

INFRASTRUCTURE REPAIR – BUND WALLS AND FLOORS: INSTALLATION OF ACID RESISTANT LINING AT VARIOUS PLANTS

Tender no: FTP /23/MN

Cost Code:
PC3013427.1195.75100

Revision¹: 0.1 see legend at bottom of page

Revised date: 11/07/2023

NAME	TITLE	Empl. no	SIGNATURE	DATE
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COMPILED - RECOMMENDATION

Nhlakanipho Myeni	Project Supervisor	503971		11/09/2023
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COMPREHENSION AND ACCEPTANCE

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.

Wandile Mhlongo	Engineer, Projects	503064		11/09/2023
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Comments:

APPROVAL TO PROCEED

Precious Buthelezi	Snr. Manager Production Sulphuric	22171		11/09/2023
Sagie Moodley	Snr. Manager Phosphoric Acid Plant	504385		15-9-23
Blessing Mbuyazi	Snr. Manager Projects	504427		
S Mbuyazi	G.M Operations, Acid Division	500441		

Comments:

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.

INDEX

Contents

Section A: INVITE AND TENDER INSTRUCTIONS	3
A.1 Invitation to tender	4
A.2 Return of Tender Documents	4
A.3 Site Inspection	5
A.4 Examination and Completion of Documents	6
A.5 Contract Documents Priority	6
A.6 Alterations by Tenderer	6
A.7 General	7
Section B: FORMS OF TENDER TO BE SUBMITTED	8
B.1 Schedule of Rates or Summary of Bill of Quantities	8
B.2 Initial Project Programme of Works, Work Methodology and Cash Flow	10
B.2.1 Project Completion and Handover; Defects Liability Period	11
B.2.2 Initial Program to be Submitted	11
B.2.3 Table with Milestones to be Submitted	11
B.3 Schedule of Key Personnel on the Project	12
B.4 Schedule of Similar Contracts Undertaken	13
B.5 Schedule of Labour Rates for the Works:	14
B.6 Schedule of Equipment for the Works	15
B.7 Site Inspection Certificate – To be signed by Tenderer	16
Section C: SCOPE OF WORKS	17
C.1. Background, Present Situation and Proposed Solution	17
C.1.1 Background	17
C.1.2 Present Situation	17
C.1.3 Proposed Solution: Reason for this Tender	17
C.3. Foscok Specifications	19
C.4. Project Requirements	21
C.5 Plant Data	21

C.6. Drawings and Technical Data	21
C.7 Scope of Work	22
C.7.1 Scope Of Work - Extent	23
C.7.2 Site Conditions	23
C.7.3 Services which are known to exist on the site.....	24
7.3.1 Foskop Supplied Services.....	25
7.3.2 Successful Tenderer (Contractor) Responsibilities	26
C.7.4 Certification by Recognized Bodies.....	26
C.7.5 Requirement for the termination, diversion, or maintenance of existing services	26
C.7.6 Nominated Sub-Tenderers.....	27
C.7.7 Invoicing and Payment.....	27
C.7.8 Standing Time	27
C.7.9 Progress of Works	28
C.7.10 Penalty	28
C.7.11 Claims: Extension of Time for Completion, Additional Payments or Compensation.....	28
C.7.12 Cancellation of the Contract by Foskop (Pty) Ltd.....	29
C.7.13 Urgent remedial work.....	30
C.8 Foskop Safety Documents to be submitted, Environmental and Site Management	30
C.8.1 SHREQ Requirements.....	30
C.8.2 Environmental Management Specifications	30
C.9 OHSA 1993 Health and Safety Specification	30
C.10. Applicable General Conditions of Contract	32
C.11. Quality Management	32
C.12. Summary of Documents to be Submitted with this Tender:	33
Section D – Bill of Quantities and Evaluation Criteria.....	34

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 **infrastructure repair-Bund walls and floors: installation of acid resistant lining at various plants.**

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	Category Buyer
For the attention of	Mphumeleli Ngqulunga
Telephone	035 902 3115
Fax	N/A
Cell no	
Email	MphumeleliN@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. FTP /23/MN	The Manager Procurement
Contract Title: INFRASTRUCTURE REPAIR-BUND WALLS AND FLOORS: INSTALLATION OF ACID RESISTANT LINING AT VARIOUS PLANTS	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 able 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 Foskop (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 Divisional Lead-Procurement (Acid), 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.
- Foskop 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 **Divisional Lead-Procurement (Acid)**.

