dewatering</u>				
5		Continually drain water from the 3 off temporary pipe sumps with a submersible pump	Sum	1		
6		Drain remainder of water from existing sump with a submersible pump	Sum	1		
7		Drain groundwater from excavations with a submersible pump during construction	Sum	1		
	<u>SANS 1200DA</u>	<u>EARTHWORKS (SMALL WORKS)</u>				
	8.3.2	<u>Restricted excavation</u>				
8	8.3.1b	Excavate in earth material for new sump and dispose, as ordered	m ³	18		
9		Lateral support to excavated sides not exceeding 2m deep	m ²	30		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
10	<u>SANS 1200DM</u>	<u>EARTHWORKS (SUBGRADE)</u>				
	8.3.3	<u>Treatment of In-Situ earthworks</u>				
	8.3.3.1	<i><u>In-situ preparation and compaction of material to:</u></i>				
	8.3.3.1b	minimum of 98% modified AASHTO maximum density.	m ³	2		
11	<u>SANS 1200ME</u>	<u>SUBBASE</u>				
	8.3.3	<u>Construct the subbase course with G5 material from commercial sources or designated borrow areas</u>				
	8.3.3	Subbase courses under sump in 150mm layers compacted to 98% MOD AASTO density	m ³	2		
12	<u>SABS 1200GA</u>	<u>CONCRETE WORKS</u>				
	8.2	<u>FORMWORK</u>				
	8.2.1	<u>Sacrificial Rough Formwork</u>				
	8.2.1	To sides of sump walls	m ²	25		
13	8.2.2	<u>Smooth Formwork</u>				
	8.2.2	To sides of sump walls	m ²	45		
14	8.2.4	<u>Box Out Holes/Form Voids</u>				
	8.2.4	25mm Chamfer 45 degrees on edge of concrete wall	m	16		
15	8.3	<u>REINFORCEMENT</u>				
	8.3.1	<u>High tensile and mild steel reinforcement bars to concrete work</u>				
	8.3.1	Various diameter bars	kg	900		
TOTAL CARRIED FORWARD						



ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	8.4	<u>CONCRETE</u>				
	8.4.3	<u>40MPa/19mm Concrete</u>				
16	8.4.3	- Silt trap floor	m ³	3		
17	8.4.3	Silt trap walls	m ³	9		
	8.4.4	<u>Unformed Surface Finishes</u>				
18	8.4.4a	- Wood floated finish	m ²	11		
		<u>Scabble existing concrete surfaces to expose the aggregate, clean and dry surfaces and apply Sika dur 32N bonding agent onto face of existing concrete prior to casting of new concrete</u>				
19		Floor edges for new concrete wall infill	m ²	4		
20		<u>Sikaswell A 2015 or similar approved</u> Floor edges for new concrete wall infill	m	16		
		<u>Sikadur-Combiflex SG-10P sealing strip or similar approved</u>				
21		- Top of new and existing concrete joints <u>DAMP-PROOFING</u>	m	16		
		<u>Kayteck Bidum A4</u>				
22		Under surface beds	m ²	11		
23		Tanking to sides of walls <u>PROTECTIVE COATING</u>	m ²	30		
		<u>One coat Sikafloor 161 primer and tree coats Sika guard 63N</u>				
24		To top of floors	m ²	30		
25		To sides of walls	m ²	75		
TOTAL CARRIED FORWARD						

ITEM NO	SANS PAY REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
26		<u>TEMPORARY BRICK WALL IN PIPES</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> One and half brick walls	m ²	8		
27		<u>VALVES & PIPEWORK</u> <u>Stainless steel</u> 100DN Gate valve, with non-rising spindle, right hand closing with hand wheel	No	1		
28		100NB GRADE 316 Puddle pipe, 850mm long, cast into concrete	No	1		
TOTAL CARRIED TO SUMMARY						



	SUMMARY	
1	PRELIMINARY AND GENERAL	
2	NEW BARRIER WALLS @ NEW R&F PLANT VACUUM FLOOR	
3	COOLING TOWER CONTAINMENT	
4	PIPE SUPPORT REPLACEMENT @ OLD COOLING TOWER	
5	NEW SILT TRAP @ EFFLUENT SUMP	
	SUB-TOTAL	
	ADD 10% CONTINGENCIES	
	SUB-TOTAL	
	ADD 15% VAT	
CARRIED TO FORM OF TENDER		



Section E – Evaluation Criteria

Tender No. : RFP- -25/26 Project Title CAPEX CIVILS - NEW BARRIER WALLS @ NEW R&F, COOLING TOWER CONTAINMENT, PIPE SUPPORT AT OLD COOLING TOWER AND NEW SILT TRAP AT EFFLUENT SUMP			
No.	Returnable Documents	Comments	
1	Site Inspection Certificate	Signed by FOSKOR Project Leader	
2	CIDB grade certificate	CIDB grade 3 CE	
No.	Technical Criteria Description	Contribution%	Proof/Documents to be submitted
1	Compliance with Scope of Work Specifications - Weight not to be less than 10%		
a)	Suitability of methodology in alignment with safe work procedure and care of environment as per section C.8, C.9 and C.11. Scoring: Yes(Acceptable) = 5%, No(Not acceptable) = 0%	5%	Submit a method statement that is relative to the project.
2	Reliability - Supplier reliability to complete the project safely within time, quality and budget - Weight not to be less than 30%		
a)	Suitability of project schedule in alignment with FOSKOR guide as per B.2 of tender document presented within realistic timeline. Scoring: Sliding scale from 20% (matching FOSKOR baseline schedule) to 0% Shortest Duration - practical completion <= 12 Weeks = 20% Upper Median -Practical completion 12- 13 Weeks =15% Median - Practical Completion 14-15 Weeks = 10% Lower Median - Practical Completion 15 -16 Weeks = 5% Longest Duration - Practical Completion >= 16 Weeks = 0%	20%	Tenderer to submit project schedule in Ms. Projects format
b)	Suitability of QCP (quality control plan). Qualitative measure. Scoring: Yes(Acceptable) = 10%, No(Not acceptable) = 0%	10%	Submit relevant QCP for this project



3	Competency - Supplier experience & team competency - Weight not to be less than 60%		
3.1	Company - Weight not to be less than 35%		
a)	Previous experience in similar work, environment, magnitude and complexity. Previous experience with Reinforced Concrete Works . 3 or more References will be 20% 2 References will be 15% 1 Reference will be 10% 0 Reference will be 0 % Range: Highest = 20% and Lowest = 0%	20%	Submit a list of projects undertaken and completed with description, duration of project start and completion, project amount as well as appointment letters and completion certificates with contact details of references.
3.2	Site Manager - Weight not to be less than 15%		
a)	NQF Level 5 in the Built-in environment Scoring: Yes = 5%, No = 0%	5%	Submit Candidate's diploma/Degree qualification
b)	Experience in construction of similar projects (Reinforced concrete / Acid-resistant lining) Scoring Previous experience with construction of similar projects (Construction of reinforced concrete works) Relevant experience 5 years and greater is 10% Relevant experience of 1 to 4 years is 1% to 9% respectively Range: Highest = 10% and Lowest = 0%	10%	Submit CV with list of projects undertaken and completed with description, time of project start and completion, project Amount as well as references with contact details.
3.3	Site Supervisor - Weight not to be less than 20%		
a)	Experience Scoring Previous experience with construction of similar projects (Construction of surfaced roads) Relevant experience 5 years and greater is 20% Relevant experience of 1-4 years is 2% to 18% respectively Range: Highest = 20% and Lowest = 0%	20%	Submit CV with list of projects undertaken and completed with description, time of project start and completion, project Amount as well as references with contact details.



