

Transnet National Ports Authority
an Operating Division **TRANSNET SOC LTD**
[Registration Number 1990/000900/30]

REQUEST FOR PROPOSAL (RFP)

**FOR THE: GEOTECHNICAL INVESTIGATION (MARINE AND LAND), VARIOUS
LOCATIONS/SITES (PORT OF EAST LONDON AND PORT OF PORT ELIZABETH).**

RFP NUMBER	: TNPA 974
ISSUE DATE	: 17 November 2021
COMPULSORY BRIEFING (EL)	: 24 November 2021
COMPULSORY BRIEFING (PE)	: 25 November 2021
CLOSING DATE	: 11 January 2022
CLOSING TIME	: 10h00am
TENDER VALIDITY PERIOD	: 12 weeks from closing date

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

SECTION 1: NOTICE TO TENDERERS

1. INVITATION TO TENDER

Responses to this Tender [hereinafter referred to as a **Tender**] are requested from persons, companies, close corporations or enterprises [hereinafter referred to as a Tenderer].

DESCRIPTION	GEOTECHNICAL INVESTIGATION (MARINE AND LAND), VARIOUS LOCATIONS/SITES (PORT OF EAST LONDON AND PORT OF PORT ELIZABETH).
TENDER DOCUMENT	<p>This Tender may be downloaded directly from the National Treasury eTender Publication Portal at www.etenders.gov.za and the Transnet website www.transnet.net FREE OF CHARGE.</p> <p>NOTE:</p> <p>1. It is the responsibility of the tenderer to ensure downloading or receipt of a complete RFP all specifications, drawings and annexures.</p>

COMPULSORY TENDER CLARIFICATION MEETING	<p>A Compulsory Tender Clarification Meeting will be conducted at Port of EL, TNPA Port Administration Building Boardroom, 1 Hely-Hutchinson Road on the 24th November and Port of PE, TNPA Port Administration Building, Lower Ground Canteen on the 25th November 2021, at 10:00am [10 O'clock] for a period of ± 3 (three) hours. [Tenderers to provide own transportation and accommodation].</p> <p>The Compulsory Tender Clarification Meeting will start punctually and information will not be repeated for the benefit of Tenderers arriving late.</p>
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	<p>A Site visit/walk will take place, tenderers are to note:</p> <ul style="list-style-type: none"> • Tenderers are required to wear safety shoes, goggles, long sleeve shirts, high visibility vests and hard hats. • Tenderers without the recommended Personal Protective Equipment (PPE) will not be allowed on the site walk. • Tenderers and their employees, visitors, clients and customers entering Transnet Offices, Depots, Workshops and Stores will have to undergo breathalyser testing. • All forms of firearms are prohibited on Transnet properties and premises. • The relevant persons attending the meeting must ensure that their identity documents, passports or drivers licences are on them for inspection at the access control gates. <p>Certificate of Attendance in the form set out in the Returnable Schedule T2.2-02 hereto must be completed and submitted with your Tender as proof of attendance is required for a compulsory site meeting and/or tender briefing.</p>
	<p>Tenderers are required to bring this Returnable Schedule T2.2-02 to the Compulsory Tender Clarification Meeting to be signed by the <i>Employer's</i> Representative.</p> <p>Tenderers failing to attend the compulsory tender briefing will be disqualified.</p>
CLOSING DATE	<p>10:00am on (11/01/2022)</p> <p>Tenderers must ensure that tenders are delivered timeously to the correct address. If a tender is late or delivered to the incorrect address, it will not be accepted for consideration.</p>

2. TENDER SUBMISSION

Tender Offers must be sealed and addressed as follows:

The Secretariat, Acquisition Council, Transnet National Ports Authority

RFP No: TNPA 974

Description GEOTECHNICAL INVESTIGATION (MARINE AND LAND), VARIOUS LOCATIONS/SITES (PORT OF EAST LONDON AND PORT OF PORT ELIZABETH).

Closing date and time: Tuesday, **11 January 2022** at **10:00am**.

Closing address: *[Refer to options in paragraph 3 below]*

All submissions must reflect the return address of the Tenderer on the reverse side.

3. DELIVERY INSTRUCTIONS FOR TENDER

3.1 Delivery by hand

If delivered by hand, the sealed submission must be deposited in the tender box which is located at the address of the Transnet tender box location Transnet National Ports Authority, Port of Ngqura.

and must be addressed as follows:

**THE SECRETARIAT, ACQUISITION COUNCIL
TRANSNET NATIONAL PORTS AUTHORITY TENDER BOX
Ground Floor, Mendi Building
Transnet National Ports Authority
Neptune Road, off Klub Road
Port of Ngqura**

The measurements of the "tender slot" are 400mm wide x 100mm high, and Tenderers must please ensure that tender documents or files are no larger than the above dimensions. Tenders which are too bulky [i.e. more than 100mm thick] must be split into two or more files, and placed in separate envelopes, each such envelope to be addressed as required in paragraph 2 above.

3.2 Dispatch by courier

If dispatched by courier, the envelope must be addressed as follows and delivered to the Office of The Secretariat, Transnet National Ports Authority Acquisition Council and a signature obtained from that Office:

**THE SECRETARIAT, ACQUISITION COUNCIL
TRANSNET NATIONAL PORTS AUTHORITY TENDER BOX
Ground Floor, Mendi Building
Transnet National Ports Authority
Neptune Road, off Klub Road
Port of Ngqura**

3.3 The tender offers to this tender will be opened as soon as possible after the closing date and time. Transnet shall not, at the opening of tenders, disclose to any other company any confidential details pertaining to the Tender Offers / information received, i.e. pricing, delivery, etc. The names and locations of the Tenderers will be divulged to other Tenderers upon request.

3.4 Submissions must not contain documents relating to any Tender other than that shown on the submission.

4. CONFIDENTIALITY

All information related to this RFP is to be treated with strict confidentiality. In this regard Tenderers are required to certify that they have acquainted themselves with the Non-Disclosure Agreement, **T2.2-16**. All information related to a subsequent contract, both during and after completion thereof, will be treated with strict confidence. Should the need however arise to divulge any information gleaned from provision of the Works, which is either directly or indirectly

related to Transnet's business, written approval to divulge such information must be obtained from Transnet.

5. DISCLAIMERS

Tenderers are hereby advised that Transnet is not committed to any course of action as a result of its issuance of this Tender and/or its receipt of a tender offer. In particular, please note that Transnet reserves the right to:

- 5.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer.
- 5.2. Not necessarily accept the lowest priced tender or an alternative Tender;
- 5.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;
- 5.4. Should the Tenderers be awarded business on strength of information furnished by the Tenderer, which after conclusion of the contract is proved to have been incorrect, Transnet reserves the right to terminate the contract;
- 5.5. Request audited financial statements or any other documentation for the purposes of a due diligence exercise;
- 5.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;
- 5.7. Verify any information supplied by a Tenderer by submitting a tender, the Tenderer/s hereby irrevocably grant the necessary consent to the Transnet to do so;
- 5.8. Conduct the evaluation process in parallel. The evaluation of Tenderers at any given stage must therefore not be interpreted to mean that Tenderers have necessarily passed any previous stage(s);
- 5.9. Unless otherwise expressly stated, each tender lodged in response to the invitation to tender shall be deemed to be an offer by the Tenderer. The Employer has the right in its sole and unfettered discretion not to accept any offer.
- 5.10. Not be held liable if tenderers do not provide the correct contact details during the clarification session and do not receive the latest information regarding this RFP with the possible consequence of being disadvantaged or disqualified as a result thereof.
- 5.11. Transnet reserves the right to exclude any Tenderers from the tender process who has been convicted of a serious breach of law during the preceding 5 [five] years including but not limited to breaches of the Competition Act 89 of 1998, as amended. Tenderers

are required to indicate in tender returnable [clause 12 on **T2.2-18**], [**Breach of Law**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.

6. Transnet will not reimburse any Tenderer for any preparatory costs or other work performed in connection with this Tender, whether or not the Tenderer is awarded a contract.

7. NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE

Tenderer are required to self-register on National Treasury's Central Supplier Database (CSD) which has been established to centrally administer supplier information for all organs of state and facilitate the verification of certain key supplier information. The CSD can be accessed at <https://secure.csd.gov.za/>. Tenderer are required to provide the following to Transnet in order to enable it to verify information on the CSD:

Supplier Number and Unique registration reference number.....

**Transnet urges its clients, suppliers and the general public
to report any fraud or corruption to
TIP-OFFS ANONYMOUS: 0800 003 056 OR Transnet@tip-offs.com**

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts. The Standard for Uniformity in Construction Procurement was first published in Board Notice 62 of 2004 in Government Gazette No 26427 of 9 June 2004. It was subsequently amended in Board Notice 67 of 2005 in Government Gazette No 28127 of 14 October 2005, Board Notice 93 of 2006 in Government Gazette No 29138 of 18 August 2006, Board Notice No 9 of 2008 in Government Gazette No 31823 of 30 January 2009, Board Notice 86 of 2010 in Government Gazette No 33239 of 28 May 2010, Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015 and Board Notice 423 of 2019 in Government Gazette No 42622 of 8 August 2019.

This edition incorporates the amendments made in Board Notice 423 of 2019 in Government Gazette 42622 of 8 August 2019. (see www.cidb.org.za).

The Standard Conditions of Tender make several references to Tender data for detail that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of data given below is cross-referenced in the left-hand column to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause	Data
C.1.1 The <i>Employer</i> is	Transnet SOC Ltd (Reg No. 1990/000900/30)
C.1.2 The tender documents issued by the <i>Employer</i> comprise:	
Part T: The Tender	
Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
Part T2: Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
Part C: The contract	
Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2)
Part C2: Pricing data	C2.1 Pricing instructions C2.2 Bill of Quantities

	Part C3: Scope of Works	C3.1 Scope of Works Annexures (A – I)
	Part C4: Site information	C4.1 Site information
C.1.4	The Employer's agent is:	Procurement Officer
	Name:	Melody Botya
	Address:	Ground Floor, Mendi Building Transnet National Ports Authority Neptune Road, off Klub Road Port of Ngqura
	Tel No.	0415078666 / 0838542976
	E – mail	Melody.Botya@transnet.net
C.2.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:	
	1. Stage One - Pre-qualification criteria for preferential procurement in terms of the Preferential Procurement Regulations, 2017:	
	a) A tenderer having a stipulated minimum B-BBEE status level of contributor of Level 4 .	
	b) Only EME's or QSE's are eligible to submit a tender offer.	
	<i>Any tenderer that fails to meet the stipulated pre-qualifying criteria will be regarded as an unacceptable tender.</i>	
	2. Stage Two - Eligibility with regards to attendance at the compulsory clarification meeting:	
	An authorised representative of the tendering entity or a representative of a tendering entity that intends to form a Joint Venture (JV) must attend the compulsory clarification meeting in terms C2.7	
	<i>Any tenderer that fails to meet the stipulated pre-qualifying criteria will be regarded as an unacceptable tender.</i>	
	3. Stage Three - Functionality:	
	Only those tenderers who obtain the minimum qualifying score for functionality will be evaluated further in terms of price and the applicable preference point system. The minimum qualifying score for functionality is 60 points.	

The evaluation criteria for measuring functionality and the points for each criteria and, if any, each sub-criterion are as stated in C.3.11.3 below.

Any tenderer that fails to meet the stipulated pre-qualifying criteria will be regarded as an unacceptable tender.

C.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. **Tenderers must complete and sign the attendance register.** Addenda will be issued to and tenders will only be received from those tendering entities including those entities that intends forming a joint venture appearing on the attendance register.

Tenderers are also **required to bring their RFP document to the briefing session and have their returnable document T2.2-02 Certificate of Attendance** signed off by the Employer's authorised representative.

C.2.12 No alternative tender offers will be considered.

C.2.13.3 Parts of each tender offer communicated on paper shall be as an **original, one (1) copy** and **a clearly marked electronic version** (compact disc or memory stick) in the same format as the original submission, which shall be in the **English Language**.

C.2.13.5 The *Employer's* details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:

Location of tender box **TRANSNET NATIONAL PORTS AUTHORITY**

Physical address: **Ground Floor, Mendi Building
Transnet National Ports Authority
Neptune Road, off Klub Road
Port of Ngqura**

Identification details: The tender documents must be submitted labelled with:

- Name of Tenderer: **(insert company name)**
- Contact person and details: **(insert details)**
- The Tender Number:
- The Tender Description

Documents must be marked for the attention of:
Employer's Agent: Melody Botya

C.2.13.9 Telephonic, telegraphic, facsimile or e-mailed tender offers will not be accepted.

C.2.15 The closing time for submission of tender offers is:
Time: **10:00am** on the **11 January 2022**
Location: **Transnet National Ports Authority**
Ground Floor, Mendi Building
Transnet National Ports Authority
Neptune Road, off Klub Road
Port of Ngqura

NO LATE TENDERS WILL BE ACCEPTED

C.2.16 The tender offer validity period is **12 weeks** after the closing date. Tenderers are to note that they may be requested to extend the validity period of their tender, on the same terms and conditions, if Transnet's internal evaluation and governance approval processes has not been finalised within the validity period.

C.2.23 The tenderer is required to submit with his tender:

1. A valid Tax Clearance Certificate issued by the South African Revenue Services.
Tenderers also to provide Transnet with a TCS PIN to verify Tenderers compliance status.
2. A **valid B-BBEE Certificate** from a Verification Agency accredited by the South African Accreditation System [**SANAS**], or a **sworn affidavit** confirming annual turnover and level of black ownership in case of all EMEs and QSEs with 51% black ownership or more together with the tender;
3. Proof of registration on the **Central Supplier Database**;

Note: Refer to Section T2.1 for List of Returnable Documents

C3.4 The time and location for opening of the offers are after the opening submissions at the venue as stated in C.2.15.

C3.11 The minimum number of evaluation points for functionality is: **60**

The procedure for the evaluation of responsive tenders is Functionality, Price and Preference:

Only those tenderers who attain the minimum number of evaluation points for Functionality will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from any further consideration.

Functionality Criteria

The functionality criteria and maximum score in respect of each of the criteria are as follows:

Technical Threshold			
Functionality / Quality criteria	Sub-criteria		Maximum number of points
T2.2-03 Programme	Programme must be in Primavera 6 scheduling software or MS Project.	1	10
	Show the capability meet the required timeframe.	1	
	Clearly show the sequencing of all deliverables/activities.	1	
	Identify a realistic project critical path.	1	
	Show submission and approval of safety file.	1	
	Identify all relevant project milestones.	1	
	Including Employer project completion dates.	1	
	Show time risk allowance.	1	
	The programme must support the method statement.	2	
T2.2-04 Project Organogram , Management and CV's	An organisation chart showing on-site and off-site management (including the key people you have identified in the Contract Data Part Two and identify the required legal appointments).		25
	Details of the location (and functions) of offices from which the <i>Works</i> will be managed.	5	
	CVs of people proposed for all identified posts, including: <ol style="list-style-type: none"> Contract Manager(s) (off-site management) – 1 x required per Port. Site Agent(s)/Supervisor(s) (fulltime on-site) – 1 x required per Port. Floating Barge/Platform Supervisor(s) – 1 x required per Port. Drill Rig Supervisor(s)/Drill Rig Operator(s) – minimum of 2 x drilling teams required per Port. TLB Operator – if applicable to portion(s) of Work tendered for. Safety Officer(s) – 1 x required per Port. Quality Assurance Representative(s) – 1 x required per Port. CVs to present details of the experience of the assigned key persons who will be working on the Works with respect to: <ol style="list-style-type: none"> Relevant experience, including, but not limited to: 	20	

	<ul style="list-style-type: none"> i. Contract Manager's experience with the Contract Option chosen for this Contract. If experience of these matters is limited, an indication of relevant training that they have attended should be submitted. ii. General experience relevant to the nature of the Works to be carried out. iii. Specific experience related to vertical and inclined drilling – as applicable to portion(s) of Work tendered for. iv. Specific experience related to drilling/working over water from a floating barge/platform. 		
	2. Adequacy for the assignment. 3. Knowledge of issues pertinent to the Scope e.g. local conditions, affected communities, legislation, techniques, etc.		
	The Works must be executed in a parallel manner at both Ports, hence a provision must be made for one dedicated team per Port.		
T2.2-05 Health and Safety	Signed Health and Safety Company Policy (s16.2 appointee)	2	15
	Roles & Responsibility: S16.2 Assistant CEO; 8.5 CHSO Safety officer CV and proof registration with SACPCMP; 8.7 Construction Supervisor; 9.1 Risk Assessor, etc. as per the Occupational health and safety Act 85 of 1993; First Aider (Level 3).	2	
	List of key responsible persons (job categories) for the project and health and safety competencies required per category (Training matrix).	1	
	Overview of the tenderer's Risk Assessment methodology, and submission of risk assessments indicating major activities of the project with reference to COVID 19 requirements and mitigations.	3	
	Two years synopsis of health and safety incidents, description, type and action taken to prevent re-occurrence.	2	
	Submission of completed health and safety cost breakdown sheet.	2	

	Complete and return with tender documentation the Contractor Health and Safety Questionnaire with required supporting documentation included as an Annexure.	3	
T2.2-06 Previous Experience	<p>Tenderers are required to demonstrate performance/experience in the delivery of comparable projects of similar size and nature by supplying the following:</p> <ul style="list-style-type: none"> A list of past/current comparable projects. <p>Previous experience of similar <i>Works</i> as detailed in the <i>Scope of Works</i> (the <i>Works Information</i>) with reference to:</p> <ol style="list-style-type: none"> Geotechnical drilling (vertical and inclined – as applicable to portion(s) of Work tendered for), in-situ testing and sampling. Drilling/working over water from a floating barge/ platform. Test pitting, in-situ DCP testing and sampling. Procurement/management of a SANAS accredited civil engineering testing laboratory. <p>Sufficient references to substantiate experience indicated (Client name and contact details, project description, duration and Contract value).</p>	25	25
T2.2-07 Method Statement	<p>The Tenderers must sufficiently demonstrate the approach/methodology that will be employed to cover the <i>Scope</i> of the project(s).</p> <ul style="list-style-type: none"> The Method Statement must respond to the <i>Scope of Works</i> (the <i>Works Information</i>) and outline the proposed methodology, including that relating to the programme, practicality, quality, health and safety, risk and environmental considerations. The Method Statement should articulate what added value the Tenderer will provide in achieving the stated objectives for the project(s). The Tenderer must as such explain his/her understanding of the objectives of the assignment and the <i>Employer's</i> stated and implied requirements, 	25	25

	highlight the issues of importance, and explain the technical approach they would adopt to address them. The Method Statement should also correlate with the Tenderer's quality plan outlining the processes, procedures and associated resources, applied by whom and when, to meet the requirements and indicate how risks will be managed and what contribution can be made regarding value management.		
	In addition to general methodology for the project(s), the Tenderer must provide specific information for the following points:		
	1. Borehole drilling (vertical and inclined – as applicable to portion(s) of <i>Work</i> tendered for), floating barge/ platform, in-situ testing and sampling.		
	2. Test pitting, in-situ DCP testing and sampling.		
	3. Laboratory testing.		
	Tenderers are required to provide detailed Method Statements for the categories as listed above. Each sub-category as listed will be scored based on the linear scale below, and will be averaged and weighed to provide a final score. Tenderers to note that they will not achieve an "acceptable" score should they not provide the information as required in this Returnable.		
	The <i>Works</i> must be executed in a parallel manner at both Ports.		
	The Method Statement should not be longer than 8 pages.		
	TOTAL		100

Functionality shall be scored independently by not less than 3 (three) evaluators and averaged in accordance with the following schedules:

- T2.2-03 Programme
- T2.2-04 Project Organogram, Management & CVs of Key Persons
- T2.2-05 Health and Safety Requirements

- T2.2-06 Previous Experience
- T2.2-07 Method Statement

Each evaluation criteria will be assessed in terms of scores of 0, 20, 40, 60, 80 or 100

The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for functionality, unless scored collectively. (See CIDB Inform Practice Note #9).

Note: Any tender not complying with the above mentioned requirements, will be regarded as non-responsive and will therefore not be considered for further evaluation. This note must be read in conjunction with Clause C.2.1.

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- C.3.11. Only tenders that achieve the minimum qualifying score for functionality will be evaluated further in accordance with the 80/20 preference points systems as described in Preferential Procurement Regulations 6 and 7.

80 where the financial value of one or more responsive tenders received have a value equal to or below R50 million, inclusive of all applicable taxes.

Up to 100 minus W_1 tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed. **Should the BBBEE rating not be provided, tenderers with no verification will score zero points for preferencing.**

Note: Transnet reserves the right to carry out an independent audit of the tenderers scorecard components at any stage from the date of close of the tenders until completion of the contract.

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- C.3.13 Tender offers will only be accepted if:

The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;

1. the tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;
2. the tenderer has fully and properly completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process and persons in the employ of the state.

3. Transnet reserves the right to award the tender to the tenderer who scores the highest number of points overall, unless there are **objective criteria** which will justify the award of the tender to another tenderer. Objective criteria include but are not limited to the outcome of a due diligence exercise to be conducted. The due diligence exercise may take the following factors into account inter alia;

the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data and
- f) is able, in the option of the employer to perform the contract free of conflicts of interest.

C.3.17 The number of paper copies of the signed contract to be provided by the Employer is 1 (one).

T2.1 List of Returnable Documents

2.1.1 These schedules are required for pre-qualification and eligibility purposes:

- T2.2-01 **Stage One as per PPPFA: Pre-qualification Criteria Schedule** - minimum B-BBEE status Level 4 and only EME/QSE.
- T2.2-02 **Stage Four: Eligibility Criteria Schedule** - Certificate of attendance at Compulsory Tender Clarification Meeting.