A.3 Site Inspection

An official Site inspection shall be held at the **Foskop, Richards Bay** site 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

No

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, programme 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 person¹ 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.
 - c) Commit any act or omission that would be contrary to the Maintenance and Promotion of Competition Act 96 of 1979 and notices and regulations published in terms of that Act,

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:				
1.1	INSTALLATION OF ACID RESISTANT LINING				A1
1.1.1	Section 1: P&G's				A2
1.1.2	Section 2: A-Plant Acid Circulation				A2
1.1.3	Section 3: B-Plant Acid Circulation				
1.1.4	Section 4: C-Plant Acid Section				
1.1.5	Section 5: Sulphuric Tank Farm				
1.1.6	Section 6: Trench from Demin Plant to A&B common sump				
1.1.7	Section 7: Phosphoric Acid Plant R&F				
1.1.8	Section 8: New Phosphoric Plant Concentration				
1.1.9	Section 9: E-Tank Farm				
1.1.10	Section 10: Devilliers Sump				
	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 there 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.



TENDER DOCUMENT

Tender no: FTP /23/MN

Page 9/ 38

- 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 Programme 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: 4 weeks from tender close date)

Within 7 days from receipt of purchase order

Snagging/Modification List Date

24 weeks from the receipt of purchase order

Completion of Works/Final Handover

(Guide: project duration)

28 weeks from the receipt of purchase order

Defects Liability Period (Project handover)

12 Months from the project completion and handover

Retention:

10%

TO BE SUBMITTED WITH THIS TENDER

- 1 Priced Bill of Quantities.
- 2 Initial programme (Bar Chart/Gantt Chart).
- 3 Mortar, fibre glass and resin MTDS/PDS (product/material technical data sheet).
- 4 Quality control plan (QCP).
- 5 Project specific method statement.
- 6 Traceable record of similar previous work undertaken.
- 7 Refer to B3- Schedule of key personal on the project.
- 8 Refer to B4- Schedule of similar contracts undertaken.
- 9 Refer to B5- Schedule of Labour rates for the works.
- 10 Refer to B6- Schedule of equipment for the works.
- 11 CIDB Grade 5 SD certificate.
- 12 Serviceability life span guarantee for acid resistant lining system for concrete.

OTHER IMPORTANT NOTES

- 'Defects Liability Period' shall be that period in force for Foskor to call upon the Contractor to rectify at no cost to Foskor (Pty) Ltd any defects of workmanship, quality or practice; and shall remain in force **in parallel with the Retention 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 Foskor (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 Foskor (Pty) Ltd.

- The Tenderer shall within **7 (seven)** days of contract award submit a final detailed work methodology and programme, and the final work methodology shall be verified and approved by Foskor (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 compile a programme (use MS Projects or MS Excel to compile the Project Program).

B.2.1 Project Completion and Handover; Defects Liability Period

Unless otherwise agreed, Project Completion (handover), shall be deemed to be from date of Foskor 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 Foskor 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 Foskor a Project Complete/Handover Certificate, which receipt shall define and signify the commencement of Defects Liability Period.

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 the 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.

[illegible]

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.

[illegible]

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.

[illegible]

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: _____

Section C: SCOPE OF WORKS

C.1. Background, Present Situation and Proposed Solution

C.1.1 Background

Foskor Acid Division, located in Richards Bay is a manufacturer of Sulphuric Acid, Phosphoric Acid and Granular Ammonia Fertilizer. Each product is manufactured at a designated plant location under separate management which makes up the Sulphuric Plant, Phosphoric Plant and Granulation Plant.

Concrete structures and elements are subjected to harsh environmental conditions emanating from the heavily toxic processes that impact infrastructure through the atmosphere as well as process overflows during times of plant breakdowns.

Civil structural defects have generally been identified across the emergency facilities such as bund areas across Foskor acid division plant. A significant number of damaged bund walls and bund floors are no longer serving their intended purpose and translates to risk of adverse environmental impact, risk to health and safety of people and property, and risk to production interruptions.