3.4	Health and Safety Officer - Weight not to be less than 10%		
a)	SACPCMP Registration: Construction Health and Safety Officer Scoring: Yes = 5%, No = 0%	5%	Submit Candidate's qualification
b)	Experience as a Health and Safety Officer Scoring Previous experience with construction of similar projects Relevant experience 3 years = 5% Relevant experience 2 years = 3% Relevant experience 1 year = 1% Yes = 5%, No = 0%	5%	Submit CV with list of projects undertaken and completed with description, time of project start and completion, project Amount as well as references with contact details.
Total Technical Score:		100%	
NOTE: Scoring to add to 70 in total to pass			
DISQUALIFICATION CRITERIA ** Mandatory documentation not submitted. 1 Site Inspection Certificate 2 CIDB grade certificate			



Section F – PROJECT SPECIFICATIONS

PART A: PROJECT SPECIFICATIONS

PS1 WORKS SPECIFICATIONS

PS1.1 Applicable national and international standards

All construction work must be undertaken in accordance with the Standard Specifications for Civil Engineering Construction SANS 1200 and or SANS 2001 family of standards for construction works. Together with the amendments as indicated in Part A: Project Specifications, Part B: Variations and additions to the Standard Specifications, of this document.

Although not bound in nor issued with the Document, the following Sections of the Standardized Specifications of SANS 1200 shall form part of this Contract:

STANDARDIZED SPECIFICATIONS APPLICABLE TO THIS CONTRACT SANS

1200 A	-	GENERAL
SANS 1200 C	-	SITE CLEARANCE
SANS 1200 D	-	EARTHWORKS
SANS 1200 DA	-	EARTHWORKS (SMALL WORKS)
SANS 1200 DM	-	EARTHWORKS (ROADS, SUBGRADE)
SANS 1200 GA	-	CONCRETE (SMALL WORKS)
SANS 1200 H	-	STRUCTURAL STEELWORK
SANS 1200 HC	-	CORROSION PROTECTION OF STRUCTURAL STEELWORK

PS1.2 Particular/generic specifications

As well as the 'Part B: Variations and additions to the Standard Specifications' contained in Part B of Section 1: Project Specifications, of this document, the following Particular Specifications as contained in Section 1, are applicable and is attached hereto as separate documentation.

Part C Foskor Occupational Health and Safety Specifications and Baseline Risk Assessment

PS1.3 Certification by recognised bodies

Only SABS approved materials may be used for construction.

PS2 PLANT AND MATERIALS

PS2.1 Plant and materials provided by the employer

No plant and materials will be provided by the employer.

PS2.2 Materials and samples

Contractor to undertake and submit testing of quality of Material together with strength tests required on representative samples of the materials to be used. Tests must be done in accordance with TMH 1 "Standard Methods of Testing Construction Materials".

The contractor, when using materials that are required to comply with any standard specification, shall, if so ordered, furnish the employer with certificates showing that the materials do so comply.



Where so specified, materials shall bear the official mark of the appropriate authority. Samples ordered or specified shall be delivered to the Employer's office on the site free of charge.

Where proprietary products have been specified, similar products may be used subject to the prior written approval of the employer.

Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the relevant manufacturer's current published instructions.

Unless anything to the contrary is specified, all manufactured articles or materials supplied by the contractor for the permanent works shall be unused.

Earth, stone, gravel, sand, and all other materials excavated or present on the site or within the road reserve, or in borrow areas shall not become the property of the contractor but will be at his disposal only in so far as they are approved for use on the contract.

Existing structures on the site shall remain the property of the employer and except as and to the extent required elsewhere in the contract, shall not be interfered with by the contractor in any way.

Materials to be included in the works shall not be damaged in any way and, should they be damaged on delivery or by the contractor during handling, transportation, storage, installation or testing they shall be replaced by the contractor at his own expense.

All places where materials are being manufactured or obtained for use in the works, and all the processes in their entirety connected therewith shall be open to inspection by the Employer (or other persons authorised by the Employer) at all reasonable times, and the employer shall be at liberty to suspend any portion of work which is not being executed in conformity with these specifications".

The contractor shall satisfy himself that any quarry selected for use provides the necessary mined material in accordance with the specification.

PS3 CONSTRUCTION EQUIPMENT

PS3.1 Requirements of equipment

The Contractor shall ensure that any equipment, plant, and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (2014) shall apply. The Contractor shall ensure that operators are competent and that certificates are kept on site in the health & safety file. All relevant Contractors must ensure the same.

PS3.2 Equipment provided by the employer

No equipment will be provided by the employer.

PS4 EXISTING SERVICES

PS4.1 Known services

The available as-built drawings for gas, electrical and or telecommunication do not indicate any services in the vicinity of the construction works, however, it can reasonably be expected that one or more of these services are in existence since this is an industrial site with a variety of undocumented services installed throughout the site.

It is thus of utmost importance that the Contractor liaise with the Employer to expose and prove all known services in the vicinity of the works so as to avoid injuries, costly repairs and downtime. Measures to protect services need to be



established once the position, depths and cover of services have been established.

The Contractor shall take due care not to damage any possible services and is required to protect any discovered services in their existing positions.

PS4.2 Damage to services

Any cost of repairs, replacement and/or installation of the stations and equipment resulting from the contractor's negligence or unauthorised action shall be to the contractor's account.

PS5 SITE ESTABLISHMENT

PS5.1 Services provided by the employer

PS5.1.1 Contractor's camp site

An appropriate lay down area will be made available by Foskor. Further clarification will be provided at the site briefing.

PS5.1.2 Electricity

The Employer will make available, at the employer's cost, a 220V, electrical supply connection point should this be required. The Contractor must supply and install his own distribution system, which is subject to the Engineer's approval. Any temporary power requirements above this specified amount will need to be provided by the Contractor.

The Contractor is also responsible for the maintenance of his electrical distribution system.

PS5.1.3 Water

The Employer will make available at the employers cost water for construction purposes. It is expected that water will be obtained from a source in close proximity to the works. Contractor will be responsible for the transportation and distribution of water during construction.

PS5.1.4 Sanitary arrangements

The Employer will make available at the employers cost sanitary services for the duration of the construction works.

PS6 FACILITIES PROVIDED BY THE CONTRACTOR

PS6.1 Contractor's camp site

The location for the site camp has not been determined and a suitable lay down area will be provided by Foskor.

The standard of the Contractor's camp, offices, ablution, and other facilities must comply with the requirements of Foskor. Details of the above shall also be submitted to the Employer for approval.

The Contractor is to fully familiarise himself with all regulations for the employment, transport, and accommodation of labour on site.

PS6.2 Electricity

The Contractor must supply and install his own distribution system, which is subject to the Engineer's approval.

Any temporary power requirements will need to be provided by the Contractor.



The Contractor is also responsible for the maintenance of his electrical distribution system.