2.1.2 Stage Five: these schedules will be utilised for evaluation purposes:

- T2.2-03 **Evaluation Schedule:** Programme
- T2.2-04 **Evaluation Schedule:** Project Organogram, Management & CV's
- T2.2-05 **Evaluation Schedule:** Health and Safety Management
- T2.2-06 **Evaluation Schedule:** Previous experience
- T2.2-07 **Evaluation Schedule:** Method Statement

2.1.3 Returnable Schedules:

General:

- T2.2-08 Authority to submit tender
- T2.2-09 Record of addenda to tender documents
- T2.2-10 Letter of Good Standing
- T2.2-11 Risk Elements
- T2.2-12 Availability of equipment and other resources
- T2.2-13 Schedule of proposed Subcontractors (if subcontract in terms of PPPFA is not eligibility)
- T2.2-14 Site Establishment requirements

Agreement and Commitment by Tenderer:

- T2.2-15: CIDB SFU ANNEX G Compulsory Enterprise Questionnaire
- T2.2-16 Non-Disclosure Agreement
- T2.2-17 RFP Declaration Form
- T2.2-18 RFP – Breach of Law
- T2.2-19 Certificate of Acquaintance with Tender Document
- T2.2-20 Service Provider Integrity Pact
- T2.2-21 Supplier Code of Conduct
- T2.2-22 Agreement in terms of Protection of Personal Information Act

1.3.2 Financial/Insurance:

T2.2-23 Insurance provided by the Contractor

T2.2-24 Three (3) years audited financial statements

1.3.3 Transnet Vendor Registration Form:

T2.2-25 Transnet Vendor Registration Form

2.2 C1.1 Offer portion of Form of Offer & Acceptance

2.3 C1.2 Contract Data

2.5 C2.1 Pricing Instructions (Bill of Quantities)

2.6 C2.2 Bill of Quantities

T2.2-01 Eligibility Criteria Schedule: B-BBEE Status Level/EME or QSE

In an endeavour to grow and develop Black Owned (BO) companies as well as to ensure that Transnet meets its Shareholder Compact Objectives, Potential Tenderers are required to meet the eligibility criteria of B-BBEE Status Level and EME or QSE.

It is a specific tendering condition that tenderers:

- Have a stipulated minimum B-BBEE status of contributor Level 4.
- Are only an EME or QSE.

Tenderers are required to submit the **valid B-BBEE certificates or Sworn Affidavits** the Company/ies together with the Tender submission.

Failure to submit these mandatory returnable documents by the tender closing date and time will lead to disqualification.

T2.2-02a: Eligibility Criteria Schedule: Certificate of Attendance at Tender Clarification Meeting (Port of East London)

NB: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

This is to certify that

(Company Name or member of a Joint Venture)

Represented

By:

(Name and Surname)

Was represented at the compulsory tender clarification meeting

Held at:	Port of East London	
On (date)	24 November 2021	Starting time: 10:00am

Attendance of the above company/joint venture at the meeting was confirmed:

Name

Melody Botya

Signature

**For and on Behalf of the
Employers Agent.**

Date

Bidders who have elected to respond to the Port of East London Scope of Works and fail to submit this mandatory returnable document by the tender closing date and time will be disqualified.

T2.2-02b: Eligibility Criteria Schedule: Certificate of Attendance at Tender Clarification Meeting (Port of Port Elizabeth)

NB: Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

This is to certify that

(Company Name or member of a Joint Venture)

Represented

By:

(Name and Surname)

Was represented at the compulsory tender clarification meeting

Held at:	Port of Port Elizabeth	
On (date)	25 November 2021	Starting time: 10:00am

Attendance of the above company/joint venture at the meeting was confirmed:

Name

Melody Botya

Signature

**For and on Behalf of the
Employers Agent.**

Date

Bidders who have elected to respond to the Port of Port Elizabeth Scope of Works and fail to submit this mandatory returnable document by the tender closing date and time will be disqualified.

T2.2-03a: Evaluation Schedule: Programme

(Port of East London)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

Programme

The Tenderer details the programme for evaluation and attaches it to this schedule. In addition, the Tenderer is to provide an electronic copy of the programme in Primavera or MS Project.

The Tenderer's attention is drawn to core clause 31 of the NEC3 Engineering and Construction contract regarding the items to be shown on a programme.

The tenderer shall provide a proposed programme, (one) for the Port of East London at a minimum

Level 3 showing but not limited to the following:

- Ability to execute the works in terms of the *Employer's* requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data per each port location.
- Dates when the *Contractor* will need access to any part of the Site, submission & approval process & timing for Health & Safety Files, Environmental Files and Quality Files.
- The *Contractor* indicates how they plan on achieving the following dates and clearly demonstrates them on the schedule per each port location - Start Date, Access Date, Planned Completion, Key Dates & Completion Date. In addition, the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.
- The Programme must clearly support and demonstrate alignment to the Method Statement as contained in T2.1 List of Returnables.

The scoring of the Programme will be as follows:

core									
	Programme must be in Primavera 6 scheduling software or MS Project.	Show the capability meet the required timeframe.	Clearly show the sequencing of all deliverables /activities.	Identify a realistic project critical path.	Show submission and approval of safety file.	Identify all relevant project milestones.	Including Employer project completion dates.	Show time risk allowance.	The programme must support the method statement.
	1	1	1	1	1	1	1	1	2
Score 0					The tenderer has submitted no information.				
Score 20	The programme is not in Primavera or MS Project.	The programme is not acceptable as it will not satisfy project objectives or requirements.	The tenderer has misunderstood the scope of work and does not deal with the critical aspects of the overall programme.	The tenderer has not addressed critical access requirements.	The tenderer has not allowed timing for approval processes for SHEQ documentation.	The tenderer has addressed some but not all date requirements and submission contain critical logic and sequencing errors which renders it unrealistic /unachievable.	The tenderer has not addressed critical access requirements.	The tenderer has not demonstrated Time Risk Allowance (TRA).	No alignment between programme and method statement.
Score 40		The programme is generic, not practical and unrealistic,	The tenderer has misunderstood certain aspects of the scope of	The tenderer has addressed critical but not all access requirements.	The tenderer has not allowed sufficient timing for approval processes for	The tenderer has addressed some but not all date requirements	The tenderer has addressed some but not all date requirements	The tenderer has demonstrated inadequate provision for	Critical errors and or omissions in alignment between programme and method statement.

		therefore is unlikely to satisfy project objectives or Employer's requirements.	the works and does not deal with the critical aspects of the project.		SHEQ documentation.	and submission contain critical logic and sequencing errors which renders it unrealistic/unachievable.	and submission contain critical logic and sequencing errors which renders it unrealistic/unachievable.	Time Risk Allowance (TRA) i.e. TRA in insufficient quantities and not assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty.	
Score 60		The programme is not adequately predictive in that it contains minor errors or omissions in critical path/s. Activity duration estimates demonstrate the fact that the programme does not present an accurate model of project risk.	The programme contains minor errors or omissions in its demonstration of the sequence, methodology and underlying approach to provision of the Works, in comparison with the requirements of the Works Information and Engineering Specification, as such adequately deals with some but not all the critical	The programme is complete and sufficiently decomposed, as demonstrated through the project WBS which fully encompasses project scope as detailed but not limited to the Works Information and Engineering Specification.	The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has demonstrated inadequate provision for Time Risk Allowance (TRA) i.e. TRA in insufficient quantities, and not assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty.	Minor errors and omissions in alignment between programme and method statement.

		The programme contains minor errors and omissions in logic (i.e. horizontal and vertical traceability).	characteristics of overall project execution.						
Score 80	The programme is in Primavera or MS Project.	The programme addresses specific project objectives.	The programme adequately demonstrates the sequence, methodology, critical success factors, risks and underlying approach to provision of the Works, in line with the requirements of the Works Information and Engineering Specification, as such adequately deals with the critical characteristics of overall project execution.	The programme is predictive in that it provides meaningful critical path/s and an accurate/realistic model of project risk, the latter as demonstrated in activity duration estimates.	The tenderer has allowed sufficient timing for approval processes for SHEQ documentation.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has demonstrated adequate provision for Time Risk Allowance (TRA) i.e. TRA in sufficient quantities, correctly assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty.	Programme and method statement are fully aligned, and submission contains no critical errors or omissions.
Score 100	Besides meeting the above "80"	Besides meeting the	Besides meeting the "80" rating,	Besides meeting the "80" rating,	Besides meeting the "80" rating,	Besides meeting the	Besides meeting the	Besides meeting the "80" rating,	Besides meeting the "80" rating, the



	rating, the important issues are approached in an innovative and efficient way.	"80" rating, the tenderer has exceeded the required expectations.	the tenderer has exceeded the required expectations.	the tenderer has exceeded the required expectations.	the tenderer has exceeded the required expectations.	"80" rating, the tenderer has exceeded the required expectations.	"80" rating, the tenderer has exceeded the required expectations.	the tenderer has exceeded the required expectations.	tenderer has exceeded the required expectations.
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Attachment A: Copy of the Programme

T2.2-03b: Evaluation Schedule: Programme

(Port of Port Elizabeth)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

Programme

The Tenderer details the programme for evaluation and attaches it to this schedule. In addition, the Tenderer is to provide an electronic copy of the programme in Primavera or MS Project.

The Tenderer's attention is drawn to core clause 31 of the NEC3 Engineering and Construction contract regarding the items to be shown on a programme.

The tenderer shall provide a proposed programme, (one) for the Port of Port Elizabeth at a minimum

Level 3 showing but not limited to the following:

- Ability to execute the works in terms of the *Employer's* requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data per each port location.
- Dates when the *Contractor* will need access to any part of the Site, submission & approval process & timing for Health & Safety Files, Environmental Files and Quality Files.
- The *Contractor* indicates how they plan on achieving the following dates and clearly demonstrates them on the schedule per each port location - Start Date, Access Date, Planned Completion, Key Dates & Completion Date. In addition, the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.
- The Programme must clearly support and demonstrate alignment to the Method Statement as contained in T2.1 List of Returnables.

The scoring of the Programme will be as follows:

Programme									
Sub-criteria	Programme must be in Primavera 6 scheduling software or MS Project.	Show the capability meet the required timeframe.	Clearly show the sequencing of all deliverables /activities.	Identify a realistic project critical path.	Show submission and approval of safety file.	Identify all relevant project milestones.	Including Employer project completion dates.	Show time risk allowance.	The programme must support the method statement
10	1	1	1	1	1	1	1	1	2
Score 0					The tenderer has submitted no information.				
Score 20	The programme is not in Primavera or MS Project.	The programme is not acceptable as it will not satisfy project objectives or requirements.	The tenderer has misunderstood the scope of work and does not deal with the critical aspects of the overall programme.	The tenderer has not addressed critical access requirements.	The tenderer has not allowed timing for approval processes for SHEQ documentation.	The tenderer has addressed some but not all date requirements and submission contain critical logic and sequencing errors which renders it unrealistic /unachievable.	The tenderer has not addressed critical access requirements.	The tenderer has not demonstrated Time Risk Allowance (TRA).	No alignment between programme and method statement.
Score 40		The programme is generic, not practical and unrealistic, therefore is	The tenderer has misunderstood certain aspects of the scope of the works and	The tenderer has addressed critical but not all access requirements.	The tenderer has not allowed sufficient timing for approval processes for	The tenderer has addressed some but not all date requirements and	The tenderer has addressed some but not all date requirements and submission	The tenderer has demonstrated inadequate provision for Time Risk	Critical errors and or omissions in alignment between programme and method statement.

		unlikely to satisfy project objectives or Employer's requirements.	does not deal with the critical aspects of the project.		SHEQ documentation.	submission contain critical logic and sequencing errors which renders it unrealistic/unachievable.	contain critical logic and sequencing errors which renders it unrealistic/unachievable.	Allowance (TRA) i.e. TRA in insufficient quantities and not assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty.	
Score 60		The programme is not adequately predictive in that it contains minor errors or omissions in critical path/s. Activity duration estimates demonstrate the fact that the programme does not present an accurate model of project risk.	The programme contains minor errors or omissions in its demonstration of the sequence, methodology and underlying approach to provision of the Works, in comparison with the requirements of the Works Information and Engineering Specification, as such adequately deals with some but not all the critical characteristics of	The programme is complete and sufficiently decomposed, as demonstrated through the project WBS which fully encompasses project scope as detailed but not limited to the Works Information and Engineering Specification.	The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has demonstrated inadequate provision for Time Risk Allowance (TRA) i.e. TRA in insufficient quantities, and not assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty.	Minor errors and omissions in alignment between programme and method statement.

		The programme contains minor errors and omissions in logic (i.e. horizontal and vertical traceability).	overall project execution.						
Score 80	The programme is in Primavera or MS Project.	The programme addresses specific project objectives.	The programme adequately demonstrates the sequence, methodology, critical success factors, risks and underlying approach to provision of the Works, in line with the requirements of the Works Information and Engineering Specification, as such adequately deals with the critical characteristics of overall project execution.	The programme is predictive in that it provides meaningful critical path/s and an accurate/realistic model of project risk, the latter as demonstrated in activity duration estimates.	The tenderer has allowed sufficient timing for approval processes for SHEQ documentation.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate and renders the submission realistic and achievable.	The tenderer has demonstrated adequate provision for Time Risk Allowance (TRA) i.e. TRA in sufficient quantities, correctly assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty.	Programme and method statement are fully aligned, and submission contains no critical errors or omissions.

Score 100	Besides meeting the above "80" rating, the important issues are approached in an innovative and efficient way.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.	Besides meeting the "80" rating, the tenderer has exceeded the required expectations.
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Attachment A: Copy of the Programme

T2.2-04a: Evaluation Schedule - Project Organogram, Management & CVs of Key Personnel (Port of East London)

Note to Tenderers: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

Project Organogram, Management & CVs of Key Personnel - The tender must be able to demonstrate that the project personnel have sufficient knowledge, experience and qualifications to provide the required services and submit the following documents as a minimum with the tender:

- An organisation chart showing on-site and off-site management (including the key people you have identified for the Contract and the required legal appointments).
- Details of the location (and functions) of offices from which the *Works* will be managed.
- CVs of people proposed for all identified posts, including:
 1. Contract Manager (off-site management).
 2. Site Agent/Supervisor (fulltime on-site).
 3. Floating Barge/Platform Supervisor.
 4. Drill Rig Supervisor(s)/Drill Rig Operator(s) – minimum of 2 drilling teams required per project per port location.
 5. TLB Operator – if applicable to portion(s) of *Work* tendered for.
 6. Safety Officer.
 7. Quality Assurance Representative.
- CVs to present details of the experience of the assigned key persons who will be working on the *Works* with respect to:
 1. Relevant experience, including, but not limited to:
 - Contract Manager's experience with the Contract Option chosen for this Contract. If experience of these matters is limited, an indication of relevant training that they have attended should be submitted.
 - General experience relevant to the nature of the *Works* to be carried out.
 - Specific experience related to vertical and inclined drilling – as applicable to portion(s) of *Work* tendered for.
 - Specific experience related to drilling/working over water from a floating barge/platform.
 2. Adequacy for the assignment.
 3. Knowledge of issues pertinent to the *Scope* e.g. local conditions, affected communities, legislation, techniques, etc.
 4. The education, training and skills of the assigned staff in the specific sector, field, subject, etc. which is directly linked to the *Scope of Works*. Proof of education and training must be attached to the CV.
- Comprehensive CVs should be attached to this schedule and as a minimum each CV should address the following, but not limited to:
 1. Personal particulars:
 - Name.
 - Place(s) of tertiary education and dates associated therewith.
 - Professional awards.
 2. Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations).

Transnet National Port Authority.

Tender Number: TNPA 974

Description of the Works: Geotechnical Investigation (Marine and Land), various locations/sites
(Port of PE and Port of EL).

3. Name of current employer and position in enterprise.
4. Overview of post graduate experience (year, organization and position).
5. Outline of recent assignments/experience that has a bearing on the *Scope of Works*.

Please note: The Works must be executed in a parallel manner at both Ports, hence a provision must be made for one dedicated team per Port location.

List of Key Persons assigned to the above disciplines

No.	Key Persons	Name and Surname	CV attached (Yes/No)
1	Contract Manager (off-site management)		
2	Site Agent/Supervisor (fulltime on-site)		
3	Floating Barge/Platform Supervisor		
4	Drill Rig Supervisor(s)/Drill Rig Operator(s) – minimum of 2 drilling teams required per project per port location		
5	TLB Operator		
6	Safety Officer		
7	Quality Assurance Representative		

The table below will be used as guidelines for scoring/evaluating the Project Organogram, Management & CVs of Key Persons submitted by the Tenderer:

Elements and weight	Guidelines for scoring/evaluating the Project Organogram, Management & CVs of Key Persons	
Organisation chart and details of the location (and functions) of offices from which the <i>Works</i> will be managed (5)	Score 0	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.
	Score 20	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). More than three (>3) key staff members and/or details of the location (and functions) of offices from which the <i>Works</i> will be managed not included.
	Score 40	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). Three (3) key staff members and/or details of the location (and functions) of offices from which the <i>Works</i> will be managed not included.
	Score 60	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). Two (2) key staff members and/or details of the location (and functions) of offices from which the <i>Works</i> will be managed not included.
	Score 80	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). One (1) key staff member not included and details of the location (and functions) of offices from which the <i>Works</i> will be managed included.
	Score 100	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). All key staff and details of the location (and functions) of offices from which the <i>Works</i> will be managed included.

Transnet National Port Authority.

Tender Number: TNPA 974

Description of the Works: Geotechnical Investigation (Marine and Land), various locations/sites
(Port of PE and Port of EL).

Elements and weight	Guidelines for scoring/evaluating the Project Organogram, Management & CVs of Key Persons	
(20) Contract Manager (3) Site Agent/ Supervisor (4) Floating Barge/ Platform Supervisor (3) Drill Rig Supervisor(s)/ Operator(s) (2 each, minimum 2 required per project). Total of (4) TLB Operator (2) Safety Officer (2) Quality Assurance Representative (2)	Score 0	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.
	Score 20	Key staff have very limited levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically < 1 year experience.)
	Score 40	Key staff have limited levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 1 and < 3 years' experience.)
	Score 60	Key staff have reasonable and acceptable levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 3 and < 5 years' experience.)
	Score 80	Key staff have extensive levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 5 and < 10 years' experience.)
	Score 100	Key staff have outstanding levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 10 years' experience.)

Index of documentation attached to this schedule:

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T2.2-04b: Evaluation Schedule - Project Organogram, Management & CVs of Key Personnel (Port of Port Elizabeth)

Note to Tenderers: Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

Project Organogram, Management & CVs of Key Personnel - The tender must be able to demonstrate that the project personnel have sufficient knowledge, experience and qualifications to provide the required services and submit the following documents as a minimum with the tender:

- An organisation chart showing on-site and off-site management (including the key people you have identified for the Contract and the required legal appointments).
- Details of the location (and functions) of offices from which the *Works* will be managed.
- CVs of people proposed for all identified posts, including:
 1. Contract Manager (off-site management).
 2. Site Agent/Supervisor (fulltime on-site).
 3. Floating Barge/Platform Supervisor.
 4. Drill Rig Supervisor(s)/Drill Rig Operator(s) – minimum of 2 drilling teams required per project per port location.
 5. Safety Officer.
 6. Quality Assurance Representative.
- CVs to present details of the experience of the assigned key persons who will be working on the *Works* with respect to:
 1. Relevant experience, including, but not limited to:
 - Contract Manager's experience with the Contract Option chosen for this Contract. If experience of these matters is limited, an indication of relevant training that they have attended should be submitted.
 - General experience relevant to the nature of the *Works* to be carried out.
 - Specific experience related to vertical and inclined drilling – as applicable to portion(s) of *Work* tendered for.
 - Specific experience related to drilling/working over water from a floating barge/platform.
 2. Adequacy for the assignment.
 3. Knowledge of issues pertinent to the *Scope* e.g. local conditions, affected communities, legislation, techniques, etc.
 4. The education, training and skills of the assigned staff in the specific sector, field, subject, etc. which is directly linked to the *Scope of Works*. Proof of education and training must be attached to the CV.
- Comprehensive CVs should be attached to this schedule and as a minimum each CV should address the following, but not limited to:
 1. Personal particulars:
 - Name.
 - Place(s) of tertiary education and dates associated therewith.
 - Professional awards.
 2. Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations).
 3. Name of current employer and position in enterprise.

Transnet National Port Authority.

Tender Number: TNPA 974

Description of the Works: Geotechnical Investigation (Marine and Land), various locations/sites
(Port of PE and Port of EL).

4. Overview of post graduate experience (year, organization and position).
5. Outline of recent assignments/experience that has a bearing on the *Scope of Works*.

Please note: The Works must be executed in a parallel manner at both Ports, hence a provision must be made for one dedicated team per Port location.

List of Key Persons assigned to the above disciplines

No.	Key Persons	Name and Surname	CV attached (Yes/No)
1	Contract Manager (off-site management)		
2	Site Agent/Supervisor (fulltime on-site)		
3	Floating Barge/Platform Supervisor		
4	Drill Rig Supervisor(s)/Drill Rig Operator(s) – minimum of 2 drilling teams required per project per port location		
5	Safety Officer		
6	Quality Assurance Representative		

The table below will be used as guidelines for scoring/evaluating the Project Organogram, Management & CVs of Key Persons submitted by the Tenderer:

Elements and weight	Guidelines for scoring/evaluating the Project Organogram, Management & CVs of Key Persons	
Organisation chart and details of the location (and functions) of offices from which the <i>Works</i> will be managed (5)	Score 0	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.
	Score 20	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). More than three (>3) key staff members and/or details of the location (and functions) of offices from which the <i>Works</i> will be managed not included.
	Score 40	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). Three (3) key staff members and/or details of the location (and functions) of offices from which the <i>Works</i> will be managed not included.
	Score 60	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). Two (2) key staff members and/or details of the location (and functions) of offices from which the <i>Works</i> will be managed not included.
	Score 80	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). One (1) key staff member not included and details of the location (and functions) of offices from which the <i>Works</i> will be managed included.
	Score 100	An organisation chart included, showing on-site and off-site management (including the key people identified for the Contract and the required legal appointments). All key staff and details of the location (and functions) of offices from which the <i>Works</i> will be managed included.

Transnet National Port Authority.

Tender Number: TNPA 974

Description of the Works: Geotechnical Investigation (Marine and Land), various locations/sites
(Port of PE and Port of EL).