C.1.2 Present Situation

Acid resistant liners for areas prone to Sulphuric and Phosphoric acid spillages are imported into the country from international suppliers. Foskor is currently repairing the concrete bund floors and in sections where concrete repairs have been completed such as Sulphuric B-plant acid circulation area now requires installation of acid resistant lining. Concrete repair at Sulphuric acid A-plant is expected to be completed on 04 August 2023 and acid resistant liner will be required. Other areas that require acid lining are as follows:

- Sulphuric Tank Farm
- Trench from Demin plant to A&B common sump
- Phosphoric acid plant R&F
- New Phosphoric Concentration Plant
- De Villiers sump area
- E-Tank Farm
- Sulphuric A-plant acid circulation
- Sulphuric B-plant acid circulation
- C-plant acid section

C.1.3 Proposed Solution: Reason for this Tender

It is proposed that Foskor appoint a suitable contractor to install acid resistant lining at various plants. Foskor has procured acid resistant tiles and will be free issued to the contractor that will be appointed to do installation work.

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
SANS 1200	Civil Construction Work	Latest
SANS 10100	Structural use of concrete	Latest
S28 NEMA (1998)	Duty and care of environmental degradation	Latest

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

C.3. Foskor Specifications

All work listed in this scope of work shall be completed in accordance with the latest 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	
FM002	Rubber Lining of Vessels and Piping	Latest	
FM003	Welding of Fabricate Equipment	Latest	
FM432	Insulation of Vessels and Piping	Latest	
FQ001	General Engineering Quality Requirements	Latest	
FQ002	Non-Destructive Testing	Latest	
FS001	Specification for the Fabrication & Erection of Structural Steel Work	Latest	
FS002	Specification of Roof and Side Cladding	Latest	
FV001	Requirements Vessels, Tanks and Heat Exchangers	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	
MC002	Scope of Corrosion Protection Richards Bay	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	
MC010	Painting Tank Grillage	Latest	
SS-000000-C-006	General specification for concrete construction	Latest	Yes
SS-000000-C-007	Concrete specification	Latest	Yes
SS-000000-C-012	Grouting	Latest	Yes
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	
ASTM C-279	Standard Specification for Chemical-Resistant Masonry Units	Latest	Yes
ASTM C20	Standard Test Methods for Apparent Porosity, Water Absorption, Apparent Specific Gravity, and Bulk Density of Burned Refractory Brick and Shapes by Boiling Water	Latest	Yes
ASTM C133	Standard Test Methods for Cold Crushing Strength and Modulus of Rupture of Refractories	Latest	Yes
ASTM C373	Standard Test Method for Water Absorption, Bulk Density, Apparent Porosity and Apparent Specific Gravity of Fired Whiteware Products	Latest	Yes
DIN 28062	Building Materials for Brick Lining; Classification, Properties, Testing	Latest	Yes
DIN EN 993-1	Determination of Bulk Density, Apparent Porosity and True Porosity	Latest	Yes
DIN 51067	Determination of the Crushing Strength at Room Temperature (CCS) on Refractory Materials	Latest	Yes
DIN 51068 Part 1	Determination of the Resistance Against Thermal Shock	Latest	Yes
DIN 51102 Part 2	Determination of the Resistance Against Sulphuric Acid	Latest	Yes

Where there is contradiction between the Foskor Specification and Legislation, Standards and Codes of Practice, Foskor specifications must take precedence. It is the responsibility of the Tenderer to highlight to Foskor the contradictions on the above.

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 Tenderer 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 Tenderer 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 installation of acid resistant lining nature and requires the supply of (including but not limited to):

1. Materials
2. Specifications
3. Tools
4. Labor
5. Consumables
6. Transport

C.5 Plant Data

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

C.6. Drawings and Technical Data

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

C.6.1 Drawings:

SITE PLAN DRAWINGS		
Drawing No.	Title / Description	Revision
	Hand Sketch	

C.6.2 Technical Data:

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 Tenderer must certify all documentation and drawings for correctness and conformance, specifying which standards and regulatory acts these conform to.

C.7 Scope of Work

The scope of work calls for a suitable CIDB grade 5 SD contractor to execute the work and includes for the following:

The Contractor to supply as per the complete Bill of Quantities submitted and which includes but not limited to prepare concrete floor surface, supply material such as fiber glass membrane, mortar and install 18mm/25mm thick high-silica acid resistant bricks. The supply of any equipment/material that is suggested by the Contractor must be approved by Foskop.