PS6.3 Water

The Employer will make available at the employers cost water for construction purposes. It is expected that water will be obtained from a source in close proximity to the works.

The Contractor will be responsible for the transportation and distribution of water during construction.

The Contractor shall further make his own arrangements regarding the possible storage of water where required.

PS6.4 Sanitary arrangements

The Employer will make available at the employers cost sanitary services for the duration of the construction works.

Should the contractor wish to install ablution facilities over, and above which is provided by the employer he should make his own arrangements and obtain the necessary approvals.

PS6.5 Fire protection

The Contractor shall provide adequate firefighting equipment in his working area. The type, capacity, location and number of items of firefighting equipment shall be to the satisfaction of the Employer's Safety Manager. The Contractor shall also ensure that his employees are trained in the operation of the equipment.

PS6.6 Refuse and wastes

Separate waste disposal facilities are required for dry/wet concrete; bricks; general rubble and general domestic refuse such as paper, tins, plastics and glass.

The Contractor will make arrangements with a waste disposal company for the removal of waste at regular interval.

PS6.7 Accommodation and transport

The Employer will not provide any accommodation for the Contractors employees.

No accommodation for employees is to be provided on the Construction site or the Contractors lay-down area

A 24 hour, seven days a week presence of security personnel will be permitted, if required by the Contractor.

Transport of contractor's local employees to the Construction Site or lay-down area will be the responsibility of the Contractor.

PS6.8 Security

The Contractor is responsible for the security related to the Construction Site and the Contractors lay-down area.

The Employer is not liable for losses of the Contractor's or his Subcontractor's plant, equipment, or materials from his designated working area.

The Contractor is to set up an appropriate system to secure the Construction Site and the Contractors lay-down area to manage and control all incoming and outgoing personnel, visitors, and traffic. The Contractor is to provide details of what he proposes in this regard and the Contractors authority includes the right to search any person or vehicle before entry or exit and to refuse entrance to Site to any person not meeting security requirements.



Any breach of security must be reported to the Employer immediately.

PS6.9 Safety and First Aid

All site facilities must confirm to the Occupational Health and Safety Act (Act No 85 of 1993). The Contractor shall provide first aid facilities complying with the requirements of this Act for his employees as well as the employees of his Sub-contractors and/ or visitors on site.



PS6.10 Storage facilities

The Contractor is responsible for ensuring that all equipment and materials required under his Contract are delivered to his working area and for the receipt, offloading and storage of the delivered goods.

PS6.11 Laboratory facilities

The proposed off-site commercial laboratory to be used shall be approved by the Employer prior to any testing for this Contract being conducted therein.

The Employer will not consider any claims related to delays to the Works due to test results being awaited. It is in the Contractor's own interest to ensure that samples and/or the necessary facilities are provided timeously.

The tendered amounts shall include for the Contractor's overheads, profit and all costs associated with the use of the outside laboratory (including transport of samples).

PS6.12 Vehicles and equipment

"Construction Plant" includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment.

The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993 and Construction Regulations (2014). The Principal Contractor and all relevant Contractors shall inspect and keep records of inspections of the construction plant used on site. Only authorized/competent persons are to use machinery under proper supervision. Appropriate PPE and clothing must be always provided and maintained in good condition.

PS6.13 Hired plant and machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (2014) shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file. All relevant Contractors must ensure the same.

PS6.14 Advertising rights

The Contractor shall not publish, or cause to be published, any papers, articles or information relating to this project, nor permit any advertising mentioning the subject of this Contract, nor display, or permit to be displayed, any advertisements on the Site, or elsewhere, in connection with this Contract, without the prior permission, in writing, of the Employer. The Contractor shall be responsible for the observance of this Clause by his employees and by his Sub-Contractors.

PS7 SITE USAGE

Refer to the site layout plan. The usage is to be limited to the execution of the contract and shall be the immediate area where the works are to be constructed.

PS8 ALTERATIONS, ADDITIONS AND MODIFICATIONS TO EXISTING WORKS

The planned works are to tie in with existing structures. It is the responsibility of the contractor to verify all dimensions and notify the engineer if any discrepancies are discovered.

The contractor should take due care not to damage the existing structures when installing the new works.

PS9 WATER FOR CONSTRUCTION PURPOSES

Refer to PS6.3.

PS10 SURVEY CONTROL AND SETTING OUT OF THE WORKS

The Contractor shall be responsible for setting out of the works. As all of the work is performed in relation to the existing structures, dimensions from known elements can be used. If any discrepancies become obvious to the contractor, the engineer should be informed immediately.

PS11 CONSTRUCTION IN CONFINED AREAS

It may be necessary for the Contractor to work within confined areas. Except where provided for in the Specifications and the Bill of Quantities, no additional payment will be made for work done in restricted areas. In certain places the width of the fill material may reduce to as little as zero and the working space may be confined. The method of construction in these confined areas will depend largely on the Contractor's constructional plant.

However, the Contractor shall note that measurement and payment shall be in accordance with the specified cross-sections and dimensions irrespective of the method used for achieving these cross-sections and dimensions, and that the tendered rates and amounts shall include full compensation for all special equipment and construction methods and for all difficulties encountered during working in confined areas and narrow widths, and at or around obstructions, and that no extra payment will be made nor will any claim for additional payment be considered in such cases.

PS12 MANAGEMENT**PS12.1 Applicable standards**

Refer to PS1.

PS12.2 Particular/generic specifications

As well as the 'Part B: Variations and additions to the Standard Specifications' contained in Part B of Section 1: Project Specifications, of this document, the following Particular Specification are applicable to this Contract and is provided in separate documentation to this contract.

Part C Occupational Health and Safety Specification and Foskor and Baseline Risk Assessment

PS12.3 Planning and programming

A detailed programme is required within 3 days after the commencement date. The programme shall not be in the form of a bar chart only but shall clearly show the anticipated quantities of work to be performed each week, together with the manner in which the listed plant is to be used, as well as the anticipated earnings for the various sections of work.

Failure to comply with these requirements will entitle the Project Manager to use a programme based on his own assumptions for the purpose of evaluating claims for extension of time or additional payments.

If, during the progress of work, the quantities of work performed per week fall below those shown on the programme, or if the sequence of operations is altered, or if the programme is deviated from in any other way, the Contractor shall, within 2 days of having been notified by the Employer, submit a revised programme and network.

If the programme has to be revised by reason of the Contractor falling behind his programme, he shall produce a revised programme showing how he intends to regain lost time in order to ensure completion of the Works within the time for completion as defined in the Foskor Conditions of Contract plus any granted extension of time. Any proposal to increase the tempo of work must be accompanied by positive steps to increase production by providing more labour and plant on site, or by using the available labour and plant in a more efficient manner.



Failure on the part of the Contractor to submit the programme or to work according to the programme or revised programme shall be sufficient reason for the Project Manager to take steps as provided in Conditions of Contract.

The approval by the Employer of any programme shall have no contractual significance other than the Project Manager will be satisfied if the work is carried out according to such programme and that the Contractor undertakes to carry out the work in accordance with the programme.

It shall not limit the right of the Project Manager to instruct to vary the programme if required by circumstances.

Tenderers shall, with their tenders, submit to the Project Manager a preliminary programme in the form of a bar chart indicating for each portion of the works, the proposed order and rate of progress of the various construction activities. The programme shall be consistent with the construction period tendered to complete the contract.