Elements and weight	Guidelines for scoring/evaluating the Project Organogram, Management & CVs of Key Persons	
(20) Contract Manager (3) Site Agent/ Supervisor (5) Floating Barge/ Platform Supervisor (4) Drill Rig Supervisor(s)/ Operator(s) (2 each, minimum 2 required per project). Total of (4) Safety Officer (2) Quality Assurance Representative (2)	Score 0	The Tenderer has either submitted no information or information that is not relevant. A score cannot be determined.
	Score 20	Key staff have very limited levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically < 1 year experience.)
	Score 40	Key staff have limited levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 1 and < 3 years' experience.)
	Score 60	Key staff have reasonable and acceptable levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 3 and < 5 years' experience.)
	Score 80	Key staff have extensive levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 5 and < 10 years' experience.)
	Score 100	Key staff have outstanding levels of relevant experience, qualifications, skills and knowledge of issues pertinent to the project(s). (Typically ≥ 10 years' experience.)

Index of documentation attached to this schedule:

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T2.2-05a: Evaluation Schedule: Health and Safety Management (Port of East London)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

The tenderer must submit the following documents as a minimum with the tender submission:

1. The Tenderer must provide their Contract specific health and safety plan addressing the requirements of TNPA health and safety specification and include the following documents:
 - Safety, Health & Environmental Company Policy signed by the accounting officer. List the five elements -
 1. Commitment to Safety, prevention of pollution,
 2. Continual improvement,
 3. Compliance to legal requirements, appropriate to the nature of contractor's activities,
 4. Hold management accountable for development of the safety systems
 5. Include objectives and targets.
2. Roles and responsibilities of legal appointees
 - a) In terms of OHSA 85 of 1993 and its Regulations.
 - I. S16.1 CEO,
 - II. S16.2 Assistant to CEO,
 - III. CR8.1 Construction manager,
 - IV. CR8.2 Assistant Construction manager,
 - V. CR8.7 Construction Supervisor,
 - VI. CR8.8 Construction assistant supervisor,
 - VII. CR9.1 Risk Assessor
 - b) In terms of Project and Construction Management Professional Act 48 of 2000
 - I. Construction Manager's CV and proof of registration with SACPCMP.
 - II. In terms of Project and Construction regulation 8(5) Construction Health & Safety Manager's CV and proof of registration with SACPCMP.
 - III. CR8.5 Construction Health & Safety officer's CV and proof of registration with SACPCMP
3. List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management and highlight training planned dates.
4. Overview of the tenderer's Risk Assessment methodology, and submission of risk assessments indicating major activities of the project namely, but not limited to: excavations; borehole drilling and in-situ testing; sampling; backfill of boreholes; sample transportation etc. Risk Assessment to include COVID compliance.
5. Two years synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.
6. Submission of completed cost breakdown sheet
7. Complete and return with tender documentation the Contractor Safety Questionnaire with supporting documentation included as an Annexure.

The scoring of the Tender's Health and Safety criteria is as follows:

	Policy (State points allocated) 1. Commitment to Safety, prevention of pollution, 2. Continual improvement, 3. Compliance to legal requirements, appropriate to the nature of contractor's activities, 4. Hold management accountable for development of the safety systems, 5. Include objectives and targets.	Roles & Responsibilities, such as S16.1 CEO, S16.2 Assistant CEO, 8.1 Construction manager, 8.2 Assistant Construction Manager, 8.7 Construction Supervisor, 8.8 Construction assistant supervisor, 9.1 Risk Assessor, etc. as per the Occupational health and safety Act 85 of 1993. CV and proof of registration with SACPCMP of Construction Manager in terms of Project and Construction Management Professional Act 48 of 2000	List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management and highlight training planned dates.	Overview of the tenderer's Risk Assessment methodology, and submission of risk assessments indicating major activities of the project namely, but not limited to: excavations; borehole drilling and in-situ testing; sampling; backfill of boreholes; sample transportation etc. Risk assessment to include COVID compliance	Two years' synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.	Submission of completed cost breakdown sheet.	Complete and return with tender documentation the Contractor Safety Questionnaire with required supporting documentation included as an Annexure.
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		CV and proof of Health and Safety Officer and Health and Safety Manager in terms of Construction Regulations					
Points	2	2	1	3	2	2	3
(score 0)	The Tenderer has submitted no information or inadequate information to determine a score.						
(score 20)	1 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.	Roles and responsibilities do not meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	Key responsible persons are not included on training matrix as per proposed organogram structure.	Information supplied is totally insignificant/inadequate to achieve the required standard of service.	Information supplied is totally insignificant/inadequate to achieve the required standard of service.	Health and safety Budget submitted is totally insignificant /inadequate to achieve the required standard of service, 0 to 1% allocated.	Information supplied is totally insignificant /inadequate to achieve the required standard of service.
(score 40)	2 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.	Roles and responsibilities are unlikely to ensure compliance as per the Works information and not in line with OHS Act and TNPA health	Not all key responsible persons are included in the training matrix. Trainings matrix submitted does not cover all SHE training listed on Health and Safety	Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>employer's</i> requirements will not be met.	Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.	Health and safety Budget submitted is insignificant/inadequate /answer/solution to the returnable, <i>Employer's</i> health and	Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.

		and safety specification.	specification. Training matrix not signed by responsible personnel.			safety requirements will not be met, 1.1 – 2% allocated.	
(score 60)	3 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirements.	Satisfactory response on roles and responsibilities as per Employer's requirements.	Satisfactory response on the list of job categories and trainings as per proposed project organogram structure. Training matrix covers most of the trainings listed on TNPA Health and safety specification.	Satisfactory response /answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i> requirements will be met.	Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i> requirements will be met.	Health and safety Budget submitted is Satisfactory response /answer/solution to the returnable, Employer's health and safety requirements will be met, 2.1 – 3% allocated.	Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i> requirements will be met.
(score 80)	4 of the five key policy components are recognized and meets the <i>Employer's</i> requirements.	Roles and responsibilities are likely to ensure compliance as per Works Information, OHS Act and TNPA health and safety specification.	Most of key persons listed on the training matrix as per proposed project organogram structure. Trainings specified on the matrix are in line with TNPA health	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Health and safety Budget submitted is Good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 3%	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.

			and safety specification.			- above allocated.	
(score 100)	All 5 key policy components are recognized and meets the <i>Employer's</i> requirements	Roles and Responsibilities most likely to ensure compliance as per requirements of OHS Act and TNPA Health and Safety Management Specification and CV and proof of professional registration with SACPCMP submitted.	Training matrix include Management and all employees /personnel in the project. Training matrix had been signed by responsible personnel.	Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Health and safety Budget submitted is Very good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 4% - above allocated.	Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.

Attached submissions to this schedule:

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T2.2-05a: Health and Safety Questionnaire (Port of East London)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

Health, Safety Questionnaire

1. SAFE WORK PERFORMANCE													
1A. Injury Experience / Historical Performance - Alberta													
Use the previous three years injury and illness records to complete the following:													
Year													
Number of medical treatment cases													
Number of restricted work day cases													
Number of lost time injury cases													
Number of fatal injuries													
Total recordable frequency													
Lost time injury frequency													
Number of worker manhours													
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5- Lost Time Injury Frequency	Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours												
1B. Workers' Compensation Experience													
Use the previous three years injury and illness records to complete the following (if applicable):													
Industry Code:		Industry Classification:											
Year													
Industry Rate													
Contractor Rate													
% Discount or Surcharge													
Is your Workers' Compensation account in good standing? (Please provide letter of confirmation)		<input type="checkbox"/> Yes <input type="checkbox"/> No											
2. CITATIONS													
2A.	Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:												
2B.	Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:												

3. CERTIFICATE OF RECOGNITION

Does your company have a Certificate of Recognition?

☐ Yes ☐ No If Yes, what is the Certificate No. _____ Issue Date _____

4. SAFETY PROGRAM

Do you have a written safety program manual?

☐ Yes ☐ No

If Yes, provide a copy for review

Do you have a pocket safety booklet for field distribution?

☐ Yes ☐ No

If Yes, provide a copy for review

Does your safety program contain the following elements:

	YES	NO		YES	NO
CORPORATE SAFETY POLICY	<input type="checkbox"/>	<input type="checkbox"/>	EQUIPMENT MAINTENANCE	<input type="checkbox"/>	<input type="checkbox"/>
INCIDENT NOTIFICATION POLICY	<input type="checkbox"/>	<input type="checkbox"/>	EMERGENCY RESPONSE	<input type="checkbox"/>	<input type="checkbox"/>
RECORDKEEPING & STATISTICS	<input type="checkbox"/>	<input type="checkbox"/>	HAZARD ASSESSMENT	<input type="checkbox"/>	<input type="checkbox"/>
REFERENCE TO LEGISLATION	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PRACTICES	<input type="checkbox"/>	<input type="checkbox"/>
GENERAL RULES & REGULATIONS	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>
PROGRESSIVE DISCIPLINE POLICY	<input type="checkbox"/>	<input type="checkbox"/>	WORKPLACE INSPECTIONS	<input type="checkbox"/>	<input type="checkbox"/>
RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	INVESTIGATION PROCESS	<input type="checkbox"/>	<input type="checkbox"/>
PPE STANDARDS	<input type="checkbox"/>	<input type="checkbox"/>	TRAINING POLICY & PROGRAM	<input type="checkbox"/>	<input type="checkbox"/>
ENVIRONMENTAL STANDARDS	<input type="checkbox"/>	<input type="checkbox"/>	COMMUNICATION PROCESSES	<input type="checkbox"/>	<input type="checkbox"/>
MODIFIED WORK PROGRAM	<input type="checkbox"/>	<input type="checkbox"/>			

5. TRAINING PROGRAM

5A. Do you have an orientation program for new hire employees? ☐ Yes ☐ No

If Yes, include a course outline. Does it include any of the following:

	YES	NO		YES	NO
GENERAL RULES & REGULATIONS	<input type="checkbox"/>	<input type="checkbox"/>	CONFINED SPACE ENTRY	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY REPORTING	<input type="checkbox"/>	<input type="checkbox"/>	TRENCHING & EXCAVATION	<input type="checkbox"/>	<input type="checkbox"/>
INJURY REPORTING	<input type="checkbox"/>	<input type="checkbox"/>	SIGNS & BARRICADES	<input type="checkbox"/>	<input type="checkbox"/>
LEGISLATION	<input type="checkbox"/>	<input type="checkbox"/>	DANGEROUS HOLES & OPENINGS	<input type="checkbox"/>	<input type="checkbox"/>
RIGHT TO REFUSE WORK	<input type="checkbox"/>	<input type="checkbox"/>	RIGGING & CRANES	<input type="checkbox"/>	<input type="checkbox"/>
PERSONAL PROTECTIVE EQUIPMENT	<input type="checkbox"/>	<input type="checkbox"/>	MOBILE VEHICLES	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	PREVENTATIVE MAINTENANCE	<input type="checkbox"/>	<input type="checkbox"/>
PROJECT SAFETY COMMITTEE	<input type="checkbox"/>	<input type="checkbox"/>	HAND & POWER TOOLS	<input type="checkbox"/>	<input type="checkbox"/>
HOUSEKEEPING	<input type="checkbox"/>	<input type="checkbox"/>	FIRE PREVENTION & PROTECTION	<input type="checkbox"/>	<input type="checkbox"/>
LADDERS & SCAFFOLDS	<input type="checkbox"/>	<input type="checkbox"/>	ELECTRICAL SAFETY	<input type="checkbox"/>	<input type="checkbox"/>
FALL ARREST STANDARDS	<input type="checkbox"/>	<input type="checkbox"/>	COMPRESSED GAS CYLINDERS	<input type="checkbox"/>	<input type="checkbox"/>
AERIAL WORK PLATFORMS	<input type="checkbox"/>	<input type="checkbox"/>	WEATHER EXTREMES	<input type="checkbox"/>	<input type="checkbox"/>



5B. Do you have a program for training newly hired or promoted supervisors? ☐ Yes ☐ No

(If Yes, submit an outline for evaluation. Does it include instruction on the following:

	Yes	No		Yes	No
EMPLOYER RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	SAFETY COMMUNICATION	<input type="checkbox"/>	<input type="checkbox"/>
EMPLOYEE RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	FIRST AID/MEDICAL PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>
DUE DILIGENCE	<input type="checkbox"/>	<input type="checkbox"/>	NEW WORKER TRAINING	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY LEADERSHIP	<input type="checkbox"/>	<input type="checkbox"/>	ENVIRONMENTAL REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>
WORK REFUSALS	<input type="checkbox"/>	<input type="checkbox"/>	HAZARD ASSESSMENT	<input type="checkbox"/>	<input type="checkbox"/>
INSPECTION PROCESSES	<input type="checkbox"/>	<input type="checkbox"/>	PRE-JOB SAFETY INSTRUCTION	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	DRUG & ALCOHOL POLICY	<input type="checkbox"/>	<input type="checkbox"/>
INCIDENT INVESTIGATION	<input type="checkbox"/>	<input type="checkbox"/>	PROGRESSIVE DISCIPLINARY POLICY	<input type="checkbox"/>	<input type="checkbox"/>
SAFE WORK PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PRACTICES	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY MEETINGS	<input type="checkbox"/>	<input type="checkbox"/>	NOTIFICATION REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>

6. SAFETY ACTIVITIES

Do you conduct safety inspections?

Yes No Weekly Monthly Quarterly

☐ ☐ ☐ ☐ ☐

Describe your safety inspection process (include participation, documentation requirements, follow-up, report distribution).

Who follows up on inspection action items?

Do you hold site safety meetings for field employees? If Yes, how often?

Yes No Daily Weekly Biweekly

☐ ☐ ☐ ☐ ☐

Do you hold site meetings where safety is addressed with management and field supervisors?

Yes No Weekly Biweekly Monthly

☐ ☐ ☐ ☐ ☐

Is pre-job safety instruction provided before to each new task? ☐ Yes ☐ No

Is the process documented? ☐ Yes ☐ No

Who leads the discussion?

Do you have a hazard assessment process? ☐ Yes ☐ No

- Are hazard assessments documented? If yes, how are hazard assessments communicated and implemented on each project? Who is responsible for leading the hazard assessment process?

Does your company have policies and procedures for environmental protection, spill clean-up, reporting, waste disposal, and recycling as part of the Health & Safety Program?

☐ Yes ☐ No

How does your company measure its H&S success?

- Attach separate sheet to explain

7. SAFETY STEWARDSHIP

7A Are incident reports and report summaries sent to the following and how often?

	Yes	No	Monthly	Quarterly	Annually
Project/Site Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety Director/Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
/Chief Executive Officer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7B How are incident records and summaries kept? How often are they reported internally?

	Yes	No	Monthly	Quarterly	Annually
Incidents totaled for the entire company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incidents totaled by project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by superintendent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by foreman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7C How are the costs of individual incidents kept? How often are they reported internally?

	Yes	No	Monthly	Quarterly	Annually
Costs totaled for the entire company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs totaled by project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by superintendent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by foreman/general foreman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7D Does your company track non-injury incidents?

	Yes	No	Monthly	Quarterly	Annually
Near Miss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property Damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8 PERSONNEL

List key health and safety officers planned for this project. Attach resume.

Name	Position/Title	Designation
Supply name, address and phone number of your company's corporate health and safety representative. Does this individual have responsibilities other than health, safety and environment?		
Name	Address	Telephone Number

Other responsibilities:

9 REFERENCES

List the last three company's your form has worked for that could verify the quality and management commitment to your occupational Health & Safety program

Name and Company	Address	Phone Number

T2.2-05a Health and Safety Cost Breakdown (Port of East London)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

Tenderer (Company)	Responsible Person	Designation	Date
Project/Tender Title	Project/Tender No.	Project Location / Description	

#	Cost element	Unit Cost (R)	# of Units	Total Cost (R)
1.	Human Resources			
2.	Systems Documentation			
3.	Meetings & Administration			
4.	H&S Training			
5.	PPE & Safety Equipment			
6.	Signage & Barricading			
7.	Workplace Facilities			
8.	Emergency & Rescue Measures			
9.	Hygiene Surveys & Monitoring			
10.	Medical Surveillance			
11.	Safe Transport of Workers			
12.	HazMat Management (e.g. asbestos /silica)			
13.	Substance Abuse Testing (3 kits @R500 pm)			
14.	H&S Reward & Recognition			

Total Health and Safety Estimate (R)	
Total Estimate Value (R)	
H&S Cost as % of Tender value	

T2.2-05b: Evaluation Schedule: Health and Safety Management (Port of Port Elizabeth)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

The tenderer must submit the following documents as a minimum with the tender submission:

1. The Tenderer must provide their Contract specific health and safety plan addressing the requirements of TNPA health and safety specification and include the following documents:
 - Safety, Health & Environmental Company Policy signed by the accounting officer. List the five elements -
 1. Commitment to Safety, prevention of pollution,
 2. Continual improvement,
 3. Compliance to legal requirements, appropriate to the nature of contractor's activities,
 4. Hold management accountable for development of the safety systems
 5. Include objectives and targets.
2. Roles and responsibilities of legal appointees
 - a) In terms of OHSA 85 of 1993 and its Regulations.
 - I. S16.1 CEO,
 - II. S16.2 Assistant to CEO,
 - III. CR8.1 Construction manager,
 - IV. CR8.2 Assistant Construction manager,
 - V. CR8.7 Construction Supervisor,
 - VI. CR8.8 Construction assistant supervisor,
 - VII. CR9.1 Risk Assessor
 - b) In terms of Project and Construction Management Professional Act 48 of 2000
 - I. Construction Manager's CV and proof of registration with SACPCMP.
 - II. In terms of Project and Construction regulation 8(5) Construction Health & Safety Manager's CV and proof of registration with SACPCMP.
 - III. CR8.5 Construction Health & Safety officer's CV and proof of registration with SACPCMP
3. List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management and highlight training planned dates.
4. Overview of the tenderer's Risk Assessment methodology, and submission of risk assessments indicating major activities of the project namely, but not limited to: excavations; borehole drilling and in-situ testing; sampling; backfill of boreholes; sample transportation etc. Risk Assessment to include COVID compliance.
5. Two years synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.
6. Submission of completed cost breakdown sheet
7. Complete and return with tender documentation the Contractor Safety Questionnaire with supporting documentation included as an Annexure.

The scoring of the Tender's Health and Safety criteria is as follows:

	Policy (State points allocated) 1. Commitment to Safety, prevention of pollution, 2. Continual improvement, 3. Compliance to legal requirements, appropriate to the nature of contractor's activities, 4. Hold management accountable for development of the safety systems, 5. Include objectives and targets.	Roles & Responsibilities, such as S16.1 CEO, S16.2 Assistant CEO, 8.1 Construction manager, 8.2 Assistant Construction Manager, 8.7 Construction Supervisor, 8.8 Construction assistant supervisor, 9.1 Risk Assessor, etc. as per the Occupational health and safety Act 85 of 1993. CV and proof of registration with SACPCMP of Construction Manager in terms of Project and Construction Management Professional Act 48 of 2000	List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management and highlight training planned dates.	Overview of the tenderer's Risk Assessment methodology, and submission of risk assessments indicating major activities of the project namely, but not limited to: excavations; borehole drilling and in-situ testing; sampling; backfill of boreholes; sample transportation etc. Risk assessment to include COVID compliance	Two years' synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.	Submission of completed cost breakdown sheet.	Complete and return with tender documentation the Contractor Safety Questionnaire with required supporting documentation included as an Annexure.
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		CV and proof of Health and Safety Officer and Health and Safety Manager in terms of Construction Regulations					
Points	2	2	1	3	2	2	3
(score 0)	The Tenderer has submitted no information or inadequate information to determine a score.						
(score 20)	1 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.	Roles and responsibilities do not meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	Key responsible persons are not included on training matrix as per proposed organogram structure.	Information supplied is totally insignificant/inadequate to achieve the required standard of service.	Information supplied is totally insignificant/inadequate to achieve the required standard of service.	Health and safety Budget submitted is totally insignificant /inadequate to achieve the required standard of service, 0 to 1% allocated.	Information supplied is totally insignificant /inadequate to achieve the required standard of service.
(score 40)	2 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.	Roles and responsibilities are unlikely to ensure compliance as per the Works information and not in line with OHS Act and TNPA health	Not all key responsible persons are included in the training matrix. Trainings matrix submitted does not cover all SHE training listed on Health and Safety	Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>employer's</i> requirements will not be met.	Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.	Health and safety Budget submitted is insignificant/inadequate /answer/solution to the returnable, <i>Employer's</i> health and	Poor response /answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.

		and safety specification.	specification. Training matrix not signed by responsible personnel.			safety requirements will not be met, 1.1 – 2% allocated.	
(score 60)	3 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirements.	Satisfactory response on roles and responsibilities as per Employer's requirements.	Satisfactory response on the list of job categories and trainings as per proposed project organogram structure. Training matrix covers most of the trainings listed on TNPA Health and safety specification.	Satisfactory response /answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i> requirements will be met.	Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i> requirements will be met.	Health and safety Budget submitted is Satisfactory response /answer/solution to the returnable, Employer's health and safety requirements will be met, 2.1 – 3% allocated.	Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i> requirements will be met.
(score 80)	4 of the five key policy components are recognized and meets the <i>Employer's</i> requirements.	Roles and responsibilities are likely to ensure compliance as per Works Information, OHS Act and TNPA health and safety specification.	Most of key persons listed on the training matrix as per proposed project organogram structure. Trainings specified on the matrix are in line with TNPA health	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Health and safety Budget submitted is Good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 3%	Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.

			and safety specification.			- above allocated.	
(score 100)	All 5 key policy components are recognized and meets the <i>Employer's</i> requirements	Roles and Responsibilities most likely to ensure compliance as per requirements of OHS Act and TNPA Health and Safety Management Specification and CV and proof of professional registration with SACPCMP submitted.	Training matrix include Management and all employees /personnel in the project. Training matrix had been signed by responsible personnel.	Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Health and safety Budget submitted is Very good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 4% - above allocated.	Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.