The contractor to provide with his tender method of repairs and work program that will be within the provisioned quantities for repairs. The period of installation work covers the hand over to the successful supplier and the final completion of the repair work, including hand over back to Foskop. 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 Foskop. The Contractor shall ensure that all 'acceptance approvals' are received from Foskop (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 Foskop (Pty) Limited and the nominated Contractor.

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 Foskop.

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 **FTP /23/TZ** handed out at the site inspection held on (date) _____, which is generalized as follows: **INFRASTRUCTURE REPAIR-BUND WALLS AND FLOORS: INSTALLATION OF ACID RESISTANT LINING AT VARIOUS PLANTS**

The item list on the scope contains the following:

- Inspect and accept existing concrete substrate /surface.
 - Preparation of the concrete surface at Sulphuric acid plant and Phosphoric acid plant.
 - Design, supply and apply acid resistant under tile membrane suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature to be applied on concrete surfaces.
 - Design, supply and install acid resistant mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature.
 - Install 18mm/25mm high silica acid resistant bricks that will be supplied by Foskor.
 - Design, supply and apply acid resistant under tile membrane suitable for withstanding 56% concentrated phosphoric acid to be applied on concrete surfaces.
 - Design, supply and install acid resistant mortar suitable for withstanding 56% concentrated phosphoric acid to be applied on concrete surfaces.
 - Install 20mm, 40mm & 65mm carbon bricks that will be supplied by Foskor.
-
1. Until otherwise notified, Foskor (Pty) Ltd have designated Mr. Nhlakanipho Myeni (Project Supervisor), Mr. Humphrey Mabunda (Project Supervisor) and Mr. Wandile Mhlongo (Project Engineer) to act as Foskor representatives, and they are authorized to give instructions and to provide information to you on Foskor's behalf.
 2. 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.
 3. Foskor's Health & Safety Representative will assist and guide with all matters relating to the Health & Safety specifications and Construction Regulations relating to this assignment.
 4. A pre-requisite of this contract is that the supplier confirms that he is professionally registered with the relevant board and that he shall carry the necessary professional/construction indemnity insurance cover to the extent of the liabilities contemplated.

C.7.2 Site Conditions

The site is located at **21 John Ross Highway, Foskor Richards Bay 250m from main entrance gate**. The Tenderer is deemed to have viewed the site and to have thoroughly acquainted himself with the extent, nature and conditions affecting the work to be done before submitting his tender.

The access to the site is free, however there are live equipment such as tanks and pipes in some sections and tanks. The contractor will be required to wear acid resistant suits (Tychem 3000) to work around acid circulation areas and these acid suits must be included when submitting quotation.

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

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:

- Steam pipes
- Air pipes
- Acid pipes
- Water pipes
- Electrical cables

7.3.1 Foskop Supplied Services

Foskop (Pty) Ltd shall be responsible for:		Applicable:
1	Supply a copy of the relevant Foskop 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 Foskop 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 Foskop on intervals (usually at the beginning and end of contract) defined by Foskop	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. - Foskop will at its own discretion (if request is approved) allocate a site establishment area, however Foskop 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 Foskop'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 Foskop at its discretion be of the opinion that it be necessary. Cost associated with such cannot be claimed from Foskop (Pty) Ltd.	Yes
8	Assist in issuing of work clearances and HIRA certificates.	Yes

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) and tychem acid resistant suits.	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. ECSA, NHBRC, 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 and 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 invoice.

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 of time 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 Foskor (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, Foskor (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 Foskor (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 Foskor (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 Foskor (Pty) Ltd Project Representative
- ii. Submit **written notice** to the Foskor (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 Foskor (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 Foskor (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 Foskor (Pty) Ltd Project Representative.
- iv. In the event of failure to comply to any of the provisions, the claim would not be accommodated and Foskor (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 sequestrated (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 No.85 of 1993 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. Site specific induction to be completed at control rooms prior to obtaining plant access.
- 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 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% Polyester 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 always rotating orange lights on.
- 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 Clinix Sister at Foskor (Pty) Ltd Clinic on 035 902 3146.**

- 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.