The successful tenderer shall be required to take cognisance when preparing the construction program and shall note the following:

The programme shall be in the form of a bar chart (Gantt chart) or any other time-activity form acceptable to the Project Manager, and shall clearly show:

- (i) The proposed rate of progress in order to complete the works within the required period as tendered, showing the various activities, their durations and proposed resourcing levels (major plant and labour) for each element of the works. Sufficient detail shall be provided to enable the Project Manager to be able to gauge construction progress. All activities, including establishment on site, trimming and finishing and the completion of all minor ancillary works are to be included in the programme.
- (ii) The sequence of activities and any dependencies (time or resource related) between them.
- (iii) The critical path activities.
- (iv) Key dates in respect of work to be carried out, or information, etc., to be provided, by others.
- (v) Other information specifically required by the Project Manager.

In drawing up the programme the contractor shall make allowance for the following:

- a) Construction of all works is to be completed within the shortest practical time period determined by the contractor.
 - (i) All special non-working days.
 - (ii) The expected delays defined in Section 1: Scope of Works Part A, PS12.6.18: Extension of time resulting from inclement weather.
 - (iii) Known physical conditions or artificial obstructions.
 - (iv) Occupational, Health & Safety approvals.
 - (v) The accommodation and safeguarding of traffic.
- b) Restrictions on the supply of material from commercial sources.
 - (i) Allowance must be made to accommodate sub-contractors working on the site.



- (ii) Environmental requirements as per Specification.
- (iii) Geotechnical aspects which could have an impact on the works.
- (iv) On site access as per own requirements and construction methodology.
- (v) Critical aspects which could have an impact on the works.
- (vi) Accommodation of traffic.

The following details shall be submitted together with the programme:

- (i) The number of working hours per day, working days per week, assumed holiday, or shut down periods on which the programme is based. (where applicable)
- (ii) The overall labour and major plant resource levels and production rates on which the programme is based.
- (iii) The detailed traffic accommodation proposals on which the programme is based.
- (iv) A budget forecast of the value of completed work, excluding CPA and contingencies but including VAT, month by month, for the full contract period.

These additional items shall also be revised when any revision is made to the programme.

Failure to comply with these requirements entitles the Project Manager to use a programme based on his own assumptions to evaluate claims for extension of time for completion of the works, or for additional compensation.

Minor revisions to the approved programme may be introduced from time to time by mutual agreement between the Contractor and the Project Manager. Should the Project Manager believe that a major revision of the programme is required, the Contractor will be notified in writing and an updated programme shall be submitted within one week of receipt of such notification.

It should be noted that it is in the Contractor's interest to provide a comprehensive programme giving as much information as possible about the times allowed for the various activities as well as resource or other limitations affecting the programme, since the approved programme may be used to evaluate any claims in terms of the Conditions of Contract for extension of time.

The Contractor shall submit to the Employer, at least three working days before each bi-weekly site meeting, copies of the following:

- (i) The contract programme with progress charts and programme graphs updated to reflect the actual progress to date.
 - (ii) A summary of progress on site over the month preceding the site meeting. The report shall be in the form of a detailed narrative to the contract programme.
 - (iii) Details of activities running late, indicating what steps have been or will be taken to ensure that the work is completed within the specified time.
 - (iv) A report on all labour, plant and materials on site.
 - (v) All other appendices to the bi-weekly site meeting minutes, as required by the Employer."
- c) Programme revisions



The programme will be reviewed at the bi-weekly site meetings at which the contractor shall provide sufficient detail that will allow the comparison of completed work per activity against the original approved programme. The contractor shall indicate what resources and programme changes he intends to implement in order to remedy any activity that has fallen behind. The Project Manager may demand from the contractor a major revision of the programme. Such a revision shall be submitted for approval within seven days of the demand."

PS12.4 Sequence of the works

The Contractor is at liberty to plan the sequence of the work on the basis of achieving the shortest possible construction period.

PS12.5 Software application for programming

Microsoft Projects will be the software platform used for preparing and providing the programme in accordance with the requirements as set out.

PS12.6 Methods and procedures**PS12.6.1 Contractors' areas and housekeeping**

Before moving onto Site, the Contractor shall indicate how he intends to utilise the Construction site and Contractors lay-down area and indicate this on a plan the plan. The Contractor shall indicate proposed locations of offices, ablutions and toilets, stores, car park, equipment park, for the Employer's approval.

All persons on Site are expected to contribute towards keeping the Site orderly and tidy. Rubbish, such as cartons, papers, tins, and bottles shall be suitably disposed of.

The Contractor and his Subcontractors shall only store waste material, rubbish, spoil, etc, at places and in a manner designated by the Employer.

Rubble and waste construction materials may not be buried or burnt.

The Contractor shall ensure that his working area and that of his Sub-contractors is kept neat, tidy and clean at all times.

If the Contractor fails to maintain satisfactory standards of housekeeping to the reasonable satisfaction of the Employer, then the Employer may undertake this work with other resources and back-charge the cost to the Contractor.

The Contractor's work is not completed until he has tidied and cleaned his working area to the reasonable satisfaction of the Employer.

PS12.6.2 Access

The professional team shall have the right to enter at any reasonable time, any part of the Contractor's working area or offices.

PS12.6.3 Hours of work

Although the Site will be accessible 24 hours a day, the Contractor is required to define his standard working hours which must comply with statutory requirements.

The Contractor is reminded that every employee shall take at least 24-hour continuous rest in any period of seven days.



Requests for working outside these agreed hours shall be made to the Employer at least 24 hours in advance in the prescribed format.

The Contractor shall ensure that adequate supervision is provided outside normal working hours.

PS12.6.4 Restricted areas

It is not foreseen that any areas of the site will be restricted unless so ordered by the contractor for some reason. Notices of these areas will be issued by the Contractor in writing. All personnel are expected to observe the conditions laid down in these notices.

The Contractor's employees must follow the defined roads and walkways when coming to or leaving their normal workplace. Taking short cuts through other sections of the Works is not permitted.

PS12.6.5 Emergency procedures and safety

The Contractor will prepare issue procedures for warnings of emergency, evacuation arrangements, communication arrangements and responsibilities for action in an emergency.

The Contractor shall submit a list of names and telephone numbers of persons to be contacted in case of accident or emergency outside normal working hours.

PS12.6.6 Access to and within the site

Access to the site of the works can be obtained from the existing city road network together with the existing internal roads network within the Foskor plant area. Final access arrangements to be clarified at pre-tender briefing meeting.

PS12.6.7 Possible areas for stockpiling or spoiling of material

Construction materials may be temporarily stockpiled within the area of works or on other locations as agreed with the Employer.

All spoil material from excavations shall be hauled to and disposed of onsite as directed by the Employer, all other building rubble and waste to be disposed at the Municipal Refuse Site, Empangeni.

PS12.6.8 Delivery of material

The Contractor shall ensure that all material delivery and removal vehicles carrying loose material are suitably covered to prevent the loss of material. The rates tendered shall include for suitable covers including for sub-contractors supplying or removing materials.

PS12.6.9 Material sources

The principal material sources for layer works and steel will be from commercial sources.

PS12.6.10 Borrow pits and spoil areas

It is not anticipated that material will be borrowed from site.