Attached submissions to this schedule:

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T2.2-05b: Health and Safety Questionnaire (Port of Port Elizabeth)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

Health, Safety Questionnaire

1. SAFE WORK PERFORMANCE													
1A. Injury Experience / Historical Performance - Alberta													
Use the previous three years injury and illness records to complete the following:													
Year													
Number of medical treatment cases													
Number of restricted work day cases													
Number of lost time injury cases													
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2 - Restricted Work Day Case	Any occupational injury or illness that prevents a worker from performing any of his/her craft jurisdiction duties												
3 - Lost Time injury Cases	Any occupational injury that prevents the worker from performing any work for at least one day												
4 - Total Recordable Frequency	Total number of Medical Treatment, Restricted Work and Lost Time Injury cases multiplied by 200,000 then divided by total manhours												
5- Lost Time Injury Frequency	Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours												
1B. Workers' Compensation Experience													
Use the previous three years injury and illness records to complete the following (if applicable):													
Industry Code:		Industry Classification:											
Year													
Industry Rate													
Contractor Rate													
% Discount or Surcharge													
Is your Workers' Compensation account in good standing? (Please provide letter of confirmation)		<input type="checkbox"/> Yes <input type="checkbox"/> No											
2. CITATIONS													
2A.	Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:												
2B.	Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:												

3. CERTIFICATE OF RECOGNITION

Does your company have a Certificate of Recognition?

☐ Yes ☐ No If Yes, what is the Certificate No. _____ Issue Date _____

4. SAFETY PROGRAM

Do you have a written safety program manual?

☐ Yes ☐ No

If Yes, provide a copy for review

Do you have a pocket safety booklet for field distribution?

☐ Yes ☐ No

If Yes, provide a copy for review

Does your safety program contain the following elements:

	YES	NO		YES	NO
CORPORATE SAFETY POLICY	<input type="checkbox"/>	<input type="checkbox"/>	EQUIPMENT MAINTENANCE	<input type="checkbox"/>	<input type="checkbox"/>
INCIDENT NOTIFICATION POLICY	<input type="checkbox"/>	<input type="checkbox"/>	EMERGENCY RESPONSE	<input type="checkbox"/>	<input type="checkbox"/>
RECORDKEEPING & STATISTICS	<input type="checkbox"/>	<input type="checkbox"/>	HAZARD ASSESSMENT	<input type="checkbox"/>	<input type="checkbox"/>
REFERENCE TO LEGISLATION	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PRACTICES	<input type="checkbox"/>	<input type="checkbox"/>
GENERAL RULES & REGULATIONS	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>
PROGRESSIVE DISCIPLINE POLICY	<input type="checkbox"/>	<input type="checkbox"/>	WORKPLACE INSPECTIONS	<input type="checkbox"/>	<input type="checkbox"/>
RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	INVESTIGATION PROCESS	<input type="checkbox"/>	<input type="checkbox"/>
PPE STANDARDS	<input type="checkbox"/>	<input type="checkbox"/>	TRAINING POLICY & PROGRAM	<input type="checkbox"/>	<input type="checkbox"/>
ENVIRONMENTAL STANDARDS	<input type="checkbox"/>	<input type="checkbox"/>	COMMUNICATION PROCESSES	<input type="checkbox"/>	<input type="checkbox"/>
MODIFIED WORK PROGRAM	<input type="checkbox"/>	<input type="checkbox"/>			

5. TRAINING PROGRAM

5A. Do you have an orientation program for new hire employees? ☐ Yes ☐ No

If Yes, include a course outline. Does it include any of the following:

	YES	NO		YES	NO
GENERAL RULES & REGULATIONS	<input type="checkbox"/>	<input type="checkbox"/>	CONFINED SPACE ENTRY	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY REPORTING	<input type="checkbox"/>	<input type="checkbox"/>	TRENCHING & EXCAVATION	<input type="checkbox"/>	<input type="checkbox"/>
INJURY REPORTING	<input type="checkbox"/>	<input type="checkbox"/>	SIGNS & BARRICADES	<input type="checkbox"/>	<input type="checkbox"/>
LEGISLATION	<input type="checkbox"/>	<input type="checkbox"/>	DANGEROUS HOLES & OPENINGS	<input type="checkbox"/>	<input type="checkbox"/>
RIGHT TO REFUSE WORK	<input type="checkbox"/>	<input type="checkbox"/>	RIGGING & CRANES	<input type="checkbox"/>	<input type="checkbox"/>
PERSONAL PROTECTIVE EQUIPMENT	<input type="checkbox"/>	<input type="checkbox"/>	MOBILE VEHICLES	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	PREVENTATIVE MAINTENANCE	<input type="checkbox"/>	<input type="checkbox"/>
PROJECT SAFETY COMMITTEE	<input type="checkbox"/>	<input type="checkbox"/>	HAND & POWER TOOLS	<input type="checkbox"/>	<input type="checkbox"/>
HOUSEKEEPING	<input type="checkbox"/>	<input type="checkbox"/>	FIRE PREVENTION & PROTECTION	<input type="checkbox"/>	<input type="checkbox"/>
LADDERS & SCAFFOLDS	<input type="checkbox"/>	<input type="checkbox"/>	ELECTRICAL SAFETY	<input type="checkbox"/>	<input type="checkbox"/>
FALL ARREST STANDARDS	<input type="checkbox"/>	<input type="checkbox"/>	COMPRESSED GAS CYLINDERS	<input type="checkbox"/>	<input type="checkbox"/>
AERIAL WORK PLATFORMS	<input type="checkbox"/>	<input type="checkbox"/>	WEATHER EXTREMES	<input type="checkbox"/>	<input type="checkbox"/>

5B. Do you have a program for training newly hired or promoted supervisors? ☐ Yes ☐ No

(If Yes, submit an outline for evaluation. Does it include instruction on the following:

	Yes	No		Yes	No
EMPLOYER RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	SAFETY COMMUNICATION	<input type="checkbox"/>	<input type="checkbox"/>
EMPLOYEE RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	FIRST AID/MEDICAL PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>
DUE DILIGENCE	<input type="checkbox"/>	<input type="checkbox"/>	NEW WORKER TRAINING	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY LEADERSHIP	<input type="checkbox"/>	<input type="checkbox"/>	ENVIRONMENTAL REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>
WORK REFUSALS	<input type="checkbox"/>	<input type="checkbox"/>	HAZARD ASSESSMENT	<input type="checkbox"/>	<input type="checkbox"/>
INSPECTION PROCESSES	<input type="checkbox"/>	<input type="checkbox"/>	PRE-JOB SAFETY INSTRUCTION	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	DRUG & ALCOHOL POLICY	<input type="checkbox"/>	<input type="checkbox"/>
INCIDENT INVESTIGATION	<input type="checkbox"/>	<input type="checkbox"/>	PROGRESSIVE DISCIPLINARY POLICY	<input type="checkbox"/>	<input type="checkbox"/>
SAFE WORK PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PRACTICES	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY MEETINGS	<input type="checkbox"/>	<input type="checkbox"/>	NOTIFICATION REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>

6. SAFETY ACTIVITIES

Do you conduct safety inspections?

Yes No Weekly Monthly Quarterly

☐ ☐ ☐ ☐ ☐

Describe your safety inspection process (include participation, documentation requirements, follow-up, report distribution).

Who follows up on inspection action items?

Do you hold site safety meetings for field employees? If Yes, how often?

Yes No Daily Weekly Biweekly

☐ ☐ ☐ ☐ ☐

Do you hold site meetings where safety is addressed with management and field supervisors?

Yes No Weekly Biweekly Monthly

☐ ☐ ☐ ☐ ☐

Is pre-job safety instruction provided before to each new task? ☐ Yes ☐ No

Is the process documented? ☐ Yes ☐ No

Who leads the discussion?

Do you have a hazard assessment process? ☐ Yes ☐ No

- Are hazard assessments documented? If yes, how are hazard assessments communicated and implemented on each project? Who is responsible for leading the hazard assessment process?

Does your company have policies and procedures for environmental protection, spill clean-up, reporting, waste disposal, and recycling as part of the Health & Safety Program?

☐ Yes ☐ No

How does your company measure its H&S success?

- Attach separate sheet to explain

7. SAFETY STEWARDSHIP

7A Are incident reports and report summaries sent to the following and how often?

	Yes	No	Monthly	Quarterly	Annually
Project/Site Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety Director/Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
/Chief Executive Officer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7B How are incident records and summaries kept? How often are they reported internally?

	Yes	No	Monthly	Quarterly	Annually
Incidents totaled for the entire company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incidents totaled by project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by superintendent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by foreman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7C How are the costs of individual incidents kept? How often are they reported internally?

	Yes	No	Monthly	Quarterly	Annually
Costs totaled for the entire company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Costs totaled by project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by superintendent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Subtotaled by foreman/general foreman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7D Does your company track non-injury incidents?

	Yes	No	Monthly	Quarterly	Annually
Near Miss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property Damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8 PERSONNEL

List key health and safety officers planned for this project. Attach resume.

Name	Position/Title	Designation

Supply name, address and phone number of your company's corporate health and safety representative. Does this individual have responsibilities other than health, safety and environment?

Name	Address	Telephone Number

Other responsibilities:

9 REFERENCES

List the last three company's your form has worked for that could verify the quality and management commitment to your occupational Health & Safety program

Name and Company	Address	Phone Number

T2.2-05b Health and Safety Cost Breakdown (Port of Port Elizabeth)

Note to tenderers: Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

Tenderer (Company)	Responsible Person	Designation	Date
Project/Tender Title	Project/Tender No.	Project Location / Description	

#	Cost element	Unit Cost (R)	# of Units	Total Cost (R)
1.	Human Resources			
2.	Systems Documentation			
3.	Meetings & Administration			
4.	H&S Training			
5.	PPE & Safety Equipment			
6.	Signage & Barricading			
7.	Workplace Facilities			
8.	Emergency & Rescue Measures			
9.	Hygiene Surveys & Monitoring			
10.	Medical Surveillance			
11.	Safe Transport of Workers			
12.	HazMat Management (e.g. asbestos /silica)			
13.	Substance Abuse Testing (3 kits @R500 pm)			
14.	H&S Reward & Recognition			

Total Health and Safety Estimate (R)	
Total Estimate Value (R)	
H&S Cost as % of Tender value	

T2.2-06a: Evaluation Schedule: Previous Experience

(Port of East London)

Note to Tenderers: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

Previous Experience - Tenderers are required to demonstrate performance/experience in the delivery of comparable projects of similar size and nature by supplying the following:

- A list of past/current comparable projects.
- Previous experience of similar *Works* as detailed in the *Scope of Works* (the *Works Information*) with reference to:
 1. Geotechnical drilling (vertical and inclined – as applicable to portion(s) of Work tendered for), in-situ testing and sampling.
 2. Drilling/working over water from a floating barge/platform.
 3. Test pitting, in-situ DCP testing and sampling.
 4. Procurement/management of a SANAS accredited civil engineering testing laboratory.
- Sufficient references to substantiate experience indicated (Client name and contact details, project description, duration and Contract value).

Index of documentation attached to this schedule

	DOCUMENT NAME
1	
2	
3	
4	
5	
6	
7	

The table below will be used as guidelines for scoring/evaluating the Previous Experience submitted by the Tenderer:

Elements and weight	Guidelines for scoring/evaluating the Previous Experience	
(25) Borehole drilling (vertical and inclined), in-situ testing and sampling (9) Working on a floating barge/ platform (5) Test pitting, in-situ DCP testing and sampling (4) Laboratory testing (7)	Score 0	The Tenderer failed to address the question/issue and has submitted no information or inadequate/irrelevant information to determine a score.
	Score 20	The Tenderer's experience is very limited to the project(s). < 2 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 1 water-based drilling project for working on a floating barge/platform element.
	Score 40	The Tenderer has limited experience. > 2 and < 4 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 2 water-based drilling projects for working on a floating barge/ platform element.
	Score 60	Tenderer has moderate levels of experience. > 4 and < 7 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 3 water-based drilling projects for working on a floating barge/ platform element.
	Score 80	Tenderer has extensive experience in relation to the project(s). > 7 and < 10 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 4 water-based drilling projects for working on a floating barge/ platform element.
	Score 100	Tenderer has outstanding experience in projects of a similar nature. > 10 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and > 4 water-based drilling projects for working on a floating barge/platform element.

T2.2-06b: Evaluation Schedule: Previous Experience

(Port of Port Elizabeth)

Note to Tenderers: Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

Previous Experience - Tenderers are required to demonstrate performance/experience in the delivery of comparable projects of similar size and nature by supplying the following:

- A list of past/current comparable projects.
- Previous experience of similar *Works* as detailed in the *Scope of Works* (the *Works Information*) with reference to:
 1. Geotechnical drilling (vertical and inclined – as applicable to portion(s) of Work tendered for), in-situ testing and sampling.
 2. Drilling/working over water from a floating barge/platform.
 3. Test pitting, in-situ DCP testing and sampling.
 4. Procurement/management of a SANAS accredited civil engineering testing laboratory.
- Sufficient references to substantiate experience indicated (Client name and contact details, project description, duration and Contract value).

Index of documentation attached to this schedule

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3	
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7	

The table below will be used as guidelines for scoring/evaluating the Previous Experience submitted by the Tenderer:

Elements and weight	Guidelines for scoring/evaluating the Previous Experience	
(25) Borehole drilling (vertical and inclined), in-situ testing and sampling (9) Working on a floating barge/ platform (5) Test pitting, in-situ DCP testing and sampling (4) Laboratory testing (7)	Score 0	The Tenderer failed to address the question/issue and has submitted no information or inadequate/irrelevant information to determine a score.
	Score 20	The Tenderer's experience is very limited to the project(s). < 2 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 1 water-based drilling project for working on a floating barge/platform element.
	Score 40	The Tenderer has limited experience. > 2 and < 4 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 2 water-based drilling projects for working on a floating barge/ platform element.
	Score 60	Tenderer has moderate levels of experience. > 4 and < 7 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 3 water-based drilling projects for working on a floating barge/ platform element.
	Score 80	Tenderer has extensive experience in relation to the project(s). > 7 and < 10 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and 4 water-based drilling projects for working on a floating barge/ platform element.
	Score 100	Tenderer has outstanding experience in projects of a similar nature. > 10 years' experience for borehole drilling (vertical and inclined), test pitting, in-situ testing, sampling and laboratory testing elements, and > 4 water-based drilling projects for working on a floating barge/platform element.

T2.2-07a: Evaluation Schedule: Method Statement

(Port of East London)

Note to Tenderers: Tenders are to only complete this section if they intend to bid for the Port of East London scope.

Method Statement - The Tenderers must sufficiently demonstrate the approach/methodology that will be employed to cover the *Scope* of the project(s).

- The Method Statement must respond to the *Scope of Works* (the *Works Information*) and outline the proposed methodology, including that relating to the programme, practicality, quality, health and safety, risk and environmental considerations.
- The Method Statement should articulate what added value the Tenderer will provide in achieving the stated objectives for the project(s).
- The Tenderer must as such explain his/her understanding of the objectives of the assignment and the *Employer's* stated and implied requirements, highlight the issues of importance, and explain the technical approach they would adopt to address them. The Method Statement should also correlate with the Tenderer's quality plan outlining the processes, procedures and associated resources, applied by whom and when, to meet the requirements and indicate how risks will be managed and what contribution can be made regarding value management.

In addition to general methodology for the project(s) please provide specific information for the following points:

1. Borehole drilling (vertical and inclined – as applicable to portion(s) of *Work* tendered for), floating barge/platform, in-situ testing and sampling.
2. Test pitting, in-situ DCP testing and sampling.
3. Laboratory testing.

Please note: Tenderers are required to provide detailed Method Statements for the categories as listed above. Each sub-category as listed will be scored based on the linear scale below, and will be averaged and weighed to provide a final score. Tenderers to note that they will not achieve an "acceptable" score should they not provide the information as required in this Returnable.

The Works must be executed in a parallel manner at both Ports, hence a provision must be made for one dedicated team per Port location.

The Tenderer must attach their Method Statement to this page. The Method Statement should not be longer than 8 pages.

The table below will be used as guidelines for scoring/evaluating the Method Statement submitted by the Tenderer:

Elements and weight	Guidelines for scoring/evaluating the Method Statement	
<p align="center">(25)</p> <p>Borehole drilling (vertical and inclined), floating barge/platform, in-situ testing and sampling (15)</p> <p>Test pitting, in-situ DCP testing and sampling (5)</p> <p>Laboratory testing (5)</p>	Score 0	The Tenderer has submitted no information or inadequate/irrelevant information to determine a score.
	Score 20	The methodology/approach and work alignment to project schedule is poorly presented, generic and not tailored to address the specific project objectives and methodology. Tenderer misunderstood the <i>Scope of Works</i> and does not deal with critical issues of the project(s).
	Score 40	Tenderer has submitted a Method Statement with major omissions and/or irregularities. The methodology/approach is not realistic, generic and not tailored to address the specific project objectives and methodology (unlikely to satisfy project objectives or requirements). The Tenderer misunderstood the <i>Scope of Works</i> and the methodology approach does not adequately deal with the critical characteristics of the project(s).
	Score 60	Tenderer has submitted a Method Statement with minor omissions and/or irregularities. Satisfactory response/solution to the particular aspect of the requirement and evidence given that the stated <i>Employer's</i> requirements will be met.
	Score 80	The methodology/approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The methodology/approach to manage activities is specifically tailored to the critical characteristics of the project(s). Approach clearly articulated and based on the project(s); the <i>Works</i> are aligned with project schedule. The proposed execution methodology will ensure that operations will not be disrupted.
	Score 100	Besides meeting the "80" rating, the important issues are approached in an innovative and efficient way, indicating that the Tenderer has outstanding knowledge of state-of-the-art approaches. The methodology approach details ways to improve the project outcomes and the quality of the outputs. Risks are adequately identified and managed.

T2.2-07b: Evaluation Schedule: Method Statement

(Port of Port Elizabeth)

Note to Tenderers: Tenders are to only complete this section if they intend to bid for the Port of Port of Port Elizabeth scope.

Method Statement - The Tenderers must sufficiently demonstrate the approach/methodology that will be employed to cover the *Scope* of the project(s).

- The Method Statement must respond to the *Scope of Works* (the *Works Information*) and outline the proposed methodology, including that relating to the programme, practicality, quality, health and safety, risk and environmental considerations.
- The Method Statement should articulate what added value the Tenderer will provide in achieving the stated objectives for the project(s).
- The Tenderer must as such explain his/her understanding of the objectives of the assignment and the *Employer's* stated and implied requirements, highlight the issues of importance, and explain the technical approach they would adopt to address them. The Method Statement should also correlate with the Tenderer's quality plan outlining the processes, procedures and associated resources, applied by whom and when, to meet the requirements and indicate how risks will be managed and what contribution can be made regarding value management.

In addition to general methodology for the project(s) please provide specific information for the following points:

1. Borehole drilling (vertical and inclined – as applicable to portion(s) of *Work* tendered for), floating barge/platform, in-situ testing and sampling.
2. Test pitting, in-situ DCP testing and sampling.
3. Laboratory testing.

Please note: Tenderers are required to provide detailed Method Statements for the categories as listed above. Each sub-category as listed will be scored based on the linear scale below, and will be averaged and weighed to provide a final score. Tenderers to note that they will not achieve an "acceptable" score should they not provide the information as required in this Returnable.

The Works must be executed in a parallel manner at both Ports, hence a provision must be made for one dedicated team per Port location.

The Tenderer must attach their Method Statement to this page. The Method Statement should not be longer than 8 pages.

The table below will be used as guidelines for scoring/evaluating the Method Statement submitted by the Tenderer:

Elements and weight	Guidelines for scoring/evaluating the Method Statement	
<p align="center">(25)</p> <p>Borehole drilling (vertical and inclined), floating barge/ platform, in-situ testing and sampling (15)</p> <p>Test pitting, in-situ DCP testing and sampling (5)</p> <p>Laboratory testing (5)</p>	Score 0	The Tenderer has submitted no information or inadequate/irrelevant information to determine a score.
	Score 20	The methodology/approach and work alignment to project schedule is poorly presented, generic and not tailored to address the specific project objectives and methodology. Tenderer misunderstood the <i>Scope of Works</i> and does not deal with critical issues of the project(s).
	Score 40	Tenderer has submitted a Method Statement with major omissions and/or irregularities. The methodology/approach is not realistic, generic and not tailored to address the specific project objectives and methodology (unlikely to satisfy project objectives or requirements). The Tenderer misunderstood the <i>Scope of Works</i> and the methodology approach does not adequately deal with the critical characteristics of the project(s).
	Score 60	Tenderer has submitted a Method Statement with minor omissions and/or irregularities. Satisfactory response/solution to the particular aspect of the requirement and evidence given that the stated <i>Employer's</i> requirements will be met.
	Score 80	The methodology/approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The methodology/approach to manage activities is specifically tailored to the critical characteristics of the project(s). Approach clearly articulated and based on the project(s); the <i>Works</i> are aligned with project schedule. The proposed execution methodology will ensure that operations will not be disrupted.
	Score 100	Besides meeting the "80" rating, the important issues are approached in an innovative and efficient way, indicating that the Tenderer has outstanding knowledge of state-of-the-art approaches. The methodology approach details ways to improve the project outcomes and the quality of the outputs. Risks are adequately identified and managed.

T2.2-08: Authority to submit a Tender

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for his category of organisation or alternatively attach a certified copy of a company / organisation document which provides the same information for the relevant category as requested here.

A - COMPANY	B - PARTNERSHIP	C - JOINT VENTURE	D - SOLE PROPRIETOR

A. Certificate for Company

I, _____, chairperson of the board of directors of _____
 _____, hereby confirm that by resolution of the board taken on ____
 _____ (date), Mr/Ms _____, acting in the capacity of _____
 _____, was authorised to sign all documents in connection with this tender offer and any
 contract resulting from it on behalf of the company.

Signed

Date

Name

Position

Chairman of the Board of Directors

B. Certificate for Partnership

We, the undersigned, being the **key partners** in the business trading as _____
 _____ hereby authorise Mr/Ms _____, acting in the capacity of _____
 _____, to sign all documents in connection with the tender offer for Contract _____
 _____ and any contract resulting from it on our behalf.

Name	Address	Signature	Date

NOTE: This certificate is to be completed and signed by the full number of Partners necessary to commit the Partnership. Attach additional pages if more space is required.