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).

IMPORTANT NOTE

The above is a summary of some of 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 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.11.1 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 (Contractor) to give Foskor (Pty) Ltd timely notice of hold and witness points requiring their intervention.

C.12. Summary of Documents to be Submitted with this Tender:

1. Priced Bill of Quantities.
2. Initial programme (Bar Chart/Gantt Chart).
3. Mortar, fibre glass and resin MTDS. (Product/Material Technical Data Sheet)
4. Quality control plan (QCP).
5. Project specific method statement
6. Traceable record of similar previous work undertaken.
7. Refer to B3- Schedule of key personal on the project.
8. Refer to B4- Schedule of similar contracts undertaken.
9. Refer to B5- Schedule of Labour rates for the works.
10. Refer to B6- Schedule of equipment for the works.
11. CIDB Grade 5 SD certificate.
12. Serviceability life span guarantee for acid resistant lining system for concrete.

Section D – Bill of Quantities

		PROJECT NAME: <i>INSTALLATION OF ACID RESISTANT LINING AT VARIOUS PLANTS</i> PROJECT NUMBER: CONTRACT NUMBER: <i>FTP /23/MN</i> PROJECT LEADER: <i>Nhlakanipho Myeni</i> PROJECT CLIENT: <i>Sulphuric and Phosphoric Acid Plant</i>			
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION 1: PRELIMINARY AND GENERAL				
1.1	Foskor Plant Access: Medicals and Induction	No.			
1.2	Provide adequate safety control measures for work area. Make provision for the following but not limited to: • Barricades around work area and in close proximity to live machinery. • Safety/warning signage. • Continuous housekeeping.	Week	24		
1.3	Tychem 3000 S acid resistant suits and/or rain suits	No.			
1.4	Controlling, diversion and pumping of water/contaminated effluent from work area.	days	60		
1.5	PPE	No.			
1.6	Provisional rate for standing time	days	1		
SUB-TOTAL OF SECTION 1 CARRIED FORWARD TO SUMMARY				R	

FOSKOR		PROJECT NAME:		INSTALLATION OF ACID RESISTANT LINING AT VARIOUS PLANTS		
		CONTRACT NUMBER:		FTP /23/MN		
		PROJECT LEADER:		Nhlakanipho Myeni		
		PROJECT CLIENT:		Sulphuric and Phosphoric Acid Plant		
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
SECTION 2: SULPHURIC A-PLANT ACID CIRCULATION AREA						
2.1	PREPARATION AND INSTALLATION WORK					
2.1.1	High pressure clean and neutralise exposed concrete wall and floor surfaces with lime. Lime to be supplied by Foskor but to be collected from Foskor Procurement stores and transported to site by Supplier.	m ²	422			
2.1.2	Resolve concrete defects-protruding tolerance <20mm	m ³	2.5			
2.1.3	Design, supply and apply acid resistant under tile membrane suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature to be applied on concrete surfaces.	m ²	422			
2.1.4	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 18mm acid resistant bricks for horizontal and vertical surfaces.	m ²	211			
2.1.5	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 25mm acid resistant bricks for horizontal and vertical surfaces.	m ²	211			
SUB-TOTAL OF SECTION 2 CARRIED FORWARD TO SUMMARY				R		
SECTION 3: SULPHURIC B-PLANT ACID CIRCULATION AREA						
3.1	PREPARATION AND INSTALLATION WORK					
3.1.1	High pressure clean and neutralise exposed concrete wall and floor surfaces with lime. Lime to be supplied by Foskor but to be collected from Foskor Procurement stores and transported to site by Supplier.	m ²	368			
3.1.2	Resolve concrete defects-protruding tolerance <20mm	m ³	1.8			
3.1.3	Design, supply and apply acid resistant under tile membrane suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature.	m ²	368			
3.1.4	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 18mm acid resistant bricks for horizontal and vertical surfaces.	m ²	184			
3.1.5	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 25mm acid resistant bricks for horizontal and vertical surfaces.	m ²	184			
SUB-TOTAL OF SECTION 3 CARRIED FORWARD TO SUMMARY				R		