All contaminated material (if any) will be disposed of in skips provided by the Employer who will arrange for the removal from site to an approved waste disposal site.

All other material shall be hauled to and disposed of at the designated Local Municipality Refuse Site. Any spoil sites other than the Municipal Refuse Site shall be determined on site in conjunction with the Employer. The Contractor shall be permitted to use only those spoil areas approved by the Employer.



PS12.6.11 Maintenance

The Contractor shall be responsible for maintenance of the works until final completion.

PS12.6.12 Finishing and tidying

On no account must rubble and spoil materials, other materials, equipment, or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of other Contractors or Authorities.

Finishing and tidying must not simply be left until the end of the construction period. The defects liability period in respect of the Works shall commence on the date on which the works is accepted by the Employer as being completed, i.e., fully commissioned, including finishing and tidying.

On completion of the contract the Contractor shall ensure that all materials used in the construction of the temporary site office, workshop and storage yard are removed from site. Waste materials such as construction debris and soil contaminated with oil and fuel are to be disposed of at the solid waste disposal site used by the Local Municipality. Prior to the handover of the Site to the Employer, the Contractor and the Employer will conduct a post construction audit to determine if any additional measures are to be taken. The Completion Certificate will only be issued after this stage.

PS12.6.13 Security regulations**PS12.6.13.1 General**

All personnel on Construction Site or Contractors lay-down area must possess an identification card supplied by Foskor. Particulars to be reflected on the identification card include at the surname and initials of the employee together with an identity number/ Personnel number and occupation and a recent photograph.

Only persons with legitimate business on the Construction Site or Contractors lay-down area and in possession of positive identification are allowed access to these areas.

PS12.6.13.2 Vehicles

Contractors' and visitors' cars are not allowed within the Construction Site area. Cars must be parked in the car park.

A limited number of Contractor vehicles will be allowed entry to the Construction Site and suitable vehicle entry discs should be issued by the Contractor at the discretion of the Employer on receipt of an application signed by the Contractor.

No motorcycles, two wheel or four-wheel types will be allowed on the Site.

PS12.6.13.3 Visitors

Visitors are subject to all rules of identification, safety, and discipline and if occasional must be accompanied by a host who has undergone formal Safety induction for the Construction Site. Regular visitors can apply for a permanent identification card but are then obliged to attend the Construction Site Safety induction program. A visitor is regarded to be a "regular" visitor if he/she visits the Construction Site once or more per week.

Visitors must be provided with, or provide their own, mandatory Personal Protective Equipment.

PS12.6.13.4 Recruiting

No recruiting of personnel will be allowed at the Construction Site or Contractors lay-down area.

PS12.6.13.5 Unauthorised persons

The contractor shall keep unauthorised persons from the works at all times. Under no circumstances may the contractor's personnel be accommodated on the site.

PS12.6.13.6 Loss of /or damage to plant or property

Any Contractor's employees found causing wilful damage to any plant or property on the Site, belonging to the Employer, the professional team or other Contractor, shall be removed from Site and such damage made good at the Contractor's expense.



PS12.6.14 Site Instruction Book

The Contractor shall supply, at his own expense an A4 size triplicate book which shall be kept in the site office. All correspondence between the employer's representatives and Contractor's site staff shall be entered into this book, and each entry signed and dated by both parties. It shall be available from the first day of the contract and at all times be accessible to the employer's representatives.

The original shall be issued to the Contractor, the first copy is to be forwarded to the office of the employer's representative's and the second copy shall remain in the book.

Employer's representative's version of the entries that have been lost will be assumed correct and binding. If the Contractor should lose the book, it will be considered a grave offence on his part. In such case the Employer's representative's version of the entries that have been lost will be assumed correct and binding.

PS12.6.15 Daily records

A site diary is to be compiled jointly by the contractor's and the employer's representative on site and is to be signed and agreed by both parties. The original signed copy is to be retained by the employer's representative.

The contractor is to keep daily records of people and equipment on site in a format to be agreed by the employer's representative and provide copies to the employer's representative when requested.

PS12.6.16 Recording of weather

The contractor shall erect a rain gauge and record the rainfall on a daily basis. This information together with other details of the prevailing weather conditions shall be recorded in the daily site diary.

PS12.6.17 Extension of time for completion**PS12.6.17.1 Climatic records and claims for extension of time arising from climatic conditions**

The Contractor shall record all rainy and windy periods during the execution of the Works. The recordings shall be submitted to the Employer's Representative on a weekly basis, together with a statement recording the Contractor's opinion of the effect on the progress of the Works and on his construction program of any climatic conditions which he may consider to be abnormal and/or to constitute a reason for an extension of the time for Completion of the Works.

Claims for an extension of Time for Completion due to climatic condition whether it may be an initial or final claim in accordance with the Foskor Conditions of Contract, shall be submitted to the Employer's Representative on a weekly basis, in order that such claims may be investigated at the time.

Should the Contractor wish to invoke or submit a claim for extension of time for the completion of the Works due to the Works being delayed by reason of climatic conditions he shall do so in writing giving, inter alia, the following details:

(1) (a) The periods and time work or the works was stopped and proceeded with.

(b) A report on resources on site, active and/or in readiness, at the time of the alleged delay or disruption,

The reports shall be certified by the Employer's representative.

(2) The reasons construction could not or cannot (as the case may be) proceed or commence, with reference to the approved construction program activities and an identification of the



crucial path activity affected.

- (3) The circumstances surrounding any instruction by a third party to stop work due to inclement weather such as Industrial Council Officers, etc.

Only when works shall have been completed in terms of the Conditions of Contract shall the extension of time for completion resulting from climatic conditions, if any, be finalized by the Employer.

PS12.6.17.2 Principles and method for granting extension of time resulting from climatic conditions

“Normal climatic conditions” shall not be deemed to constitute “circumstance of any kind” in terms of the Conditions of Contract.

Extension of time resulting from “adverse climatic conditions” of the Conditions of Contract shall be determined in accordance with a critical path method as follows:

A delay caused by “adverse climatic conditions” will be regarded as an actual delay only if, in the opinion of the Employer, the execution of an item or items of work on the critical path of the construction program of the Contractor cannot be proceeded or commenced on. Delays on working days only (based on an ordinary working week having 45 working hours and an ordinary working day having 9 working hours) will be taken into consideration for the determination of an extension of time, but the Contractor shall make provision in his construction program for expected delays caused by “normal climatic conditions” for which he will not receive any extension of time. The expected delays are given in Section 1: Scope of Works, Part A, PS12.6.19.

Extension of time during days for a particular calendar month will be granted to the degree to which actual delays, as defined above, exceed the expected delays stated in Section 1: Scope of Works, Part A, PS12.6.19 to the Tender; provided that the total cumulative number of working days to be granted to the Contractor as an extension of the time for completion at any stage during the contract period (and due to abnormal climatic conditions) shall not exceed the number of working days determined by subtracting the cumulative total number of working days stated as expected delays from the cumulative total number of actual delays during the total period under consideration.

The Employer shall consider extension of time due to abnormal climatic conditions over the full period of construction up to the authorized Due Completion date, i.e. including any extension thereof, which may have been granted.

Extension of time for parts of a month shall be determined by pro rata values of the expected delays in his construction program.