C. Certificate for Joint Venture

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

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Furthermore we attach to this Schedule a copy of the joint venture agreement which incorporates a statement that all partners are liable jointly and severally for the execution of the contract and that the lead partner is authorised to incur liabilities, receive instructions and payments and be responsible for the entire execution of the contract for and on behalf of any and all the partners.

Name of firm	Address	Authorising signature, name (in caps) and capacity

D. Certificate for Sole Proprietor

I, _____, hereby confirm that I am the sole owner of the business trading as _____.

Signed	_____	Date	_____
Name	_____	Position	Sole Proprietor

T2.2-09 Record of Addenda to Tender Documents

The tenderer hereby confirms that the following communications were received from the *Employer* before the submission of this tender offer, amending the tender documents and have been taken all the Addenda into account in this tender offer:

	Date	Title or Details of Addenda
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attach additional pages if more space is required.

T2.2-10 Letter/s of Good Standing with the Workmen's Compensation Fund

Attached to this schedule is the Letter/s of Good Standing.

- 1.
- 2.
- 3.
- 4.

Name of Company/Members of Joint Venture:

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

Description of the Services: Geotechnical Investigation (Marine and Land), various locations/sites
(Port of PE and Port of EL).

T2.2-11: Risk Management

Tenderers to review the potential risks associated with the Scope of Works. Demonstrate and outline measures to evaluate and mitigate the perceived risk elements relating to interfaces and commissioning of the scope taking into account the cost, schedule, quality, health and safety and the environment. The tenderer to comprehensively complete a detailed initial risk register with the potential risk associated with the scope. Furthermore, the tenderer shall indicate % probability, % impact, and mitigation plan as the minimum.

Risk category	Details of risk	% Probability	% Impact	Mitigation plan	Where implemented	Results of implementation

[illegible]

T2.2-13: Schedule of Proposed Subcontractors

The tenderer is required to provide details of all the sub-contractors that will be utilised in the execution of the *works*.

Note to tenderers:

- In terms of PPPFA Regulation 6 (5), A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract.
- In terms of PPPFA Regulation 12 (3), A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor that the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the contract.

Tenderer to note that after award, any deviations from this list of proposed sub-contractors will be subject to acceptance by the *Project Manager* in terms of the Conditions of Contract.

Provide information of the Sub-contractors below:

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities		Rural/ Underdeveloped areas/ Townships		Military Veterans
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	

% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships	Military Veterans
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

T2.2-15: ANNEX G Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner/member must be completed and submitted.

Section 1: Name of enterprise: _____

Section 2: VAT registration number, if any: _____

Section 3: CIDB registration number, if any: _____

Section 4: CSD number: _____

Section 5: Particulars of sole proprietors and partners in partnerships

Name	Identity number	Personal income tax number

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 6: Particulars of companies and close corporations

Company registration number _____

Close corporation number _____

Tax reference number: _____

Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.

Section 8: The attached SBD 6 must be completed for each tender and be attached as a requirement.

Section 9: The attached SBD8 must be completed for each tender and be attached as a requirement.

Section 10: The attached SBD9 must be completed for each tender and be attached as a requirement.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed	Date
_____	_____
Name	Position
_____	_____
Enterprise name	

SBD 4**DECLARATION OF INTEREST**

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

- the bidder is employed by the state; and/or

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

¹“State” means –

- a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999); any municipality or municipal entity;
- b) provincial legislature;
- c) national Assembly or the national Council of provinces; or
- d) Parliament.

SBD 4

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

2.1 Full Name of bidder or his or her representative: _____

2.2 Identity Number: _____

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

2.4 Company Registration Number: _____

2.5 Tax Reference Number: _____

2.6 VAT Registration Number: _____

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

2.7 Are you or any person connected with the bidder presently employed by the state?

YES / NO

2.7.1 If so, furnish the following particulars:

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

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

- Position occupied in the state institution:

Any other particulars:

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

SBD 4

2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?

YES / NO

2.7.3 If yes, did you attached proof of such authority to the bid document?

YES / NO

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

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

2.8 Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?

YES / NO

2.8.1 If so, furnish particulars:

2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?

YES / NO

2.8.2 If so, furnish particulars.

SBD 4

2.9 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?

YES/NO

2.9.1 If so, furnish particulars.

2.10 Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract?

YES/NO

2.10.1 If so, furnish particulars:

SBD 4**3 Full details of directors / trustees / members / shareholders.**

Full Name	Identity Number	Personal Tax Reference Number	State Employee Number / Persal Number

SBD 4

4 DECLARATION

I, THE UNDERSIGNED (NAME) _____ CERTIFY
THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF
PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS
DECLARATION PROVE TO BE FALSE.

Signature

Date

Position

Name of bidder

SBD 6.1

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL
PROCUREMENT REGULATIONS 2017**

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

Transnet will award preference points to companies who provide valid proof of their B-BBEE status using either the latest version of the generic Codes of Good Practice or Sector Specific Codes (if applicable).

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

1. GENERAL CONDITIONS

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

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 20 preference point system shall be applicable. Despite the stipulated preference point system, Transnet shall use the lowest acceptable bid to determine the applicable preference point system in a situation where all received acceptable bids are received outside the stated preference point system.

1.3 Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contribution.

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

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

1.5 Failure on the part of a bidder to submit proof of B-BBEE status level of contributor together with the bid will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

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

2. DEFINITIONS

- (a) **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (c) **"B-BBEE status level of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the supply/provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **"EME"** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (g) **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents
- (h) **"Price"** includes all applicable taxes less all unconditional discounts.
- (i) **"Proof of B-BBEE Status Level of Contributor"**
 - i) the B-BBBEE status level certificate issued by an authorised body or person;
 - ii) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or
 - iii) any other requirement prescribed in terms of the B-BBEE Act.
- (j) **"QSE"** means a Qualifying Small EEnterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (k) **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:
80/20

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for comparative price of bid under consideration

P_t = Comparative price of bid under consideration

P_{\min} = Comparative price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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

4.2 The table below indicates the required proof of B-BBEE status depending on the category of enterprises:

Enterprise	B-BBEE Certificate & Sworn Affidavit
Large	Certificate issued by SANAS accredited verification agency
QSE	Certificate issued by SANAS accredited verification agency Sworn Affidavit signed by the authorised QSE representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership (only black-owned QSEs - 51% to 100% Black owned) [Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at www.dti.gov.za/economic_empowerment/bee_codes.jsp .]

EME³	<p>Sworn Affidavit signed by the authorised EME representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership</p> <p>Certificate issued by CIPC (formerly CIPRO) confirming annual turnover and black ownership</p> <p>Certificate issued by SANAS accredited verification agency only if the EME is being measured on the QSE scorecard</p>
------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- 4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.
- 4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- 4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.
- 4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

5. BID DECLARATION

- 5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 6.1

- 6.1 B-BBEE Status Level of Contribution: . = (maximum of 20 points)
- (Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

³ In terms of the Implementation Guide: Preferential Procurement Regulations, 2017, Version 2, paragraph 11.11 provides that in the Transport Sector, EMEs can provide a letter from accounting officer or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency as the Transport Sector Code has not been aligned to the generic Codes. EMEs in the Transport Sector are not allowed to provide a sworn affidavit as the generic codes are not applicable to them.

7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

YES		NO	
-----	--	----	--

7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE.

(***Tick applicable box***)

YES		NO	
-----	--	----	--

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

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

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

8.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional Supplier/Service provider
- ☐ Other Suppliers/Service providers, e.g. transporter, etc.

[*TICK APPLICABLE BOX*]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If a bidder submitted false information regarding its B-BBEE status level of contributor, local production and content, or any other matter required in terms of the Preferential Procurement Regulations, 2017 which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) if the successful bidder subcontracted a portion of the bid to another person without disclosing it, Transnet reserves the right to penalise the bidder up to 10 percent of the value of the contract;
 - (e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and

(f) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE:

SBD 8**DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

1. This Standard Bidding Document must form part of all bids invited.
2. It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.

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

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's database as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

SBD 8

CERTIFICATION

**I, THE UNDERSIGNED (FULL NAME)..... CERTIFY
THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND
CORRECT.**

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

Signature

Date

Position

Name of Tenderer

SBD 9**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

1. This Standard Bidding Document (SBD) must form part of all bids/quotes⁴ invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).⁵ Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
3. Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - (a) disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - (b) cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
4. This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

⁴ Includes price quotations, advertised competitive bids, limited bids and proposals.

⁵ Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

SBD 9**CERTIFICATE OF INDEPENDENT QUOTATION/PROPOSAL DETERMINATION**

I, the undersigned, in submitting the accompanying quote:

(Quote Number and Description)

in response to the invitation for the quote made by:

(Name of Institution)

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

I certify, on behalf of: _____ that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

SBD 9

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium⁶ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

⁶ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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

Signature

Date

Position

Name of bidder

T2.2-16 NON-DISCLOSURE AGREEMENT

THIS AGREEMENT is made effective as of day of 20..... by and between:

Note to tenderers: This Non-Disclosure Agreement is to be completed and signed by an authorised signatory:

Transnet SOC Ltd (Registration No. 1990/000900/30), a company incorporated and existing under the laws of South Africa, having its principal place of business at 138 Eloff Street, Braamfontein, Johannesburg, 2000

and

..... (Registration No.), a private company incorporated and existing under the laws of South Africa having its principal place of business at

.....
.....

WHEREAS

Transnet and the Company wish to exchange Information [as defined below] and it is envisaged that each party may from time to time receive Information relating to the other in respect thereof. In consideration of each party making available to the other such Information, the parties jointly agree that any dealings between them shall be subject to the terms and conditions of this Agreement which themselves will be subject to the parameters of the Bid Document.

IT IS HEREBY AGREED

1. INTERPRETATION

In this Agreement:

- 1.1 **Agents** mean directors, officers, employees, agents, professional advisers, contractors or sub-contractors, or any Group member;
- 1.2 **Bid or Bid Document** means Transnet's Request for Information [**RFI**] Request for Proposal [**RFP**] or Request for Quotation [**RFQ**], as the case may be;
- 1.3 **Confidential Information** means any information or other data relating to one party [the **Disclosing Party**] and/or the business carried on or proposed or intended to be carried on by that party and which is made available for the purposes of the Bid to the other party [the **Receiving Party**] or its Agents by the Disclosing Party or its Agents or recorded in agreed minutes following oral disclosure and any other information otherwise made available by the Disclosing Party or its Agents to the Receiving Party or its Agents, whether before, on or after the date of this Agreement, and whether in writing or otherwise, including any information, analysis or specifications derived from, containing or reflecting such information but excluding information which:
 - 1.3.1 is publicly available at the time of its disclosure or becomes publicly available [other than as a result of disclosure by the Receiving Party or any of its Agents contrary to the terms of this Agreement]; or

- 1.3.2 was lawfully in the possession of the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] free of any restriction as to its use or disclosure prior to its being so disclosed; or
- 1.3.3 following such disclosure, becomes available to the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] from a source other than the Disclosing Party or its Agents, which source is not bound by any duty of confidentiality owed, directly or indirectly, to the Disclosing Party in relation to such information;
- 1.4 **Group** means any subsidiary, any holding company and any subsidiary of any holding company of either party; and
- 1.5 **Information** means all information in whatever form including, without limitation, any information relating to systems, operations, plans, intentions, market opportunities, know-how, trade secrets and business affairs whether in writing, conveyed orally or by machine-readable medium.

2. CONFIDENTIAL INFORMATION

- 2.1 All Confidential Information given by one party to this Agreement [the **Disclosing Party**] to the other party [the **Receiving Party**] will be treated by the Receiving Party as secret and confidential and will not, without the Disclosing Party's written consent, directly or indirectly communicate or disclose [whether in writing or orally or in any other manner] Confidential Information to any other person other than in accordance with the terms of this Agreement.
- 2.2 The Receiving Party will only use the Confidential Information for the sole purpose of technical and commercial discussions between the parties in relation to the Bid or for the subsequent performance of any contract between the parties in relation to the Bid.
- 2.3 Notwithstanding clause 2.1 above, the Receiving Party may disclose Confidential Information:
- 2.3.1 to those of its Agents who strictly need to know the Confidential Information for the sole purpose set out in clause 2.2 above, provided that the Receiving Party shall ensure that such Agents are made aware prior to the disclosure of any part of the Confidential Information that the same is confidential and that they owe a duty of confidence to the Disclosing Party. The Receiving Party shall at all times remain liable for any actions of such Agents that would constitute a breach of this Agreement; or
- 2.3.2 to the extent required by law or the rules of any applicable regulatory authority, subject to clause 2.4 below.
- 2.4 In the event that the Receiving Party is required to disclose any Confidential Information in accordance with clause 2.3.2 above, it shall promptly notify the Disclosing Party and cooperate with the Disclosing Party regarding the form, nature, content and purpose of such disclosure or any action which the Disclosing Party may reasonably take to challenge the validity of such requirement.
- 2.5 In the event that any Confidential Information shall be copied, disclosed or used otherwise than as permitted under this Agreement then, upon becoming aware of the same, without prejudice to any rights or remedies of the Disclosing Party, the Receiving Party shall as soon as practicable notify the Disclosing Party of such event and if requested take such steps [including the institution of legal proceedings] as shall be necessary to remedy [if capable of remedy] the default and/or to prevent further unauthorised copying, disclosure or use.

- 2.6 All Confidential Information shall remain the property of the Disclosing Party and its disclosure shall not confer on the Receiving Party any rights, including intellectual property rights over the Confidential Information whatsoever, beyond those contained in this Agreement.

3. RECORDS AND RETURN OF INFORMATION

- 3.1 The Receiving Party agrees to ensure proper and secure storage of all Information and any copies thereof.
- 3.2 The Receiving Party shall keep a written record, to be supplied to the Disclosing Party upon request, of the Confidential Information provided and any copies made thereof and, so far as is reasonably practicable, of the location of such Confidential Information and any copies thereof.
- 3.3 The Company shall, within 7 [seven] days of receipt of a written demand from Transnet:
- 3.3.1 return all written Confidential Information [including all copies]; and
- 3.3.2 expunge or destroy any Confidential Information from any computer, word processor or other device whatsoever into which it was copied, read or programmed by the Company or on its behalf.
- 3.4 The Company shall on request supply a certificate signed by a director as to its full compliance with the requirements of clause 3.3.2 above.

4. ANNOUNCEMENTS

- 4.1 Neither party will make or permit to be made any announcement or disclosure of its prospective interest in the Bid without the prior written consent of the other party.
- 4.2 Neither party shall make use of the other party's name or any information acquired through its dealings with the other party for publicity or marketing purposes without the prior written consent of the other party.

5. DURATION

The obligations of each party and its Agents under this Agreement shall survive the termination of any discussions or negotiations between the parties regarding the Bid and continue thereafter for a period of 5 [five] years.

6. PRINCIPAL

Each party confirms that it is acting as principal and not as nominee, agent or broker for any other person and that it will be responsible for any costs incurred by it or its advisers in considering or pursuing the Bid and in complying with the terms of this Agreement.

7. ADEQUACY OF DAMAGES

Nothing contained in this Agreement shall be construed as prohibiting the Disclosing Party from pursuing any other remedies available to it, either at law or in equity, for any such threatened or actual breach of this Agreement, including specific performance, recovery of damages or otherwise.

8. PRIVACY AND DATA PROTECTION

- 8.1 The Receiving Party undertakes to comply with South Africa's general privacy protection in terms Section 14 of the Bill of Rights in connection with this Bid and shall procure that its personnel shall observe the

provisions of such Act [as applicable] or any amendments and re-enactments thereof and any regulations made pursuant thereto.

- 8.2 The Receiving Party warrants that it and its Agents have the appropriate technical and organisational measures in place against unauthorised or unlawful processing of data relating to the Bid and against accidental loss or destruction of, or damage to such data held or processed by them.

9. GENERAL

- 9.1 Neither party may assign the benefit of this Agreement, or any interest hereunder, except with the prior written consent of the other, save that Transnet may assign this Agreement at any time to any member of the Transnet Group.
- 9.2 No failure or delay in exercising any right, power or privilege under this Agreement will operate as a waiver of it, nor will any single or partial exercise of it preclude any further exercise or the exercise of any right, power or privilege under this Agreement or otherwise.
- 9.3 The provisions of this Agreement shall be severable in the event that any of its provisions are held by a court of competent jurisdiction or other applicable authority to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law.
- 9.4 This Agreement may only be modified by a written agreement duly signed by persons authorised on behalf of each party.
- 9.5 Nothing in this Agreement shall constitute the creation of a partnership, joint venture or agency between the parties.
- 9.6 This Agreement will be governed by and construed in accordance with South African law and the parties irrevocably submit to the exclusive jurisdiction of the South African courts.

T2.2-17: TENDER DECLARATION FORM

NAME OF COMPANY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this TENDER and the requirements requested from tenderers in responding to this TENDER have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below: *[Respondent to indicate if this section is not applicable]*

FULL NAME OF OWNER/MEMBER/DIRECTOR/

PARTNER/SHAREHOLDER:

ADDRESS:

Indicate nature of relationship with Transnet:

[Failure to furnish complete and accurate information in this regard may lead to the disqualification of your response and may preclude a Respondent from doing future business with Transnet]

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with Transnet) which could unfairly advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

6. We accept that any dispute pertaining to this tender will be resolved through the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).
7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of the Ombudsman without having to follow a formal court process to have such award or decision set aside.

For and on behalf of duly authorised thereto
Name:
Signature:
Date:

IMPORTANT NOTICE TO RESPONDENTS

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of tenders exceeding R5,000,000.00 (five million S.A. Rand) in value. Should a Respondent have any material concern regarding an tender process which meets this value threshold, a complaint may be lodged with Transnet's Procurement Ombudsman for further investigation.
- It is incumbent on the Respondent to familiarise himself/herself with the Terms of Reference for the Transnet Procurement Ombudsman, details of which are available for review at Transnet's website www.transnet.net.
- An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to procurement.ombud@transnet.net
- For transactions below the R5, 000,000.00 (five million S.A. Rand) threshold, a complaint may be lodged with the Chief Procurement Officer of the relevant Transnet Operating Division.
- All Respondents should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a bidder on its List of Excluded Bidders.

T2.2-18: REQUEST FOR PROPOSAL – BREACH OF LAW

NAME OF COMPANY: _____

I / We _____ do hereby certify that ***I/we have/have not been*** found guilty during the preceding 5 (five) years of a serious breach of law, including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or other administrative body. The type of breach that the Tenderer is required to disclose excludes relatively minor offences or misdemeanours, e.g. traffic offences.

Where found guilty of such a serious breach, please disclose:

NATURE OF BREACH:

DATE OF BREACH: _____

Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Tenderer from the tendering process, should that person or company have been found guilty of a serious breach of law, tribunal or regulatory obligation.

Signed on this _____ day of _____ 20____

SIGNATURE OF TENDERER

T2.2-19: Certificate of Acquaintance with Tender Documents

NAME OF TENDERING ENTITY:

1. By signing this certificate I/we acknowledge that I/we have made myself/ourselves thoroughly familiar with, and agree with all the conditions governing this RFP. This includes those terms and conditions of the Contract, the Supplier Integrity Pact, Non-Disclosure Agreement etc. contained in any printed form stated to form part of the documents thereof, but not limited to those listed in this clause.
2. I/we furthermore agree that Transnet SOC Ltd shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any TENDER/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.
3. I/we understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect.
4. For the purposes of this Certificate and the accompanying Tender, I/we understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - a) has been requested to submit a Tender in response to this Tender invitation;
 - b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
 - c) provides the same Services as the Tenderer and/or is in the same line of business as the Tenderer
5. The Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive Tendering.
6. In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) geographical area where Services will be rendered [market allocation]
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a Tender;
 - e) the submission of a Tender which does not meet the specifications and conditions of the TENDER; or
 - f) Tendering with the intention not winning the Tender.

-
7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this TENDER relates.
 8. The terms of the accompanying Tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.
 9. I/We am/are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [NPA] for criminal investigation. In addition, Tenderers that submit suspicious Tenders may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signed on this ____ day of _____ 20__

SIGNATURE OF TENDERER

T2.2-20 Service Provider Integrity Pact

Important Note: All potential tenderers must read this document and certify in the RFP Declaration Form that they have acquainted themselves with, and agree with the content.

The contract with the successful tenderer will automatically incorporate this Integrity Pact and shall be deemed as part of the final concluded contract.

INTEGRITY PACT

Between

TRANSNET SOC LTD

Registration Number: 1990/000900/30

("Transnet")

and

The Contractor (hereinafter referred to as the "Tenderer/Service Providers/Contractor")

PREAMBLE

Transnet values full compliance with all relevant laws and regulations, ethical standards and the principles of economical use of resources, fairness and transparency in its relations with its Tenderers/Service Providers/Contractors.

In order to achieve these goals, Transnet and the Tenderer/Service Provider/Contractor hereby enter into this agreement hereinafter referred to as the "Integrity Pact" which will form part of the Tenderer's/Service Provider's/Contractor's application for registration with Transnet as a vendor.

The general purpose of this Integrity Pact is to agree on avoiding all forms of dishonesty, fraud and corruption by following a system that is fair, transparent and free from any undue influence prior to, during and subsequent to the currency of any procurement and/or reverse logistics event and any further contract to be entered into between the Parties, relating to such event.

All Tenderers/Service Providers/Contractor's will be required to sign and comply with undertakings contained in this Integrity Pact, should they want to be registered as a Transnet vendor.

1 OBJECTIVES

- 1.1 Transnet and the Tenderer/Service Provider/Contractor agree to enter into this Integrity Pact, to avoid all forms of dishonesty, fraud and corruption including practices that are anti-competitive in nature, negotiations made in bad faith and under-pricing by following a system that is fair, transparent and free from any influence/unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:
 - a) Enable Transnet to obtain the desired contract at a reasonable and competitive price in conformity to the defined specifications of the works, goods and services; and
 - b) Enable Tenderers/Service Providers/Contractors to abstain from bribing or participating in any corrupt practice in order to secure the contract.