SECTION 4: C-PLANT ACID SECTION					
4.1	PREPARATION AND INSTALLATION WORK				
4.1.1	High pressure clean and neutralise exposed concrete wall and floor surfaces with lime. Lime to be supplied by Foskop but to be collected from Foskop Procurement stores and transported to site by Supplier.	m ²	416		
4.1.2	Resolve concrete defects-protruding tolerance <20mm	m ³	2		
4.1.3	Design, supply and apply acid resistant under tile membrane suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature.	m ²	416		
4.1.4	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 18mm acid resistant bricks for horizontal and vertical surfaces.	m ²	208		
4.1.5	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 25mm acid resistant bricks for horizontal and vertical surfaces.	m ²	208		
SUB-TOTAL OF SECTION 4 CARRIED FORWARD TO SUMMARY					R
SECTION 5: SULPHURIC ACID TANK FARM					
5.1	PREPARATION AND INSTALLATION WORK				
5.1.1	High pressure clean and neutralise exposed concrete wall and floor surfaces with lime. Lime to be supplied by Foskop but to be collected from Foskop Procurement stores and transported to site by Supplier.	m ²	350		
5.1.2	Resolve concrete defects-protruding tolerance <20mm	m ³	1.8		
5.1.3	Design, supply and apply acid resistant under tile membrane suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature.	m ²	350		
5.1.4	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 18mm acid resistant bricks for horizontal and vertical surfaces.	m ²	175		
5.1.5	Supply mortar suitable for withstanding 98.5% concentrated sulphuric acid at 82 C° temperature and install 25mm acid resistant bricks for horizontal and vertical surfaces.	m ²	175		
SUB-TOTAL OF SECTION 5 CARRIED FORWARD TO SUMMARY					R
SECTION 6: TRENCH FROM DEMIN PLANT TO A&B COMMON SUMP AT SULPHURIC PLANT					
6.1	PREPARATION AND INSTALLATION WORK				
6.1.1	High pressure clean and neutralise exposed concrete wall and floor surfaces with lime. Lime to be supplied by Foskop but to be collected from Foskop Procurement stores and transported to site by Supplier.	m ²	280		
6.1.2	Resolve concrete defects-protruding tolerance <20mm	m ³	1.5		
6.1.3	Design, supply and apply acid resistant under tile membrane suitable for withstanding 4.5% concentrated sulphuric acid and 5% concentrated caustic to be applied on concrete surfaces.	m ²	280		
6.1.4	Supply mortar suitable for withstanding 4.5% concentrated sulphuric acid and 5% concentrated caustic and install 18mm acid resistant bricks for horizontal and vertical surfaces.	m ²	140		
6.1.5	Supply mortar suitable for withstanding 4.5% concentrated sulphuric acid and 5% concentrated caustic and install 25mm acid resistant bricks for horizontal and vertical surfaces.	m ²	140		
SUB-TOTAL OF SECTION 6 CARRIED FORWARD TO SUMMARY					R

SECTION 7: PHOSPHORIC ACID PLANT R&F					
7.1	PREPARATION AND INSTALLATION WORK				
7.1.1	Saw cut around existing damaged screed lining.	m	340		
7.1.2	Chip-off damaged sections of existing screed lining	m ²	75		
7.1.3	High pressure clean and neutralise exposed concrete wall and floor surfaces with lime. Lime to be supplied by Foskor but to be collected from Fokor Procurement stores and transported to site by Supplier.	m ²	340		
7.1.4	Resolve concrete defects-protruding tolerance <20mm	m ³	1.8		
7.1.5	Design, supply and apply acid resistant screed lining same as existing or similar approved screed suitable for withstanding 56% concentrated phosphoric acid to be applied on concrete surfaces.	m ²	340		
SUB-TOTAL OF SECTION 7 CARRIED FORWARD TO SUMMARY				R	
SECTION 8: PHOSPHORIC PLANT NEW/OLD CONCENTRATION					
8.1	PREPARATION AND INSTALLATION WORK				
8.1.1	Break damaged brick lining and load into Fokor skips	m ²	380		
8.1.2	High pressure clean and neutralise exposed concrete wall and floor surfaces with lime. Lime to be supplied by Fokor but to be collected from Fokor Procurement stores and transported to site by Supplier.	m ²	380		
8.1.3	Resolve concrete defects-protruding tolerance <20mm	m ³	2		
8.1.4	Design, supply and apply acid resistant under tile membrane suitable for withstanding 56% concentrated phosphoric acid to be applied on concrete surfaces.	m ²	180		
8.1.5	Supply mortar suitable for withstanding 56% concentrated phosphoric acid and install 20mm acid resistant carbon bricks for horizontal and vertical surfaces	m ²	40		
8.1.6	Supply mortar suitable for withstanding 56% concentrated phosphoric acid and install 40mm acid resistant carbon bricks for horizontal and vertical surfaces	m ²	110		
8.1.7	Supply mortar suitable for withstanding 56% concentrated phosphoric acid and install 65mm acid resistant carbon bricks for horizontal and vertical surfaces	m ²	30		
8.1.8	Supply mortar suitable for withstanding 56% concentrated phosphoric acid and install 18mm acid resistant carbon bricks for horizontal and vertical surfaces	m ²	200		
SUB-TOTAL OF SECTION 8 CARRIED FORWARD TO SUMMARY				R	