Although the overall effect of delays resulting from climatic conditions can only be finalized at the conclusion of the construction period (see Sub clause PS11.6.18.1 herein before) extension of time (when applicable) shall be granted at regular intervals throughout the construction period to enable the Contractor to re-program the works, provided that claims for extension of time for completion have been properly submitted by the Contractor in accordance with Sub clause PS12.6.18.

PS12.6.18 Weather conditions

Rainfall station : Richards Bay

Average annual rainfall : 1,228mm

Average number of days per year with rainfall exceeding:

Nn : Average number of days in the calendar month concerned on which a rainfall of **10mm** or more is recorded in terms of existing rainfall data.



Rn : Average rainfall for the calendar month in mm deduced from existing rainfall data.

<i>MONTH</i>	<i>Nn</i>	<i>Rn</i>	<i>MONTH</i>	<i>Nn</i>	<i>Rn</i>
January	4	172	July	2	60
February	4	167	August	2	65
March	3	107	September	3	77
April	3	109	October	3	105
May	2	109	November	3	114
June	2	57	December	3	86

PS12.7 Quality plans and control

The Contractor shall maintain an effective quality system, which meets the ISO 9000 Series or equivalent standard, to ensure and demonstrate that material or services provided conform to the specified requirements.

The Contractor shall be required to submit his detailed quality assurance system to the Employer for approval. Any specialist sub-contractor/supplier shall be required to submit his detailed quality assurance system to the Employer for approval, prior to the supply of any materials.

The contractor shall submit the quality assurance system he proposes using to the Employer, for his approval, within ONE week prior to the site handover. Once accepted by the Employer the contractor shall not deviate from it unless written notification of proposed changes has similarly been submitted and approved. The system shall record the lines and levels of responsibility and indicate the method by which testing procedures will be conducted.

PS12.8 Accommodation of traffic

PS12.8.1 Safety of the travelling public

All works fall within the boundaries of the site and will not affect the public.

PS12.8.2 Safety of the FOSKOR employees and road users

Works will be undertaken in areas where full production conditions exist in the area directly adjacent to the construction site. The safety of the FOSKOR employees and road users are of utmost importance and every effort must be made to ensure that all road signs, barricades, delineators, flagmen and speed controls are maintained and effective and that courtesy is extended to all users at all times whenever this is required.

PS12.9 Other contractors on site

In addition to the work undertaken by the Contractor, other works (services) will be undertaken by other contractors during the same period.

The Contractors shall liaise with one another and so organise their operations in such a manner that will permit the Works in their entirety to proceed without delay and without damage to the works.

No separate payment will be made for liaising and general planning and co-ordination of construction activities.

PS12.10 Management of the environment

Respect for the environment is important for this contract. The environmental control of the site shall be governed by sound Environmental Management Practices, which should provide inter alia for:

- (a) The Contractor must allow for the satisfactory combating of dust and noise nuisance throughout



the contract length during construction.

- (b) The Contractor must make provision for the prevention of excessive erosion and siltation throughout the Contract and in particular on adjacent land. Should excessive erosion and/or siltation take place outside the road reserve as a direct result of the Contractor's construction activities it will be the Contractor's responsibility to make good the erosion/siltation to the satisfaction of the landowner and the Engineer, all at the cost of the Contractor.
- (c) No littering by construction workers shall be allowed. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer.
- (d) Adequate provision shall be made for temporary toilet requirements in construction areas. Use of the veld for this purpose shall not, under any circumstances be allowed.
- (e) Streams, rivers, and dams shall be protected from direct or indirect spillage of pollutants, such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate tailings, wash water, organic materials and bituminous products. In the event of spillage, prompt action shall be taken to clear the affected area. Emergency measures in the event of spillage must be set out and the responsible person made aware of the required action. The construction of temporary and or permanent dams must be done with the necessary approvals from the Department of Water Affairs and Forestry and Environmental Affairs and Tourism.
- (f) Bituminous and/or other hazardous products shall not be spoiled on site and may only be disposed of in licensed authorised disposal facilities.
- (g) Control of invader species of plants.
- (h) Clearing shall be limited to the road prism and, where applicable, detours, which shall be sited in consultation with the Engineer and the local communities.

PS12.11 Site meetings and procedures

Over and above the requirement of bi-weekly site meetings, weekly technical meetings will be held. The meetings will be held to discuss technical issues and monitor progress.

The contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site memoranda book, a complete set of contracts working drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.

PS12.12 Management meetings

Contractor will be required to hold management meetings with site management staff and sub-contractors on a weekly basis and to be held on Mondays at a time convenient to all concerned, to discuss planning, co-ordination and scheduling of tasks planned for the week ahead also to discuss health and safety amongst other things. A brief description of activities and works planned for the week will be provided to the Project Manager every Monday.

PS12.13 Guarantees

Contractor to provide a guarantee in accordance with the Condition of Contract in the prescribed format and to the sum as stipulated.

PS12.14 Insurance provided by the employer

Insurance of "The Works"



The Employer will not insure the Works and the Contractor will be responsible for insurance of the works in terms of the Conditions of Contract.

PS12.15 Payment certificates

Payment certificates to be submitted by the contractor to the Employer by the 20th of each month. The Employer will verify and approve the certificate. The target date for submission of payment certificates to employer will be the 25th of each month. There could be financial cut off dates for payment submission to Foskor and these need to be established and confirmed prior to first payment submission. The Employer be make payment within 30 days after submission of an approved invoice.

Details of measurements, proof of payment for items contained in provisional sums, proof of ownership of materials on site and documentation pertaining to contract price adjustment and special materials, are required as substantiation of claims for payment.

PS12.16 Electronic payments

Payments of approved payment claims will be made electronically upon submission of the contractor's banking details.

PS13 HEALTH AND SAFETY

Health and safety requirements and procedures.

PS13.1 General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No. 85 and Amendment Act No. 181 of 1993, and the OHS Act 1993 Construction Regulations 2014 issued in 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in Section 7, Form 7.2.

PS13.2 Health and Safety Specifications and plans

- (a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification is included in the tender document in Section 1, Part C.

- (b) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender his own documented Health and Safety Plan he proposes to implement for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 7 to 28;
- (ii) pro-active identification of potential hazards and unsafe working conditions;
- (iii) provision of a safe working environment and equipment;
- (iv) statements of methods to ensure the health and safety of subcontractors, employees and



visitors to the site, including safety training in hazards and risk areas (*Regulation 5*);

- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 6 and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

PS13.3 Cost of compliance with the OHSA Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.



PART B: VARIATIONS AND ADDITIONS TO THE STANDARDIZED SPECIFICATIONS**SUB-CLAUSE REFERENCE**

The prefix "PS" indicates an amendment to the relevant SANS 1200 specification. Additional specifications will be numbered sequentially following on from the relevant SANS 1200 clause.

PSA GENERAL**PSA3 MATERIALS****PSA3.1 QUALITY**

Substitute the second sentence of the first paragraph of A 3.1 with the following:

"Where applicable and/or where specified, materials shall comply with the relevant SABS specifications. Substitute the second paragraph with the following:

The Contractor is responsible for the cost of all testing to ascertain that the materials comply with the specified minimum requirements of the relative materials and no additional payment will be made for such testing.