2 COMMITMENTS OF TRANSNET

Transnet commits to take all measures necessary to prevent dishonesty, fraud and corruption and to observe the following principles:

- 2.1 Transnet hereby undertakes that no employee of Transnet connected directly or indirectly with the sourcing event and ensuing contract, will demand, take a

promise for or accept directly or through intermediaries any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Tenderer, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the tendering process, Tender evaluation, contracting or implementation process related to any contract.

- 2.2 Transnet will, during the registration and tendering process treat all Tenderers/ Service Providers/Contractor with equity, transparency and fairness. Transnet will in particular, before and during the registration process, provide to all Tenderers/ Service Providers/Contractors the same information and will not provide to any Tenderers/Service Providers/Contractors confidential/additional information through which the Tenderers/Service Providers/Contractors could obtain an advantage in relation to any tendering process.
- 2.3 Transnet further confirms that its employees will not favour any prospective Tenderers/Service Providers/Contractors in any form that could afford an undue advantage to a particular Tenderer during the tendering stage, and will further treat all Tenderers/Service Providers/Contractors participating in the tendering process in a fair manner.
- 2.4 Transnet will exclude from the tender process such employees who have any personal interest in the Tenderers/Service Providers/Contractors participating in the tendering process.

3 OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER

- 3.1 Transnet has a '**Zero Gifts**' Policy. No employee is allowed to accept gifts, favours or benefits.
 - a) Transnet officials and employees **shall not** solicit, give or accept, or from agreeing to solicit, give, accept or receive directly or indirectly, any gift, gratuity, favour, entertainment, loan, or anything of monetary value, from any person or juridical entities in the course of official duties or in connection with any operation being managed by, or any transaction which may be affected by the functions of their office.
 - b) Transnet officials and employees **shall not** solicit or accept gifts of any kind, from vendors, suppliers, customers, potential employees, potential vendors, and suppliers, or any other individual or organisation irrespective of the value.
 - c) Under **no circumstances** should gifts, business courtesies or hospitality packages be accepted from or given to prospective suppliers participating in a tender process at the respective employee's Operating Division, regardless of retail value.

- d) Gratuities, bribes or kickbacks of any kind must never be solicited, accepted or offered, either directly or indirectly. This includes money, loans, equity, special privileges, personal favours, benefit or services. Such favours will be considered to constitute corruption.

3.2 The Tenderer/Service Provider/Contractor commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its Tender or during any ensuing contract stage in order to secure the contract or in furtherance to secure it and in particular the Tenderer/Service Provider/Contractor commits to the following:

- a) The Tenderer/Service Provider/Contractor will not, directly or through any other person or firm, offer, promise or give to Transnet or to any of Transnet's employees involved in the tendering process or to any third person any material or other benefit or payment, in order to obtain in exchange an advantage during the tendering process; and
- b) The Tenderer/Service Provider/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any employee of Transnet, connected directly or indirectly with the tendering process, or to any person, organisation or third party related to the contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the contract.

3.3 The Tenderer/Service Provider/Contractor will not collude with other parties interested in the contract to preclude a competitive Tender price, impair the transparency, fairness and progress of the tendering process, Tender evaluation, contracting and implementation of the contract. The Tenderer / Service Provider further commits itself to delivering against all agreed upon conditions as stipulated within the contract.

3.4 The Tenderer/Service Provider/Contractor will not enter into any illegal or dishonest agreement or understanding, whether formal or informal with other Tenderers/Service Providers/Contractors. This applies in particular to certifications, submissions or non-submission of documents or actions that are restrictive or to introduce cartels into the tendering process.

3.5 The Tenderer/Service Provider/Contractor will not commit any criminal offence under the relevant anti-corruption laws of South Africa or any other country. Furthermore, the Tenderer/Service Provider/Contractor will not use for illegitimate purposes or for restrictive purposes or personal gain, or pass on to others, any information provided by Transnet as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- 3.6 A Tenderer/Service Provider/Contractor of foreign origin shall disclose the name and address of its agents or representatives in South Africa, if any, involved directly or indirectly in the registration or tendering process. Similarly, the Tenderer / Service Provider / Contractor of South African nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the registration or tendering process.
- 3.7 The Tenderer/Service Provider/Contractor will not misrepresent facts or furnish false or forged documents or information in order to influence the tendering process to the advantage of the Tenderer/Service Provider/Contractor or detriment of Transnet or other competitors.
- 3.8 Transnet may require the Tenderer/Service Provider/Contractor to furnish Transnet with a copy of its code of conduct. Such code of conduct must address the compliance programme for the implementation of the code of conduct and reject the use of bribes and other dishonest and unethical conduct.
- 3.9 The Tenderer/Service Provider/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 3.10 The Tenderer/Service Provider/Contractor confirms that they will uphold the ten principles of the United Nations Global Compact (UNGC) in the fields of Human Rights, Labour, Anti-Corruption and the Environment when undertaking business with Transnet as follows:
- a) Human Rights
- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
 - Principle 2: make sure that they are not complicit in human rights abuses.
- b) Labour
- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
 - Principle 4: the elimination of all forms of forced and compulsory labour;
 - Principle 5: the effective abolition of child labour; and
 - Principle 6: the elimination of discrimination in respect of employment and occupation.
- c) Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

d) Anti-Corruption

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

4 INDEPENDENT TENDERING

4.1 For the purposes of that Certificate in relation to any submitted Tender, the Tenderer declares to fully understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:

- a) has been requested to submit a Tender in response to this Tender invitation;
- b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
- c) provides the same Goods and Services as the Tenderer and/or is in the same line of business as the Tenderer.

4.2 The Tenderer has arrived at his submitted Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive tendering.

4.3 In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

- a) prices;
- b) geographical area where Goods or Services will be rendered [market allocation];
- c) methods, factors or formulas used to calculate prices;
- d) the intention or decision to submit or not to submit, a Tender;
- e) the submission of a Tender which does not meet the specifications and conditions of the RFP; or

- f) tendering with the intention of not winning the Tender.
- 4.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Goods or Services to which his/her tender relates.
- 4.5 The terms of the Tender as submitted have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.
- 4.6 Tenderers are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [**NPA**] for criminal investigation and/or may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.
- 4.7 Should the Tenderer find any terms or conditions stipulated in any of the relevant documents quoted in the Tender unacceptable, it should indicate which conditions are unacceptable and offer alternatives by written submission on its company letterhead, attached to its submitted Tender. Any such submission shall be subject to review by Transnet's Legal Counsel who shall determine whether the proposed alternative(s) are acceptable or otherwise, as the case may be.

5 DISQUALIFICATION FROM TENDERING PROCESS

- 5.1 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3 of this Integrity Pact or in any other form such as to put its reliability or credibility as a Tenderer/Service Provider/Contractor into question, Transnet may reject the Tenderer's / Service Provider's / Contractor's application from the registration or tendering process and remove the Tenderer/Service Provider/Contractor from its database, if already registered.
- 5.2 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3, or any material violation, such as to put its reliability or credibility into question. Transnet may after following due procedures and at its own discretion also exclude the Tenderer/Service Provider

/Contractor from future tendering processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, which will include amongst others the number of transgressions, the position of the transgressors within the company hierarchy of the Tenderer/Service Provider/Contractor and the amount of the damage. The exclusion will be imposed for up to a maximum of 10 (ten) years. However, Transnet reserves the right to impose a longer period of exclusion, depending on the gravity of the misconduct.

- 5.3 If the Tenderer/Service Provider/Contractor can prove that it has restored the damage caused by it and has installed a suitable corruption prevention system, or taken other remedial measures as the circumstances of the case may require, Transnet may at its own discretion revoke the exclusion or suspend the imposed penalty.

6 TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)

- 6.1 The process of restriction is used to exclude a company/person from conducting future business with Transnet and other organs of state for a specified period. No Tender shall be awarded to a Tenderer whose name (or any of its members, directors, partners or trustees) appear on the Register of Tender Defaulters kept by National Treasury, or who have been placed on National Treasury's List of Restricted Suppliers. Transnet reserves the right to withdraw an award, or cancel a contract concluded with a Tenderer should it be established, at any time, that a tenderer has been restricted with National Treasury by another government institution.
- 6.2 All the stipulations on Transnet's restriction process as laid down in Transnet's Supply Chain Policy and Procurement Procedures Manual (CPM included) are included herein by way of reference. Below follows a condensed summary of this restriction procedure.
- 6.3 On completion of the restriction procedure, Transnet will submit the restricted entity's details (including the identity number of the individuals and registration number of the entity) to National Treasury for placement on National Treasury's Database of Restricted Suppliers for the specified period of exclusion. National Treasury will make the final decision on whether to restrict an entity from doing business with any organ of state for a period not exceeding 10 years and place the entity concerned on the Database of Restricted Suppliers published on its official website.

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- 6.4 The decision to restrict is based on one of the grounds for restriction. The standard of proof to commence the restriction process is whether a "*prima facie*" (i.e. on the face of it) case has been established.
- 6.5 Depending on the seriousness of the misconduct and the strategic importance of the Goods/Services, in addition to restricting a company/person from future business, Transnet may decide to terminate some or all existing contracts with the company/person as well.
- 6.6 A Service Provider or Contractor to Transnet may not subcontract any portion of the contract to a blacklisted company.
- 6.7 Grounds for blacklisting include: If any person/Enterprise which has submitted a Tender, concluded a contract, or, in the capacity of agent or subcontractor, has been associated with such Tender or contract:
- a) Has, in bad faith, withdrawn such Tender after the advertised closing date and time for the receipt of Tenders;
 - b) has, after being notified of the acceptance of his Tender, failed or refused to sign a contract when called upon to do so in terms of any condition forming part of the Tender documents;
 - c) has carried out any contract resulting from such Tender in an unsatisfactory manner or has breached any condition of the contract;
 - d) has offered, promised or given a bribe in relation to the obtaining or execution of the contract;
 - e) has acted in a fraudulent or improper manner or in bad faith towards Transnet or any Government Department or towards any public body, Enterprise or person;
 - f) has made any incorrect statement in a certificate or other communication with regard to the Local Content of his Goods or his B-BBEE status and is unable to prove to the satisfaction of Transnet that:
 - (i) he made the statement in good faith honestly believing it to be correct; and
 - (ii) before making such statement he took all reasonable steps to satisfy himself of its correctness;
 - g) caused Transnet damage, or to incur costs in order to meet the contractor's requirements and which could not be recovered from the contractor;

h) has litigated against Transnet in bad faith.

- 6.8 Grounds for blacklisting include a company/person recorded as being a company or person prohibited from doing business with the public sector on National Treasury's database of Restricted Service Providers or Register of Tender Defaulters.
- 6.9 Companies associated with the person/s guilty of misconduct (i.e. entities owned, controlled or managed by such persons), any companies subsequently formed by the person(s) guilty of the misconduct and/or an existing company where such person(s) acquires a controlling stake may be considered for blacklisting. The decision to extend the blacklist to associated companies will be at the sole discretion of Transnet.

7 PREVIOUS TRANSGRESSIONS

- 7.1 The Tenderer/Service Provider/Contractor hereby declares that no previous transgressions resulting in a serious breach of any law, including but not limited to, corruption, fraud, theft, extortion and contraventions of the Competition Act 89 of 1998, which occurred in the last 5 (five) years with any other public sector undertaking, government department or private sector company that could justify its exclusion from its registration on the Tenderer's/Service Provider's/Contractor's database or any tendering process.
- 7.2 If it is found to be that the Tenderer/Service Provider/Contractor made an incorrect statement on this subject, the Tenderer/Service Provider/Contractor can be rejected from the registration process or removed from the Tenderer/Service Provider/Contractor database, if already registered, for such reason (refer to the Breach of Law Returnable Form contained in the document.)

8 SANCTIONS FOR VIOLATIONS

- 8.1 Transnet shall also take all or any one of the following actions, wherever required to:
- a) Immediately exclude the Tenderer/Service Provider/Contractor from the tendering process or call off the pre-contract negotiations without giving any compensation the Tenderer/Service Provider/Contractor. However, the proceedings with the other Tenderer/Service Provider/Contractor may continue;
 - b) Immediately cancel the contract, if already awarded or signed, without giving any compensation to the Tenderer/Service Provider/Contractor;

- c) Recover all sums already paid by Transnet;
- d) Encash the advance bank guarantee and performance bond or warranty bond, if furnished by the Tenderer/Service Provider/Contractor, in order to recover the payments, already made by Transnet, along with interest;
- e) Cancel all or any other contracts with the Tenderer/Service Provider/Contractor; and
- f) Exclude the Tenderer/ Service Provider/Contractor from entering into any Tender with Transnet in future.

9 CONFLICTS OF INTEREST

9.1 A conflict of interest includes, inter alia, a situation in which:

- a) A Transnet employee has a personal financial interest in a tendering / supplying entity; and
- b) A Transnet employee has private interests or personal considerations or has an affiliation or a relationship which affects, or may affect, or may be perceived to affect his / her judgment in action in the best interest of Transnet, or could affect the employee's motivations for acting in a particular manner, or which could result in, or be perceived as favouritism or nepotism.

9.2 A Transnet employee uses his / her position, or privileges or information obtained while acting in the capacity as an employee for:

- a) Private gain or advancement; or
- b) The expectation of private gain, or advancement, or any other advantage accruing to the employee must be declared in a prescribed form.

Thus, conflicts of interest of any Tender committee member or any person involved in the sourcing process must be declared in a prescribed form.

9.3 If a Tenderer/Service Provider/Contractor has or becomes aware of a conflict of interest i.e. a family, business and / or social relationship between its owner(s)/ member(s)/director(s)/partner(s)/shareholder(s) and a Transnet employee/ member of Transnet's Board of Directors in respect of a Tender which will be considered for the Tender process, the Tenderer/Service Provider/ Contractor:

- a) must disclose the interest and its general nature, in the Request for Proposal ("RFX") declaration form; or
- b) must notify Transnet immediately in writing once the circumstances has arisen.

9.4 The Tenderer/Service Provider/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any committee member or any person involved in the sourcing process, where this is done, Transnet shall be entitled forthwith to rescind the contract and all other contracts with the Tenderer/Service Provider/Contractor.

10 DISPUTE RESOLUTION

10.1 Transnet recognises that trust and good faith are pivotal to its relationship with its Tenderer / Service Provider / Contractor. When a dispute arises between Transnet and its Tenderer / Service Provider / Contractor, the parties should use their best endeavours to resolve the dispute in an amicable manner, whenever possible. Litigation in bad faith negates the principles of trust and good faith on which commercial relationships are based. Accordingly, following a blacklisting process as mentioned in paragraph 6 above, Transnet will not do business with a company that litigates against it in bad faith or is involved in any action that reflects bad faith on its part. Litigation in bad faith includes, but is not limited to the following instances:

- a) **Vexatious proceedings:** these are frivolous proceedings which have been instituted without proper grounds;
- b) **Perjury:** where a Tenderer / Service Provider / Contractor make a false statement either in giving evidence or on an affidavit;
- c) **Scurrilous allegations:** where a Tenderer / Service Provider / Contractor makes allegations regarding a senior Transnet employee which are without proper foundation, scandalous, abusive or defamatory; and
- d) **Abuse of court process:** when a Tenderer / Service Provider / Contractor abuses the court process in order to gain a competitive advantage during a Tender process.

11 GENERAL

11.1 This Integrity Pact is governed by and interpreted in accordance with the laws of the Republic of South Africa.

11.2 The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the law relating to any civil or criminal proceedings.

11.3 The validity of this Integrity Pact shall cover all the tendering processes and will be valid for an indefinite period unless cancelled by either Party.

11.4 Should one or several provisions of this Integrity Pact turn out to be invalid the remainder of this Integrity Pact remains valid.

11.5 Should a Tenderer/Service Provider/Contractor be confronted with dishonest, fraudulent or corruptive behaviour of one or more Transnet employees, Transnet expects its Tenderer/Service Provider/Contractor to report this behaviour directly to a senior Transnet official/employee or alternatively by using Transnet's "Tip-

Off Anonymous" hotline number 0800 003 056, whereby your confidentiality is guaranteed.

The Parties hereby declare that each of them has read and understood the clauses of this Integrity Pact and shall abide by it. To the best of the Parties' knowledge and belief, the information provided in this Integrity Pact is true and correct.

I duly authorised by the tendering entity, hereby certify that the tendering entity are **fully acquainted** with the contents of the Integrity Pact and further **agree to abide by it** in full.

Signature

Date

T2.2-21 : Supplier Code of Conduct

Transnet SOC Limited aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any supplier dealing with Transnet must understand and support. These are:

- The Transnet Procurement Policy – A guide for Tenderers.
- Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- The Public Finance Management Act (PFMA);
- The Broad Based Black Economic Empowerment Act (BBBEE)
- The Prevention and Combating of Corrupt Activities Act (PRECCA); and
- The Construction Industry Development Board Act (CIDB Act).

This code of conduct has been included in this contract to formally appraise Transnet Suppliers of Transnet's expectations regarding behaviour and conduct of its Suppliers.

Prohibition of Bribes, Kickbacks, Unlawful Payments, and Other Corrupt Practices

Transnet is in the process of transforming itself into a self-sustaining State Owned Enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that will enable this transformation.

1. Transnet SOC Limited will not participate in corrupt practices. Therefore, it expects its suppliers to act in a similar manner.

- Transnet and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with, and payments to, our suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, from suppliers.
- Employees may not receive anything that is calculated to:
 - Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;

- Win or retain business or to influence any act or decision of any person involved in sourcing decisions; or
- Gain an improper advantage.

- There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our “Tip-offs Anonymous” Hot line to report these acts. (0800 003 056).

2. *Transnet SOC Limited is firmly committed to the ideas of free and competitive enterprise.*

- Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust practices.
- Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).

3. *Transnet’s relationship with suppliers requires us to clearly define requirements, to exchange information and share mutual benefits.*

- Generally, suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
 - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc);
 - Collusion;
 - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.);
 - Corrupt activities listed above; and
 - Harassment, intimidation or other aggressive actions towards Transnet employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

Conflicts of Interest

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet SOC Limited.

- Doing business with family members.
- Having a financial interest in another company in our industry

Where possible, contracts will be negotiated to include the above in the terms of such contracts. To the extent such terms are not included in contractual obligations and any of the above code is breached, then Transnet reserves its right to review doing business with these suppliers.

I, _____ of _____
(insert name of Director or as per Authority Resolution from Board of Directors) *(insert name of Company)*

hereby acknowledge having read, understood and agree to the terms and conditions set out in the "Transnet Supplier Code of Conduct."

Signed this on day _____ at

Signature

T2.2-22 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

1. PREAMBLE AND INTRODUCTION

- 1.1. The rights and obligation of the Parties in terms of the Protection of Personal Information Act, 4 of 2013 ("POPIA") are included as forming part of the terms and conditions of this contract.

2. PROTECTION OF PERSONAL INFORMATION

- 2.1. The following terms shall bear the same meaning as contemplated in Section 1 of the Protection of Person information act, No. of 2013 "(POPIA)":
consent; data subject; electronic communication; information officer; operator; person; personal information; processing; record; Regulator; responsible party; special information; as well as any terms derived from these terms.
- 2.2. The Operator will process all information by the Transnet in terms of the requirements contemplated in Section 4(1) of the POPIA:
Accountability; Processing limitation; Purpose specification; Further processing limitation; Information quality; Openness; Security safeguards and Data subject participation.
- 2.3. The Parties acknowledge and agree that, in relation to personal information of Transnet and the information of a third party that will be processed pursuant to this Agreement , the Operator is (.....) hereinafter Operator and the Data subject is "Transnet". Operator will process personal information only with the knowledge and authorisation of Transnet and will treat personal information and the information of a third party which comes to its knowledge as confidential and will not disclose it, unless so required by law or subject to the exceptions contained in the POPIA.
- 2.4. Transnet reserves all the rights afforded to it by the POPIA in the processing of any of its information as contained in this Agreement and the Operator is required to comply with all prescripts as detailed in the POPIA relating to all information concerning Transnet.
- 2.5. In terms of this Agreement, the Operator acknowledges that it will obtain and have access to personal information of Transnet and the information of a third party and agrees that it shall only process the information disclosed by Transnet in terms of this Agreement and only for the purposes as detailed in this Agreement and in accordance with any applicable law.
- 2.6. Should there be a need for the Operator to process the personal information and the information of a third party in a way that is not agreed to in this Agreement, the Operator must request consent

from Transnet to the processing of its personal information or and the information of a third party in a manner other than that it was collected for, which consent cannot be unreasonably withheld.

- 2.7. Furthermore, the Operator will not otherwise modify, amend or alter any personal information and the information of a third party submitted by Transnet or disclose or permit the disclosure of any personal information and the information of a third party to any third party without prior written consent from Transnet.
- 2.8. The Operator shall, at all times, ensure compliance with any applicable laws put in place and maintain sufficient measures, policies and systems to manage and secure against all forms of risks to any information that may be shared or accessed pursuant to the services offered to Transnet in terms of this Agreement (physically, through a computer or any other form of electronic communication).
- 2.9. The Operator shall notify Transnet in writing of any unauthorised access to personal information and the information of a third party , cybercrimes or suspected cybercrimes, in its knowledge and report such crimes or suspected crimes to the relevant authorities in accordance with applicable laws, after becoming aware of such crimes or suspected crime. The Operator must inform Transnet of the breach as soon as it has occurred to allow Transnet to take all necessary remedial steps to mitigate the extent of the loss or compromise of personal information and the information of a third party and to restore the integrity of the affected personal information as quickly as is possible.
- 2.10. Transnet may, in writing, request the Operator to confirm and/or make available any personal information and the information of a third party in its possession in relation to Transnet and if such personal information has been accessed by third parties and the identity thereof in terms of the POPIA.
- 2.11. Transnet may further request that the Operator correct, delete, destroy, withdraw consent or object to the processing of any personal information and the information of a third party relating to the Transnet or a third party in the Operator's possession in terms of the provision of the POPIA and utilizing Form 2 of the POPIA Regulations .
- 2.12. In signing this addendum that is in terms of the POPIA, the Operator hereby agrees that it has adequate measures in place to provide protection of the personal information and the information of a third party given to it by Transnet in line with the 8 conditions of the POPIA and that it will provide to Transnet satisfactory evidence of these measures whenever called upon to do so by Transnet.