SECTION 9 : E-TANK FARM					
9.1	PREPARATION AND INSTALLATION WORK				
9.1.1	High pressure clean and neutralise exposed concrete floor surfaces with lime. Lime to be supplied by Foskor but to be collected from Foskor Procurement stores and transported to site by Supplier.	m ²	620		
9.1.2	Resolve concrete defects-protruding tolerance <20mm	m ³	3.2		
9.1.3	Design, supply and apply acid resistant screed lining suitable for withstanding 56% concentrated phosphoric acid to be applied on concrete surfaces.	m ²	620		
SUB-TOTAL OF SECTION 9 CARRIED FORWARD TO SUMMARY					R
SECTION 10 : DEVILLIERS SUMP					
10.1	PREPARATION AND INSTALLATION WORK				
10.1.1	Break and remove existing brick lining	m ²	50		
10.1.2	Resolve concrete defects-protruding tolerance <20mm	m ³	1		
10.1.3	High pressure clean and neutralise exposed concrete floor surfaces with lime. Lime to be supplied by Foskor but to be collected from Foskor Procurement stores and transported to site by Supplier.	m ²	132		
10.1.4	Supply mortar suitable for withstanding 56% concentrated phosphoric acid and install 40mm acid resistant carbon bricks for horizontal and vertical surfaces	m ²	132		
10.1.5	Supply mortar suitable for withstanding 56% concentrated phosphoric acid and install 18mm acid resistant carbon bricks for horizontal and vertical surfaces	m ²	50		
SUB-TOTAL OF SECTION 10 CARRIED FORWARD TO SUMMARY					R

		PROJECT NAME: <i>INSTALLATION OF ACID RESISTANT LINING AT VARIOUS PLANTS</i> CONTRACT NUMBER: <i>FTP /23/MN</i> PROJECT LEADER: <i>Nhlakanipho Myeni</i> PROJECT CLIENT: <i>Sulphuric and Phosphoric Acid Plant</i>
DESCRIPTION	AMOUNT	
SECTION 1: PRELIMINARY AND GENERAL	R	
SECTION 2: SULPHURIC A-PLANT ACID CIRCULATION AREA	R	
SECTION 3: B-PLANT ACID CIRCULATION AREA	R	
SECTION 4: C-PLANT ACID SECTION		
SECTION 5: SULPHURIC ACID TANK FARM	R	
SECTION 6: TRENCH FROM DEMIN PLANT TO A&B COMMON SUMP	R	
SECTION 7: PHOSPHORIC ACID PLANT R&F	R	
SECTION 8: PHOSPHORIC PLANT NEW CONCENTRATION	R	
SECTION 9: E-TANK FARM	R	
SECTION 10: DEVILLIERS SUMP	R	
TOTAL FINAL SUMMARY	R	

Tender No. : FTP /24/MN
Project Title : Infrastructure Repair - Bund Walls and Floors: Installation of Acid Resistant Lining at A&B Plants
Date :09 April 2024

MANDATORY REQUIREMENTS

Bid submission not meeting the mandatory requirements will result in the bid being disqualified.