The Contractor shall conduct all quality control tests in the shortest possible time and shall submit to the Engineer authenticated copies of all quality control tests conducted within 24 hours of completing the tests and shall deliver samples of all materials to the Engineer for check testing. The frequency, number and volume of samples will be determined by the Engineer."

The Contractor shall inform the Employer of any control testing to be done at least 48 hours before such tests are required and must allow in his program for the time necessary for the tests and the processing of the results thereof.

The Employer will take samples from stockpiles or from construction material on site. Samples shall not be delivered direct to the Employer's office.

The Contractor shall be responsible for the cost of failed test samples and control testing.

PSA3.3 ORDERING OF MATERIALS

Add the following additional Clause:

The quantities set out in the Schedule of Quantities have been carefully determined from calculations based on data available at the time and should therefore be considered to be only approximate quantities. The liability shall rest entirely and solely with the Contractor to determine before ordering, the required types and quantities of the various materials required for the completion of the Works in accordance with the specifications and the Drawings issued to the Contractor for construction purposes.

Any reliance placed by the Contractor on the estimated quantities stated in the Schedule of Quantities issued for tendering purposes, or measurements made by the Contractor from the drawings issued for tendering purposes, shall be entirely at the Contractor's risk, and the Employer accepts no liability whatsoever in respect of materials ordered by the Contractor on the basis of tender documents.

PSA3.4 SOURCES OF MATERIALS

Add the following additional Clause:



Granular materials requirements shall be met from the following sources:

- a) Natural Gravel (G5) : Approved commercial sources

The Contractor shall ensure that:

- i) Written approval of the source is obtained prior to commencement of construction.
- ii) That the quality and consistency of the materials are routinely checked, in accordance with the specifications, and the test results are submitted to the Engineer within 24 hours of completion of the tests, which are to be conducted in the minimum time period applicable to the test in question.

Any out of specification materials incorporated into the works shall be removed and replaced or modified, as instructed by the Engineer, at the Contractor's cost and the Contractor shall also bear the cost of any testing or investigations arising out of the use of materials not complying to the specifications.

No overhaul shall be payable on materials from designated and/or commercial sources.

PSA5 CONSTRUCTION

PSA5.1 SURVEY

PSA5.1.1 Setting out of the works

Substitute the first sentence in A5.1.1 with the following:

Setting out of the works is the sole responsibility of the Contractor and shall be done from setting out points provided by the Employer.

Note that no survey of the area has been carried out by a land surveyor yet.

The Contractor shall however, within one (1) day after the site has been handed over to him, confirm himself that the setting out dimensions are correct. Any discrepancy shall immediately be reported in writing to the Employer.

Any costs or subsequent costs arising from discrepancies which had not been reported to the Employer within the aforementioned period shall be the sole responsibility of the Contractor.

Setting out of the works will not be measured and paid for directly, and compensation for the work involved in setting out shall be deemed to be covered by the rates and process tendered and paid for the various items of work included under the contract.

PSA5.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES

Add the following paragraph:

The Contractor shall as soon as possible after handing over of the site, commence with the detection of existing services, continue with it without interruption and finalize it at least 7 days before excavation starts at that particular section.

PSA5.5 DEALING WITH WATER ON WORKS

The Contractor's attention is specifically drawn to the requirements of sub-clause 5.5 in that adequate measures are to be implemented at all times to ensure that the works are kept dry for their proper execution. This will entail, but not necessarily be restricted to, any or all of the following measures:



- a) Ensuring that at all times, the site is graded such that surface water can drain and no standing water remains on the site.
- b) Ensuring temporary measures are put in place to accommodate stormwater runoff from roads or related infrastructure so as to keep works dry during construction activities.

PSA5.6 POLLUTION

Add the following at the end of the sub-clause:

"The location of this Project within an existing production facility requires greater emphasis on noise, dust and silt pollution control. The Contractor is referred to the relevant clauses in this regard under the different sections of SANBS 1200 viz.:

SANS1200	A4.1	Noise of Plant
SANS1200	A5.6	Pollution
SANS1200	D5.1.3	Stormwater
SANS1200	D5.1.4	Nuisance
SANS1200	D5.2.2.3	Spoil

PSA6 TOLERANCES

PSA6.1 DEGREES OF ACCURACY

Add the following paragraph:

Degree of Accuracy II as specified, shall apply to all work under this Contract, except where specified otherwise on the drawings for a particular section of the Works.

PSA7 TESTING

PSA7.1 PRINCIPLES

PSA7.1.1 Checking

Add the following paragraph:

Every completed layer or section of the Works shall be subject to check testing by the Contractor. Once the contractor is satisfied with the standard of his works, the Employer must be requested by the Contractor to perform acceptance testing for the particular section. The Contractor shall provide the Employer with the results of his check testing indicating that the work is to specification.

Failure by the Contractor to notify the Employer or to provide the required test results may be grounds for withholding of payment for the associated work and for all subsequent work which would be affected by the failure of the Work to be tested.

The Employer will be under no obligation to the Contractor to perform the tests. If the Employer elects not to perform an acceptance test after notification by the contractor, he will issue the Contractor with a written instruction to proceed with the relevant works without the acceptance test being performed.

Nothing contained in this clause will relieve the Contractor of his responsibilities under the specification, or in any way limit the tests that the Employer may call for, or perform in terms of the specification.

The contractor shall be responsible for the execution of all concrete quality control and compaction tests, where necessary. The contractor may use his own laboratory, if approved, or an approved independent laboratory for the



execution of the abovementioned tests.

All quality control tests to ensure that work is done according to specifications, will be for the contractor's account. It is assumed that these costs are included in the rates of items that are subjected to quality control tests.

All tests results shall as soon as available immediately be given to the Employer for approval.

PSA7.2 APPROVED LABORATORIES

Add the following paragraph:

A laboratory approved by the Employer shall do the acceptance testing. The Employer requires forty eight hours' notice from the contractor in order to perform the relevant acceptance test. Failure by the Contractor to notify the Employer or to provide the required information or, where specified, to perform the required test, may be grounds for withholding of payment for the associated work and for all subsequent work which would be affected by the failure of the work to be tested.

All acceptance testing by the Employer shall be paid for by the contractor. The costs of such tests that meet the specification requirements will be reimbursed to the Contractor in the monthly payment certified.

A provisional Sum has been provided in the Schedule of Quantities to allow for the cost of such testing. The contractor shall make due allowance for testing procedures in his construction programme.

PSA7.4 STATISTICAL ANALYSIS OF CONTROL TESTS

Substitute A7.4 with the following:

Test results shall not be evaluated by statistical methods. All results shall comply with the specified minimum requirements of the materials concerned.

PSA8 MEASUREMENT AND PAYMENT

PSA8.3.3 As-built drawings (additional obligation)

The Contractor is to provide, on prints supplied by the Employer, co-ordinate values in addition to platform levels, constructed during the course of the contract. This information must be certified as a true and correct reflection of the finished works. The price tendered for carrying out such work shall be inclusive of all costs, albeit indirect or direct, to the Contractor. The survey need to be carried out by a suitably qualified Surveyor.

No additional payment shall be made for this service and all costs related thereto shall be deemed to be included in the scheduled item in the Bill of Quantities.