The Operator is required to provide confirmation that all measures in terms of the POPIA are in place when processing personal information and the information of a third party received from Transnet:

YES		NO	
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2.13. Further, the Operator acknowledges that it will be held liable by Transnet should it fail to process personal information in line with the requirements of the POPIA. The Operator will be subject to any civil or criminal action, administrative fines or other penalty or loss that may arise as a result of the processing of any personal information that Transnet submitted to it.

2.14. Should a Tenderer have any complaints or objections to processing of its personal information, by Transnet, the Tenderer can submit a complaint to the Information Regulator on <https://www.justice.gov.za/infoereg/>, click on contact us, click on complaints.IR@justice.gov.za

3. SOLE AGREEMENT

3.1. The Agreement, constitute the sole agreement between the parties relating to the subject matter referred to in paragraph 1.1 of this and no amendment/variation/change shall be of any force and effect unless reduced to writing and signed by or on behalf of both parties.

Signed at _____ on this _____ day of _____ 2021

Name: _____

Title: _____

Signature: _____

Name of Company: _____

(Operator)

Authorised signatory for and on behalf of _____ who warrants that he/she is duly authorised to sign this Agreement.

AS WITNESSES:

1. Name: _____ Signature: _____

2. Name: _____ Signature: _____

T2.2-23: Insurance provided by the *Contractor*

Clause 84.1 in NEC3 Engineering & Construction Contract (June 2005)(amended June 2006 and April 2013) requires that the *Contractor* provides the insurance stated in the insurance table except any insurance which the *Employer* is to provide as stated in the Contract Data.

Please provide the following details for insurance which the *Contractor* is still to provide. Notwithstanding this information all costs related to insurance are deemed included in the tenderer's rates and prices.

Insurance against (See clause 84.2 of the ECC)	Name of Insurance Company	Cover	Premium
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract			
Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R5 000 000.			
Insurance in respect of loss of or damage to own property and equipment.			
Marine Craft Hull insurance in respect of all marine craft or vessels utilised in performance of the Works for a sum sufficient to provide for their replacement			
Protection and Indemnity Insurance in respect of all marine craft or vessels utilised in performance of the Works extended for Specialist Operations with a minimum indemnity limit of R 20,000,000			
(Other)			

T2.2-24: Three (3) years audited financial statements

Attached to this schedule is the last three (3) years audited financial statements of the single tenderer/members of the Joint Venture.

NAME OF COMPANY/IES and INDEX OF ATTACHMENTS:

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T2.2-25 TRANSNET VENDOR REGISTRATION FORM

Transnet Vendor Management has received a request to load / change your company details onto the Transnet vendor master database. Please return the completed Supplier Declaration Form (SDF) together with the required supporting documents as per Appendix A to the Transnet Official who is intending to procure your company's services / products, to enable us to process this request. Please only submit the documentation relevant to your request.

Please Note: all organisations, institutions and individuals who wish to provide goods and/or services to organs of the State must be registered on the National Treasury's Central Supplier Database (CSD). This needs to be done via their portal at <https://secure.csd.gov.za/> **before applying to Transnet.**

General Terms and Conditions:

Please Note: Failure to submit the relevant documentation will delay the vendor creation / change process.

Where applicable, the respective Transnet Operating Division processing your application may request further or additional information from your company.

The Service Provider warrants that the details of its bank account ("the nominated account") provided herein, are correct and acknowledges that payments due to the Supplier will be made into the nominated account. If details of the nominated account should change, the Service Provider must notify Transnet in writing of such change, failing which any payments made by Transnet into the nominated account will constitute a full discharge of the indebtedness of Transnet to the Supplier in respect of the payment so made. Transnet will incur no liability for any payments made to the incorrect account or any costs associated therewith. In such an event, the Service Provider indemnifies and holds Transnet harmless in respect of any payments made to an incorrect bank account and will, on demand, pay Transnet any costs associated herewith.

Transnet expects its suppliers to timeously renew their Tax Clearance and B-BBEE certificates (Large Enterprises and QSEs less than 51% black owned) as well as sworn affidavits in the case of EMEs and QSEs with more than 51% black ownership as per Appendices C and D.

In addition, please take note of the following very important information:

1. If your annual turnover is R10 million or less, then in terms of the DTI Generic Codes of Good Practice, you are classified as an Exempted Micro Enterprise (EME). If your company is classified as an EME, please include in your submission a sworn affidavit confirming your company's most recent annual turnover is less than R10 million and percentage of black ownership and black female ownership in the company (Appendix C) OR B-BBEE certificate issued by a verification agency accredited by SANAS in terms of the EME scorecard should you feel you will be able to attain a better B-BBEE score. It is only in this context that an EME may submit a B-BBEE verification certificate. These EME sworn affidavits must be accepted by the . Government introduced this mechanism specifically to reduce the cost of doing business and regulatory burden for these entities and the template for the sworn affidavit is available at no cost on the website www.thedti.gov.za or EME certificates at CIPC from www.cipic.co.za.

The B-BBEE Commission said "that only time an EME can be verified by a SANAS accredited verification professional is when it wishes to maximise its B-BBEE points and move to a higher B-BBEE recognition level, and that must be done use the QSE Scorecard".

2. If your annual turnover is between R10 million and R50 million, then in terms of the DTI codes, you are classified as a Qualifying Small Enterprise (QSE). A QSE which is at least 51% black owned, is required to submit a sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership (Appendix D). QSE that does not qualify for 51% of black ownership, are required to submit a B-BBEE verification certificate issued by a verification agency accredited by SANAS their QSEs are required to submit a B-BBEE verification certificate issued by a verification agency accredited by SANAS.

Please Note: B-BBEE certificate and detailed scorecard should be obtained from an accredited rating agency (e.g. SANAS Member).

3. If your annual turnover exceeds R50 million, then in terms of the DTI codes, you are classified as a Large Enterprise. Large Enterprises are required to submit a B-BBEE level verification certificate issued by a verification agency accredited by SANAS.

Please Note: B-BBEE certificate and detailed scorecard should be obtained from an accredited rating agency (e.g. SANAS Member).

4. The supplier to furnish proof to the procurement department as required in the Fourth Schedule of the Income Tax Act. 58 of 1962 whether a supplier of service is to be classified as an "employee", "personal service provider" or "labour broker". Failure to do so will result in the supplier being subject to employee's tax.

5. No payments can be made to a vendor until the vendor has been registered / updated, and no vendor can be registered / updated until the vendor application form, together with its supporting documentation, has been received and processed. No payments can be made to a vendor until the vendor has met / comply with the procurement requirements.

6. It is in line with PPPFA Regulations, only valid B-BBEE status level certificate issued by an unauthorised body or person OR a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice, OR any other requirement prescribed in terms of the Broad- Based Black Economic Empowerment Act.

7. The B-BBEE Commission advises entities and organs of state to reject B-BBEE certificates that have been issued by verification agencies or professionals who are not accredited by South African National Accreditation Systems ("SANAS) as such B-BBEE certificates are invalid for lack of authority and mandate to issue them. A list of SANAS Accredited agencies is available on the SANAS website at www.sanas.co.za.

8. Presenting banking details. Please note: Banks have decided to enable the customers and provide the ability for customers to generate Account Confirmation/Bank Account letters via their online platform; this is a digital approach to the authentication of banking details.

TRANSNET VENDOR REGISTRATION FORM

TRANSNET VENDOR REGISTRATION FORM

Important Notice: all organisations, institutions and individuals who wish to provide goods and/or services to organs of the State must be registered on the National Treasury Central Supplier Database (CSD). This needs to be done via their portal at <https://secure.csd.gov.za/> **before applying to Transnet.**

CSD Number (MAAA xxxxxxxx):

Company Trading Name						
Company Registered Name						
Company Registration No Or ID No If a Sole Proprietor						
Company Income Tax Number						
Form of Entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
	Non-profit (NPO's or NPC)	Personal Liability Co	State Owned Co	National Govt.	Provincial Govt.	Local Govt.
	Educational Institution	Specialised Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office

Did your company previously operate under another name?					Yes	No
If YES state the previous details below:						
Trading Name						
Registered Name						
Company Registration No Or ID No If a Sole Proprietor						
Form of Entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
	Non-profit (NPO's or NPC)	Personal Liability Co	State Owned Co	National Govt.	Provincial Govt.	Local Govt.
	Educational Institution	Specialised Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office

Your Current Company's VAT Registration Status	
VAT Registration Number	
If Exempted from VAT registration , state reason and submit proof from SARS in confirming the exemption status	

If your business entity is not VAT Registered, please submit a current original sworn affidavit (see example in Appendix I). Your Non VAT Registration must be confirmed annually.

Company Banking Details		Bank Name	
Universal Branch Code		Bank Account Number	

Company Physical Address		Code	
Company Postal Address		Code	
Company Telephone number			
Company Fax Number			
Company E-Mail Address			
Company Website Address			

Company Contact Person Name	
Designation	
Telephone	
Email	

Is your company a Labour Broker?	Yes		No	
Main Product / Service Supplied e.g. Stationery / Consulting / Labour etc.				
How many personnel does the business employ?	Full Time		Part Time	
Please Note: Should your business employ more than 2 full time employees who are not connected persons as defined in the Income Tax Act, please submit a sworn affidavit, as per Appendix II.				

Most recent Financial Year's Annual Turnover	<R10 Million EME		>R10Million <R50Million QSE		>R50 Million Large Enterprise	
----------------------------------------------	----------------------------	--	------------------------------------------	--	-----------------------------------------	--

Does your company have a valid proof of B-BBEE status?							Yes		No			
Please indicate your Broad Based BEE status (Level 1 to 9)				1	2	3	4	5	6	7	8	9
Majority Race of Ownership												
% Black Ownership		% Black Women Ownership		% Black Disabled person(s) Ownership			% Black Youth Ownership					
% Black Unemployed		% Black People Living in Rural Areas		% Black Military Veterans								
Please Note: Please provide proof of B-BBEE status as per Appendix C and D:												

- Large Enterprise and QSEs with less than 51% black ownership need to obtain a B-BBEE certificate and detailed scorecard from an accredited rating agency;
- EMEs and QSEs with at least 51% black ownership may provide an affidavit using the templates provided in Appendix C and D respectively;
- Black Disabled person(s) ownership will only be accepted if accompanied with a certified letter signed by a physician on the physician's letterhead confirming the disability;
- A certified South African identification document will be required for all Black Youth Ownership.

Supplier Development Information Required	
EMPOWERING SUPPLIER An Empowering Supplier is a B-BBEE compliant Entity which complies with at least three criteria if it is a large Entity, or one criterion if it is a Qualifying Small Enterprise ("QSE"), as detailed in Statement 400 of the New Codes. In terms of the requirements of an Empowering Supplier, numerous companies found it challenging to meet the target of 25% transformation of raw materials or beneficiation including local manufacturing, particularly so, if these companies imported goods or products from offshore. The matter was further compounded by the requirement for 25% of Cost of Sales, excluding labour cost and depreciation, to be procured from local producers or suppliers.	YES <input type="radio"/> NO <input type="radio"/>
FIRST TIME SUPPLIER A supplier that we haven't as yet Traded within Transnet and will be registered via our database for the 1 st time.	YES <input type="radio"/> NO <input type="radio"/>
SUPPLIER DEVELOPMENT PLAN Supplier Development Plan is a plan that when we as Transnet award a supplier a long term contract depending on the complexity of the Transaction. We will negotiate supplier development obligations that they must meet throughout the contract duration. e.g. we might request that they (create jobs or do skills development or encourage procurement from designated groups. (BWO, BYO & BDO etc.).	YES <input type="radio"/> NO <input type="radio"/>
DEVELOPMENT PLAN DOCUMENT Agreed plan that will be crafted with the supplier in regards to their development (It could be for ED OR SD in terms of their developmental needs they may require with the company.	YES <input type="radio"/> NO <input type="radio"/> *If Yes- Attach supporting documents
ENTERPRISE DEVELOPMENT BENEFICIARY	YES <input type="radio"/> NO <input type="radio"/>

A supplier that is not as yet in our value chain that we are assisting in their developmental area.	
SUPPLIER DEVELOPMENT BENEFICIARY A supplier that we are already doing business with or transacting with and we are also assisting them assisting them in their developmental area e.g. (They might require training or financial assistance etc.)	YES <input type="radio"/> NO <input type="radio"/>
GRADUATION FROM ED TO SD BENEFICIARY When a supplier that we assisted with as an ED beneficiary then gets awarded a business and we start Transacting with.	YES <input type="radio"/> NO <input type="radio"/>
ENTERPRISE DEVELOPMENT RECIPIENT A supplier that isn't in our value chain as yet but we have assisted them with an ED intervention	YES <input type="radio"/> NO <input type="radio"/>

By signing below, I hereby verify that I am duly authorised to sign for and on behalf of firm / organisation and that all information contained herein and attached herewith are true and correct			
Name and Surname		Designation	
Signature		Date	

APPENDIX B

Affidavit or Solemn Declaration as to VAT registration status

Affidavit or Solemn Declaration

I, _____ solemnly swear/declare
that _____ is not a registered VAT
vendor and is not required to register as a VAT vendor because the combined value of taxable supplies
made by the provider in any 12 month period has not exceeded or is not expected to exceed R1million
threshold, as required in terms of the Value Added Tax Act.

Signature: _____

Designation: _____

Date: _____

Commissioner of Oaths

Thus signed and sworn to before me at _____ on this the _____
day of _____ 20_____,

the Deponent having knowledge that he/she knows and understands the contents of this Affidavit,
and that he/she has no objection to taking the prescribed oath, which he/she regards binding on
his/her conscience and that the allegations herein contained are all true and correct.

Commissioner of Oaths

APPENDIX C

SWORN AFFIDAVIT – B-BBEE QUALIFYING SMALL ENTERPRISE – GENERAL

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner (**Select one**) of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	
Trading Name (If Applicable):	
Registration Number:	
Vat Number (If applicable)	
Enterprise Physical Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	
Nature of Business:	

Definition of "Black People"	<p>As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians –</p> <ul style="list-style-type: none"> (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- <ul style="list-style-type: none"> i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
Definition of "Black Designated Groups"	<p>"Black Designated Groups means:</p> <ul style="list-style-type: none"> 1. unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; 2. Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"

3. I hereby declare under Oath that:

- The Enterprise is _____% Black Owned using the flow-through principle as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,

- Black Designated Group Owned % Breakdown as per the definition stated above:
 - Black Youth % = _____%
 - Black Disabled % = _____%
 - Black Unemployed % = _____%
 - Black People living in Rural areas % = _____%
 - Black Military Veterans % = _____%
- Based on the Audited Financial Statements/ Financial Statements and other information available on the latest financial year-end of _(DD/MM/YYYY), the annual Total Revenue was between R10,000,000.00 (Ten Million Rands) and R50,000,000.00 (Fifty Million Rands),
- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

100% Black Owned	Level One (135% B-BBEE procurement recognition level)	
At Least 51% black owned	Level Two (125% B-BBEE procurement recognition level)	

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

Commissioner of OathsSignature & stampDate:

APPENDIX D

SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE – GENERAL

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner (**Select one**) of the following enterprise and am duly authorized to act on its behalf:

Enterprise Name:	
Trading Name (If Applicable):	
Registration Number:	
Vat Number (If applicable)	
Enterprise Physical Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	
Nature of Business:	
Definition of "Black People"	<p>As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians –</p> <ul style="list-style-type: none"> (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- <ul style="list-style-type: none"> i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"

Definition of "Black Designated Groups"	<p>"Black Designated Groups means:</p> <ul style="list-style-type: none"> (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"
------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3. I hereby declare under Oath that:

- The Enterprise is _____% Black Owned using the flow-through principle as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- Black Designated Group Owned % Breakdown as per the definition stated above:
 - Black Youth % = _____%
 - Black Disabled % = _____%
 - Black Unemployed % = _____%
 - Black People living in Rural areas % = _____%
 - Black Military Veterans % = _____%

- Based on the Audited Financial Statements/Financial Statements and other information available on the latest financial year-end of __ (DD/MM/YYYY), the annual Total Revenue was R10,000,000.00 (Ten Million Rands) or less
- Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**

100% Black Owned	Level One (135% B-BBEE procurement recognition level)	
At least 51% Black Owned	Level Two (125% B-BBEE procurement recognition level)	
Less than 51% Black Owned	Level Four (100% B-BBEE procurement recognition level)	

- I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.
- The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

Commissioner of Oaths

Signature & stamp

Date:

VENDOR REGISTRATION DOCUMENTS CHECKLIST

Please note that you will have to provide the first two documents on the list (highlighted in red) and the rest will be provided by the supplier:

	Yes	No
1. Complete the "Supplier Declaration Form" (SDF) (commissioned). See attachment.		
2. Complete the "Supplier Code of Conduct" (SCC). See attachment.		
3. Copy of cancelled cheque OR letter from the bank verifying banking details (with bank stamp not older than 3 Months & sign by Bank Teller).		
4. Certified (Not Older than 3 Months) copy of Identity document of Shareholders/Directors/Members (where applicable).		
5. Certified copy of certificate of incorporation, CM29 / CM9 (name change).		
6. Certified copy of share Certificates of Shareholders, CK1 / CK2 (if CC).		
7. A letter with the company's letterhead confirming both Physical and Postal address.		
8. Original or certified copy of SARS Tax Clearance certificate and Vat registration certificate.		
9. BBBEE certificate and detailed scorecard from a SANAS Accredited Verification Agency and/or Sworn Certified Affidavit.		
10. Central Supplier Database (CSD) Summary Registration Report.		

C1.1a: Form of Offer & Acceptance

Offer

Tenders are to only complete this section if they intend to bid for the Port of East London scope.

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

GEOTECHNICAL INVESTIGATION (MARINE AND LAND), VARIOUS LOCATIONS/SITES (PORT OF EAST LONDON AND PORT OF PORT ELIZABETH).

The tenderer, identified in the Offer signature block, has

	examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

The offered total of the Prices exclusive of VAT is	R
Value Added Tax @ 15% is	R
The offered total of the Prices inclusive of VAT is	R
(in words)	

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Acceptance

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the tenderer's Offer. In consideration thereof, the *Employer* shall pay the *Contractor* the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the *Employer* and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any).

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

**for the
Employer**

Transnet SOC Ltd

(Insert name and address of organisation)

Name &
signature of
witness

Date

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1		
2		
3		
4		

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	For the Employer
Signature	_____	_____
Name	_____	_____
Capacity	_____	_____
On behalf of	<i>(Insert name and address of organisation)</i>	Transnet SOC Ltd
Name & signature of witness	_____	_____
Date	_____	_____

C1.1b: Form of Offer & Acceptance

Offer

Tenders are to only complete this section if they intend to bid for the Port of Port Elizabeth scope.

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

GEOTECHNICAL INVESTIGATION (MARINE AND LAND), VARIOUS LOCATIONS/SITES (PORT OF EAST LONDON AND PORT OF PORT ELIZABETH).

The tenderer, identified in the Offer signature block, has

	examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

The offered total of the Prices exclusive of VAT is	R
Value Added Tax @ 15% is	R
The offered total of the Prices inclusive of VAT is	R
(in words)	

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Acceptance

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the tenderer's Offer. In consideration thereof, the *Employer* shall pay the *Contractor* the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the *Employer* and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any).

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

**for the
Employer**

Transnet SOC Ltd

(Insert name and address of organisation)

Name &
signature of
witness

Date

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1		
2		
3		
4		

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	For the Employer
Signature	_____	_____
Name	_____	_____
Capacity	_____	_____
On behalf of	<i>(Insert name and address of organisation)</i>	Transnet SOC Ltd
Name & signature of witness	_____	_____
Date	_____	_____

C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X2 Changes in the law
		X7: Delay damages
		X16: Retention
		X18: Limitation of liability
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)	
10.1	The <i>Employer</i> is:	Transnet SOC Ltd (Registration No. 1990/000900/30)
	Address	Registered address: Transnet Corporate Centre 138 Eloff Street Braamfontein Johannesburg 2000
	Having elected its Contractual Address for the purposes of this contract as:	Transnet National Ports Authority <i>Project Delivery Unit (PDU)</i> <i>2nd Floor, Mendi Building</i> <i>Transnet National Ports Authority</i>

		<i>Neptune Road, off Klub Road Port of Ngqura</i>
10.1	The <i>Project Manager</i> is: (Name)	Zukiswa Duze Port of East London Themba Ntanzu Port of Port Elizabeth
	Address	<i>2nd Floor, Mendi Building Transnet National Ports Authority Neptune Road, off Klub Road Port of Ngqura</i>
	Tel	043 700 2071 041 507 8653
	e-mail	Zukiswa.Duze@transnet.net Themba.Ntanzu@transnet.net
10.1	The <i>Supervisor</i> is: (Name)	Stephannis Denyssen Port of East London Jacques Viljoen Port of Port Elizabeth
	Address	<i>2nd Floor, Mendi Building Transnet National Ports Authority Neptune Road, off Klub Road Port of Ngqura</i>
	Tel No.	011 308 2075 011 308 4628
	e-mail	Stephannis.Denyssen@transnet.net Jacques.Viljoen@transnet.net
11.2(13)	The <i>works</i> are	GEOTECHNICAL INVESTIGATION (MARINE AND LAND), VARIOUS LOCATIONS/SITES (PORT OF EAST LONDON AND PORT OF PORT ELIZABETH).
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The <i>boundaries of the site</i> are	As stated in Part C4.1."Description of the Site and it surroundings"
11.2(16)	The Site Information is in	Part C4
11.2(19)	The Works Information is in	Part C3
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.