No.	Mandatory Requirement	Comments	
1	Priced Bill of Materials completed in FOSKOR format	Signed by Tenderer	Pre-qualification
2	Initial programme (Bar Chart/Gantt Chart)	Proposed delivery	
3	Mortar and fibre glass PDS/MTDS (product/material technical data sheet)	Quality Assurance	
4	Quality control plan (QCP)	Quality Assurance	
5	Project specific method statement	Adherence to scope of work	
6	Refer to B3- Schedule of key personnel on the project as requested in the TEV criteria	Level of experience	
7	Refer to B4-Schedule of similar contracts undertaken	Signed by Tenderer	
8	CIDB grade 5 SD certificate	Certification	Pre-qualification
9	Serviceability life span guarantee for acid resistant lining system for concrete	Quality Assurance	

TECHNICAL REQUIREMENTS

Evaluation Criteria (Technical)

No.	Technical Criteria Description	Contribution%	Proof/Documents to be submitted	Notes
1	Mandatory - Compliance with Scope of Work Specifications - Weight not to be less than 30%			
a)	Material specification compliance-MTDS/PDS(material technical data sheet/mortar&screeed) Scoring: Yes = 10%, No = 0%	10%	Provide mandatory documents as requested on section C.12 on page 33 of the tender document.	MTDS/PDS (material technical data sheets) assures the reliability and quality of product used.
b)	Serviceability life span guarantee for acid resistant lining system for concrete Range: 1 year=1% : 5years= 5%	5%	Submit a life span guarantee for acid resistant lining system for concrete	Life span guarantee for acid resistant lining systems assures the reliability and quality of the product
c)	Suitability of methodology in alignment with safe work procedure and care of environment. Qualitative measure Scoring: Yes (Acceptable) = 15%, No(Not Acceptable) = 0%	15%	Submit a method statement that is relative to the project in subject	Methodology of construction is the core of a technical submission and demonstrates control of risk to the project and also demonstrate whether the supplier understands the scope in subject.
2	Reliability - Supplier reliability to complete the project safely within time, quality and budget - Weight not to be less than 30%			
a)	Suitability of QCP (Quality control plan. Qualitative measure) Scoring: Yes (Acceptable) = 10%, No (Not Acceptable) = 0%	10%	Submit a quality control plan that is relative to the project in subject	QCP is an important indicator of the level of quality control of the project activities
b)	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% to 2% -If project program is shortest = 20% -If project program is upper median = 15% -If project program is median = 10% -If project program is lower median = 5% -If project program is longest = 2%	20%	Submit a proposed delivery schedule considering the urgency that FOSKOR has indicated on section B.2 of page 10 of the tender document.	Planned duration for delivery is essential in managing delivery time.
3	Competency - Supplier experience & team competency - Weight not to be less than 40%			
3.1	Company-Weight not to be less than 20%			
a)	Previous experience in similar work, environment, magnitude and complexity Company previous experience with acid resistant tiling of work magnitude greater than R900,000-00. 4 or more references will be 20% 3 References will be 15% 2 References will be 10% 1 References will be 5% 0 References will be 0%	20%	Submit a list of projects undertaken and completed with description, time of project start and completion as well as project cost.	
3.2	Site Manager/Supervisor-Weight not to be less than 10%			
a)	Previous experience in similar work, environment, magnitude and complexity. Scoring: Previous experience with construction of similar acid resistant tiling work Relevant experience 10 years and greater is 10% Relevant experience of 1-9 years is 1% to 9% respectively Range: Highest = 10% and Lowest = 0%	10%	Submit a list of projects undertaken and completed with description, time of project start and completion as well as project cost.	Records of previous projects successfully completed by the supplier provide an indication of the level of experience.
3.3	Health and Safety Officer- Weight not to be less than 5%			

a)	SACPCMP Registration: Construction Health and Safety Officer Yes = 5%, No =0%	5%	Submit candidate's qualification	Records of qualification indicate competency of candidate
b)	Experience as a Health and Safety Officer Scoring Previous experience with construction of similar projects Relevant experience 1-5 years = 1-5%	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	Records of previous experience indicate competency of Safety Officer
Total Technical Score: 100%				
NOTE: In order for the bid to be considered, the bidder needs to score 70% and above, and comply with mandatory requirements.				
DISQUALIFICATION CRITERIA ** 1 Mandatory documentation not submitted. 2 Incomplete priced Bill of Quantities (e.g. omission of unit rate/price etc.) 3 Compulsory site visit not attended.				