PSA8.8.4 Existing services

Add the following to A8.8.4:

Where the Contractor is responsible for the cost of repairs carried out by the Employer or others, the costs will be recovered by means of a deduction from the Contractor's monthly payment certificate. The Employer will attend to the payment of monies due to others.



PSC SITE CLEARANCE**PSC3 MATERIAL****PSC3.1 DISPOSAL OF MATERIAL**

Substitute the first sentence of C3.1 with the following:

Material obtained from clearing and demolition of structures shall be disposed of at the municipal dump site or an appropriate dump site located by the Contractor and approved by the Employer.

PSC5 CONSTRUCTION**PSC5.9 Dust Control**

Add the following new sub-clause:

The contractor shall be responsible for controlling dust and shall be liable for all claims arising from dust nuisance."

PSD EARTHWORKS**PSD3 MATERIAL****PSD3.1 CLASSIFICATION FOR EXCAVATION**

Notwithstanding Clause 3.1 of SANS 1200D, no classification will be made for either intermediate or boulder excavation. The classification for excavation will be as follows:

1.1 Rock excavation : All material that cannot be removed otherwise than using compressors and jack hammers, or alternatively by blasting.

1.2 Soft excavation : All material that is not classified as rock excavation

Payment for rock excavation will only be approved if the Employer has classified the excavation as such in writing before commencement of the excavation under Clause 1.1 above.

PSD3.3 SELECTION**PSD3.3.1 General**

Any imported material that do not comply with the minimum requirements for the respective layers, shall be removed and replaced with suitable material.

The Contractor shall deal in such a way with materials from all excavations for the removal of unsuitable material so as to ensure that usable material is not contaminated with unsuitable material.

If usable material is contaminated, such contaminated material shall be removed and replaced with suitable material, all at the Contractor's expense. No additional payment shall be made in respect of this and all relevant costs shall be deemed to be included in the tendered rates.

All unsuitable material shall be removed prior to importing fill material to such areas.

PSD5 CONSTRUCTION

PSD5.1 PRECAUTIONS**PSD5.1.2 Existing services****PSD5.1.2.2 Detection, location and exposure**

Add the following paragraph:

If existing services are not shown on the drawings but the existence thereof can be reasonably expected, the Contractor shall, in conjunction with all relevant Foskor representatives determine the exact depth and location of such services before the commencement of construction.

After locating the exact position of services, whether indicated on the drawings or not such services shall be deemed to be known services and the Contractor shall be liable for all costs and subsequent costs arising from the damage thereof as a result of the Contractor's activities. These services must also be indicated on the "As Built" drawings.

PSD5.1.2.4 Negligence

Where a service is damaged due to the Contractor's negligence, he should bear the full costs of repairs to the service. These repairs will be carried out by the relevant authority, or at their decision, by the Contractor to the satisfaction of the relevant authority.

PSD5.1.3 Stormwater and groundwater

Add the following to clause:

The Contractor shall properly deal with and dispose of water to ensure that the Works are kept sufficiently dry for their proper execution.

Under no circumstances will any claim be entertained for dewatering, or waterlogged conditions. The Contractor will control all surface and sub-surface water during construction, and the cost of such, will be deemed to be included in the rates tendered for excavations.

PSD5.1.4 Nuisance**PSD5.1.4.1 Dust nuisance**

Add the following paragraphs:

The Contractor is responsible for dust control and is liable for all claims that may result from dust nuisance on all parts of the site and at all times from the date of handing over of the site to the completion date of the contract. No payment regarding the above-mentioned will be made and all costs shall be deemed to be covered by tendered rates. Also refer to the Environmental Management Plan in this regard.

The Contractor shall take the necessary precautions to prevent dust/sand blowing onto or into the existing factory facilities during the construction period. Where deemed necessary stabilization will be specified, but during construction the Contractor will be responsible for keeping the sand damp to prevent wind erosion. Provision for keeping soil damp must be included in the Contractor's tender rates for the control of pollution under the Preliminary and General section.

PSD5.1.6 Road traffic control

Add the following paragraphs:

- a) Sufficient road signs must be erected in such a way that road users will be warned in time of works.



- b) Bypasses and/or road signs shall be provided and/or erected at all locations where the free flow of traffic is obstructed and shall be approved by the Employer before the commencement of construction.
- c) Danger tape must be put up between drums and tied around the drums.
- d) Drums may not be filled with stones. The spacing of drums must be in such a way (maximum 5 m) that they are visible from all directions.
- e) Sufficient safety measures must be utilized for pedestrians.

PSD5.2 METHODS AND PROCEDURES**PSD5.2.2 Excavation****PSD5.2.2.3 Disposal**

Substitute the second sentence of this clause with the following paragraph:

All surplus and unsuitable material shall be disposed of at the municipal dumping site in Empangeni, or another site approved by the employer.

PSD5.2.3 Placing and compaction

The minimum compaction requirement for G5 Natural Gravel to be 95% of MOD AASHTO density. Non-cohesive soil to 100% of MOD AASHTO density.

PSD5.2.5 Transport for earthworks**PSD5.2.5.1 Free haul**

Add the following paragraph:

The movement of cut material will be taken as free haul, with no additional payment for loading, handling Haulage and placement in the final position.

The freehaul distance applicable will be 2km.

PSD5.2.5.2 Overhaul**PSD5.2.5.2.1 Limited overhaul**

No allowance will be made for limited overhaul.

PSD 5.2.5.2.2 Long overhaul

No allowance will be made for long overhaul.

PSD6 TOLERANCES**PSD6.1 POSITION, DIMENSIONS, LEVELS, ETC**

Add the following paragraph: Degree of

Accuracy II shall apply.



PSG CONCRETE - STRUCTURAL**PSG3 MATERIALS****PSG3.2 CEMENT****PSG3.2.1 Applicable specification**

The Contractor shall only use ordinary Portland cement.

Cement type CEM 1, Strength Class 42,5R or 32,5N is acceptable.

PSG3.4 AGGREGATES**PSG3.4.1 Applicable specification**

Add the following paragraphs:

The use of Basaltic coarse aggregate will not be permitted, unless otherwise agreed upon by the Engineer. The use of beach sand or sand from saline river mouths will only be permitted if the Contractor can prove, through laboratory tests, the suitability thereof for high strength concrete.

PSG3.4 REINFORCEMENT

Reinforcement marked "Y" on the schedule shall be High Yield (characteristic strength 450 Mpa) deformed bars, complying with SABS 920.

Reinforcement marked "R" on the schedule shall be mild steel (characteristic strength 250 Mpa) deformed bars, complying with SABS 920.

PSG5 CONSTRUCTION**PSG5.5 CONCRETE****PSG5.5.8 Curing and Protection:**

If the use of curing compound is accepted all exposed concrete shall be cured by coating surfaces with a fugitive dyed resin based curing compound. The curing compound shall be in accordance with ASTM C309 Type 1. Minimum application ration shall be 0,2 litres/m².

PSG6 TOLERANCES**PSG6.1 GENERAL**

The work shall be finished to a degree of Accuracy 2.

PSG7 TESTS**PSG7.2 TESTIG****PSG7.2.5 Ready-mixed concrete**

Should the contractor decide to use ready mixed concrete, the Contractor shall take test cubes of each batch delivered to site, regardless of any samples that may have been taken by the concrete supplier at the batching plant.