13.1	The <i>language of this contract</i> is	English						
13.3	The <i>period for reply</i> is	2 weeks						
2	The <i>Contractor's</i> main responsibilities	No additional data is required for this section of the <i>conditions of contract</i>.						
3	Time							
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	31 August 2022 Port of East London 30 September 2022 Port of Port Elizabeth						
30.1	The <i>access dates</i> are	<table><tr><th>Part of the Site</th><th>Date</th></tr><tr><td>1 Port of East London</td><td>22 March 2022</td></tr><tr><td>2 Port of Port Elizabeth</td><td>22 March 2022</td></tr></table>	Part of the Site	Date	1 Port of East London	22 March 2022	2 Port of Port Elizabeth	22 March 2022
Part of the Site	Date							
1 Port of East London	22 March 2022							
2 Port of Port Elizabeth	22 March 2022							
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.						
31.2	The <i>starting date</i> is	22 March 2022						
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	2 weeks.						
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.							
4	Testing and Defects							
42.2	The <i>defects date</i> is	52 (fifty two) weeks after Completion of the whole of the <i>works</i>.						
43.2	The <i>defect correction period</i> is	2 weeks						
5	Payment							
50.1	The <i>assessment interval</i> is monthly on the	25th (twenty fifth) day of each successive month.						
51.1	The <i>currency of this contract</i> is the	South African Rand.						
51.2	The period within which payments are made is	Payment will be effected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.						

51.4	The <i>interest rate</i> is	the prime lending rate of Standard Bank of South Africa.
------	-----------------------------	-----------------------------------------------------------------

6 Compensation events

60.1(13)	The <i>weather measurements</i> to be recorded for each calendar month are,	the cumulative rainfall (mm)
		the number of days with rainfall more than 10 mm
		the number of days with minimum air temperature less than 0 degrees Celsius
		the number of days with snow lying at 08:00 hours South African Time
		and these measurements:
	The place where weather is to be recorded (on the Site) is:	The <i>Contractor's</i> Site establishment area
	The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:	Port of East London and Port of Port Elizabeth
	and which are available from:	South African Weather Service 012 367 6023 or info3@weathersa.co.za.

7	Title	No additional data is required for this section of the <i>conditions of contract</i>.
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8 Risks and insurance

80.1	These are additional <i>Employer's</i> risks	
84.1	The <i>Employer</i> provides these insurances from the Insurance Table	
	1 Insurance against:	Loss of or damage to the <i>works</i>, Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.
	Cover / indemnity:	to the extent as stated in the insurance policy for Contract Works / Public Liability

The deductibles are:		as stated in the insurance policy for Contract Works / Public Liability
2	Insurance against:	Loss of or damage to property (except the <i>works</i>, Plant and Materials & Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising out of or in connection with the performance of the Contract as stated in the insurance policy for Contract Works / Public Liability
	Cover / indemnity	Is to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are	as stated in the insurance policy for Contract Works / Public Liability
3	Insurance against:	Loss of or damage to Equipment (Temporary Works only) as stated in the insurance policy for contract Works and Public Liability
	Cover / indemnity	Is to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are:	As stated in the insurance policy for Contract Works / Public Liability
4	Insurance against:	Contract Works SASRIA insurance subject to the terms, exceptions and conditions of the SASRIA coupon
	Cover / indemnity	Cover / indemnity is to the extent provided by the SASRIA coupon
	The deductibles are	The deductibles are, in respect of each and every theft claim, 0,1% of the contract value subject to a minimum of R2,500 and a maximum of R25,000.
	Note:	The deductibles for the insurance as stated above are listed in the document titled "Certificate of Insurance: Transnet (SOC) Limited Principal Controlled Insurance."

84.1 The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is

The *Contractor* provides these additional Insurances

The *Contractor* must comply at a minimum with the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.

- 1 Where the contract requires that the design of any part of the *works* shall be provided by the *Contractor* the *Contractor* shall satisfy the *Employer* that professional indemnity insurance cover in connection therewith has been affected**
- 2 Where the contract involves manufacture, and/or fabrication of Plant & Materials, components or other goods to be incorporated into the *works* at premises other than the site, the *Contractor* shall satisfy the *Employer* that such plant & materials, components or other goods for incorporation in the *works* are adequately insured during manufacture and/or fabrication and transportation to the site.**
- 3 Should the *Employer* have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the *Contractor's* policies of insurance as well as those of any sub-contractor**
- 4 Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R10 000 000.**
- 5 Marine Craft Hull insurance in respect of all marine craft or vessels utilised in performance of the Works for a sum sufficient to provide for their replacement**

6 Protection and Indemnity Insurance in respect of all marine craft or vessels utilised in performance of the Works extended for Specialist Operations with a minimum indemnity limit of R 20,000,000

7 The insurance coverage referred to in 1, 2, 3, 4, 5 and 6 above shall be obtained from an insurer(s) in terms of an insurance policy approved by the *Employer*. The *Contractor* shall arrange with the insurer to submit to the *Project Manager* the original and the duplicate original of the policy or policies of insurance and the receipts for payment of current premiums, together with a certificate from the insurer or insurance broker concerned, confirming that the policy or policies provide the full coverage as required. The original policy will be returned to the *Contractor*.

84.2 The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract for any one event is

Whatever the *Contractor* requires in addition to the amount of insurance taken out by the *Employer* for the same risk.

84.2 The insurance against loss of or damage to the works, Plant and Materials as stated in the insurance policy for contract works and public liability selected from:

Principal Controlled Insurance policy for Contract OR Project Specific Insurance for the contract

9 Termination

There is no additional Contract Data required for this section of the *conditions of contract*.

10 Data for main Option clause

B	Priced contract with Bill of Quantities	No additional data is required for this Option.
60.6	The <i>method of measurement</i> is	The Bill of Quantities have been measured in accordance with SANS 1200 unless indicated otherwise.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the <i>Adjudicator</i>, the Chairman of the Association of Arbitrators will appoint an <i>Adjudicator</i>.
W1.2(3)	The <i>Adjudicator nominating body</i> is: If no <i>Adjudicator nominating body</i> is entered, it is:	The Chairman of the Association of Arbitrators (Southern Africa) the Association of Arbitrators (Southern Africa)
W1.4(2)	The <i>tribunal</i> is:	Arbitration
W1.4(5)	The <i>arbitration procedure</i> is	The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)
	The place where arbitration is to be held is	Port Elizabeth, South Africa
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	The Chairman of the Association of Arbitrators (Southern Africa)
12	Data for secondary Option clauses	
X2	Changes in the law	No additional data is required for this Option
X7	Delay damages	
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	R500 per day

X16	Retention	
X16.1	The retention free amount is	Nil
	The retention percentage is	10% on all payments certified.
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	Nil (this is the default position depending on a risk assessment, therefore this can go up to Total of the Prices)
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	The deductible of the relevant insurance policy
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to:	The cost of correcting the Defect
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	The Total of the Prices
X18.5	The <i>end of liability date</i> is	1 year after Completion of the whole of the works
Z	<i>Additional conditions of contract are:</i>	
Z5	Additional clauses relating to Joint Venture	
Z5.1		Insert the additional core clause 27.5
		27.5. In the instance that the <i>Contractor</i> is a joint venture, the <i>Contractor</i> shall provide the <i>Employer</i> with a certified copy of its signed joint venture agreement, and in the

instance that the joint venture is an 'Incorporated Joint Venture,' the Memorandum of Incorporation, within 4 (four) weeks of the Contract Date.

The Joint Venture agreement shall contain but not be limited to the following:

- **A brief description of the Contract and the Deliverables;**
- **The name, physical address, communications addresses and domicilium citandi et executandi of each of the constituents and of the Joint Venture;**
- **The constituent's interests;**
- **A schedule of the insurance policies, sureties, indemnities and guarantees which must be taken out by the Joint Venture and by the individual constituents;**
- **Details of an internal dispute resolution procedure;**
- **Written confirmation by all of the constituents:**
 - i. **of their joint and several liabilities to the *Employer* to Provide the Works;**
 - ii. **identification of the lead partner in the joint venture confirming the authority of the lead partner to bind the joint venture through the *Contractor's* representative;**
 - iii. **Identification of the roles and responsibilities of the constituents to provide the Works.**
- **Financial requirements for the Joint Venture:**
 - iv. **the working capital requirements for the Joint Venture and the extent to which and manner whereby this will be provided and/or**

		<p>guaranteed by the constituents from time to time;</p> <p>v. the names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture.</p>
Z5.2		<p>Insert additional core clause 27.6</p> <p>27.6. The <i>Contractor</i> shall not alter its composition or legal status of the Joint Venture without the prior approval of the <i>Employer</i>.</p>
Z6	Additional obligations in respect of Termination	
Z6.1		<p>The following will be included under core clause 91.1:</p> <p>In the second main bullet, after the word 'partnership' add 'joint venture whether incorporate or otherwise (including any constituent of the joint venture)' and</p> <p>Under the second main bullet, insert the following additional bullets after the last sub-bullet:</p> <ul style="list-style-type: none"> • commenced business rescue proceedings (R22) • repudiated this Contract (R23)
Z6.2	Termination Table	<p>The following will be included under core clause 90.2 Termination Table as follows:</p> <p>Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"</p>
Z6.3		<p>Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."</p>
Z7	Right Reserved by the <i>Employer</i> to Conduct Vetting through SSA	

Z7.1

The *Employer* reserves the right to conduct vetting through State Security Agency (SSA) for security clearances of any *Contractor* who has access to National Key Points for the following without limitations:

1. Confidential – this clearance is based on any information which may be used by malicious, opposing or hostile elements to harm the objectives and functions of an organ of state.
2. Secret – clearance is based on any information which may be used by malicious, opposing or hostile elements to disrupt the objectives and functions of an organ of state.
3. Top Secret – this clearance is based on information which may be used by malicious, opposing or hostile elements to neutralise the objectives and functions of an organ of state.

Z8 Additional Clause Relating to Collusion in the Construction Industry

Z8.1

The contract award is made without prejudice to any rights the *Employer* may have to take appropriate action later with regard to any declared tender rigging including blacklisting.

Z9 Protection of Personal Information Act

Z9.1

The *Employer* and the *Contractor* are required to process information obtained for the duration of the Agreement in a manner that is aligned to the Protection of Personal Information Act.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Contract - June 2005 (with amendments June 2006 and April 2013) and the relevant parts of its Guidance Notes (ECC3-GN) in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 Guidance Notes.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name):	
	Address	
	Tel No.	
	Fax No.	
11.2(8)	The <i>direct fee percentage</i> is	%
	The <i>subcontracted fee percentage</i> is	%
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's</i> key persons are:	
	1 Name:	
	Job:	
	Responsibilities:	
	Qualifications:	
	Experience:	
	2 Name:	
	Job	
	Responsibilities:	
	Qualifications:	
	Experience:	

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .		
11.2(14)	The following matters will be included in the Risk Register			
31.1	The programme identified in the Contract Data is			
B	Priced contract with bill of quantities			
11.2(21)	The <i>bill of quantities</i> is in			
11.2(31)	The tendered total of the Prices is	(in figures)		
		(in words), excluding VAT		
	Data for Schedules of Cost Components	<i>Note "SCC" means Schedule of Cost Components starting on page 60 of ECC, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC.</i>		

B	Priced contract with bill of quantities	Data for the Shorter Schedule of Cost Components		
41 in SSCC	The percentage for people overheads is:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by			
	The percentage for adjustment for Equipment in the published list is	% (state plus or minus)		
22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate

61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are	Category of employee		Hourly rate
62 in SSCC	The percentage for design overheads is	%		
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:			

PRICING DATA FOR A GEOTECHNICAL INVESTIGATION

PART C2: PRICING DATA (GEOTECHNICAL INVESTIGATION)

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Glossary

The definitions and units of measurement listed below apply to this document. The units of measurement described in the *Bill of Quantities* are metric.

Abbreviations	Definition
CD	Chart Datum
Days	Work days (Monday to Friday. 9 hours/day)
DCP	Dynamic Cone Penetrometer
DPSH	Dynamic Probe (Super Heavy)
ECC	Engineering and Construction Contract
EMP	Environmental Management Plan
h	Hours
m	Metre
Mod. AASHTO	Modified American Association of State Highway and Transportation Officials
MSL	Mean Sea Level
NEC3	New Engineering Contract
No.	Number
OHS	Occupational Health and Safety
OMC	Optimum Moisture Content
P&G	Preliminary and General
PVC	Polyvinyl Chloride
SPT	Standard Penetration Test
Sum	Lump sum
TFR	Transnet Freight Rail
TLB	Tractor-mounted Loader Backhoe
TNPA	Transnet National Ports Authority
UCS and E	Unconfined Compressive Strength and Modulus of Elasticity
VAT	Value-Added Tax
W/day	Work day
Weeks	5 working days/week

C2.1: PRICING INSTRUCTIONS

SCOPE A.1: REHABILITATION OF QUAY WALL 3

(PORT OF EAST LONDON - MARINE SECTION)

1 Conditions of *Contract*

1.1 How the *Contract* Prices work and assesses it for progress payment

Clause 11 in NEC3 Engineering and Construction *Contract*, June 2005 (ECC3) Option B states:

Identified and defined terms 11 (21) The *Bill of Quantities* is the *Bill of Quantities* as changed in accordance with this *Contract* to accommodate implemented compensation events and for accepted quotations for acceleration.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether Work is *Sub-Contracted* or not excluding the cost of preparing quotations for compensation events.

(28) The Price for Work Done to Date is the total of the quantity of the Work, which the *Contractor* has completed for each item in the *Bill of Quantities* multiplied by the rate and a proportion of each lump sum, which is the proportion of the Work covered by the item, which the *Contractor* has completed.

Completed Work is Work without Defects, which either would delay or be covered by immediately following Work.

(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the *Bill of Quantities*.

This confirms that Option B is a re-measurement *Contract* and the *Bill* comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2 Function of the *Bill of Quantities*

Clause 55.1 in Option B states, "Information in the *Bill of Quantities* is not *Work Information* or *Site Information*". This confirms that instructions to do Work or how it is to be done are not included in the *Bill*, but in the *Work Information*. This is further confirmed by Clause 20.1, which states, "The *Contractor* provides the Works in accordance with the *Work Information*". Hence, the *Contractor* does not provide the Works in accordance with the *Bill of Quantities*. The *Bill of Quantities* is only a pricing document.

1.3 Guidance before pricing and measuring

Employers preparing Tenders or *Contract* documents, and tendering *Contractors* are advised to consult the sections dealing with the *Bill of Quantities* in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *Bill of Quantities* or before entering rates and lump sums into the *Bill*.

Historically *Bill of Quantities* based *Contracts* in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of *Contract* and methods of measurement. This is particularly apparent in the approach to the Preliminary and General (P&G) *Bill*. On the other hand, because ECC3 caters for a number of disciplines in the same *Contract*, including electrical Works, a different approach not currently found in local methods of measurement to the P&G *Bill* items may have been used.

The NEC approach to the P&G *Bill* assumes use will be made of method related charges for equipment applied to providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing Work items typically included in other parts of the *Bill*.

2 Measurement and Payment

2.1 General assumptions

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

The Prices and rates stated for each item in the *Bill of Quantities* shall be treated as being fully inclusive of all Work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.

Where this *Contract* requires detailed drawings, designs or other information to be provided, and no rates or Prices are included in the *Bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the Tendered rates and Prices in the *Bill of Quantities*.

An item against which no Price is entered will be treated as covered by other Prices or rates in the *Bill of Quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.

The quantities contained in the *Bill of Quantities* may not be final and do not necessarily represent the actual amount of Work to be done. The quantities of Work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the *Bill of Quantities*.

The short descriptions of the items of payment given in the *Bill of Quantities* are only for the purposes of identifying the items. More detail regarding the extent of the Work entailed under each item is provided in the *Scope of Work*, Part C3

2.2 General

The short descriptions given in the *Bill of Quantities* in C2.2 are brief descriptions used to identify the activities for which Prices are required. Detailed descriptions of the activities to be priced are provided in the *Scope of Work*.

For the purpose of the *Bill of Quantities*, the following words shall have the meanings hereby assigned to them:

Unit:	The unit of measurement for each item of Work.
Quantity:	The number of units of Work for each item.
Rate:	The agreed payment per unit of measurement.
Amount:	The product of the quantity and the agreed rate for an item.
Sum:	An agreed lump sum payment amount for an item, the extent of which is described in the <i>Scope of Work</i> , but the quantity of Work, which is not measured in any units.

A rate, sum, and/or Price as applicable, is to be entered against each item in the *Bill of Quantities*. An item against which no Price is entered will be considered to be covered by the other Prices or rates in the *Bill of Quantities*.

The rates, sums and Prices in the *Bill of Quantities* are to be fully inclusive Prices for the Work described under the several items. Such Prices and rates cover all costs and expenses that may be required in and for the execution of the Work described in accordance with the provisions of the *Scope of Work*, and shall cover the

cost of all general risks, liabilities, and obligations set forth or implied in the Conditions of *Contract*, as well as overhead charges and profit.

The quantities set out in the *Bills of Quantities* are the estimated quantities of the *Contract Works*, but the *Contractor* will be required to undertake whatever quantities may be directed by the *Supervisor* from time to time. The *Contract Price* for the completed *Contract* shall be computed from the actual quantities of Work done, valued at the relevant unit rates and Prices.

Contractors are to note that no reimbursement of costs for subsistence, typing, printing/copying, communications or computer hardware and/or software will be made and these costs will be deemed included in rates, sums, percentage fees and Prices for normal and additional Works.

All rates and Prices offered shall price in South African Rand and shall be exclusive of VAT or other similar taxes.

The rates and Prices shall not be subject to escalation and shall remain fixed for the duration of the *Contract*.

3 Preliminary and General - Establishment

3.1 Fixed costs

The unit of measurement shall be the sum.

The Price shall include for:

- All fixed preliminary and general costs including but not limited to *Contractual* provisions, permitting and approvals, insurances, Site establishment and removal costs and any other general costs and expenses that remain constant for the duration of the *Contract*, irrespective of the *Contract* period. This shall include all facilities necessary for the *Contractor* to undertake the Works (e.g. plant/equipment/tools, storage sheds for core boxes/samples/equipment/tools, *Contractor's* office, chemical toilets for *Contractor's* staff, eating areas, telephones, electricity, water, waste disposal, etc.) in addition to facilities for the *Supervisor* (comprising a lockable office with 2 desks and 4 chairs and a chemical toilet). The Price shall include all costs associated with preparation and submission of documentation, files and plans required to meet the requirements of the OSH Act, Transnet Health and Safety Specifications (including COVID-19 management), Environmental, Quality Assurance and Document Control Specifications as set out in the *Scope of Work* Annexures.
- The cost of establishment on Site of all equipment, tools and materials to be used during the *Contract*. This shall include all facilities necessary for the *Contractor* to undertake the Works. No additional payment will be made for the establishment of additional equipment that the *Contractor* may subsequently elect to mobilise in order to meet the requirements of the *Contract*.
- The cost to remove from Site all equipment, tools and materials which will be established for use during the *Contract*.
- It should be noted that, regardless of the intended Works method of the *Contractor*, pricing (for comparative purposes) should be based on the use of **three geotechnical investigation teams (two drilling/DPSH testing crews and one test pitting team)**. If the *Contractor* intends to use more resources/equipment than specified, he shall propose his Works method within the Tender submission and submit an alternative Price list.
- Mobilization of equipment is provided for separately.

3.2 Time related costs; including implementation of OHS, EMP and Quality

The unit of measurement shall be days.

The rate shall include for:

- All time related preliminary and general costs including but not limited to *Contractual* provisions, company overheads, supervision and equipment hire not included elsewhere in the *Bill of Quantities* and any other general cost and expenses that are variable in terms of the *Contract* period.
- All costs associated with meeting the requirements of the OSH Act, Transnet Health and Safety Specifications (including COVID-19 management), Environmental, Quality Assurance and Document Control Specifications as set out in the *Scope of Work*.

3.3 Supply and service 1 chemical toilet

The unit of measurement shall be days.

4 Geotechnical Investigation – Underground Services/Structures/ Features Detection

4.1 Underground services/structures/features detection; including equipment, set-up, labour and move equipment

The unit of measurement shall be the sum.

The rate shall include all equipment, tools, materials, preparation and personnel required to carry out the Work as specified.

5 Geotechnical Investigation – Borehole Drilling

5.1 Set-up and move equipment

The unit of measurement shall be the number of borehole positions.

The rate shall include for setting out and recording the position and level, all Work required to access the position (including moving the platforms and/or vessels, drilling rigs, SPT and other related equipment), setting up as well as bush clearing should it be required, provision of all equipment and personnel necessary to set up the various items of equipment at each position (land- and marine-based boreholes) and to move the equipment on completion of the Work at each location to the following location as may be applicable.

Where instructed by the *Supervisor*, a 1,5m deep inspection pit is to be excavated at selected borehole positions prior to drilling in order to identify and prevent damage to any possible underground services/ structures/features.

Drilling positions will be set out by the *Supervisor*. Alternatively, the co-ordinates of the drilling positions will be provided by the *Supervisor* for setting out by the *Contractor*.

5.2 Installation of temporary casings from platform to seabed

The unit of measurement shall be per metre of temporary casing required between the platform and seabed.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified.

5.3 Washboring (N-size); including temporary casings

The unit of measurement shall be per linear metre of vertical drilling in soils measured from ground level.

The rate shall include for all costs involved in undertaking the washboring and recovery of the samples. The rate shall include all equipment, tools, materials, temporary casing where required at the discretion of the driller, controls and personnel, supply of water required to carry out the Work as specified and record keeping.

5.4 Rotary core drilling (N-size, NWD4) through soft and hard rock, gravels, boulders, obstructions and concrete rubble; including temporary casings

The unit of measurement shall be per linear metre of vertical drilling through gravels/boulders/ obstructions and rock as defined in the *Scope of Work*, irrespective of depth.

The rate shall include all equipment, tools, materials, temporary casing where required at the discretion of the driller, controls and personnel, supply of drilling mud and water required to carry out the Work as specified, cement, delays in the progress of the boreholes, boxing of cores (supply of boxes priced elsewhere), transportation to storage and record keeping.

5.5 Undisturbed sampling (Shelby tubes)

The unit of measurement shall be the number of Shelby tube samples recovered.

The rate shall include for all equipment, materials, sample preparation (sealing and labelling of the Shelby tube), personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.6 Standard Penetration Test (at 1,0m intervals)

The unit of measurement shall be the number of Standard Penetration Tests (SPTs) performed in accordance with the *Scope of Work*.

The rate shall include all equipment, materials, sample recovery and placement in plastic sleeves, boxing of samples, personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.7 Point Load Index (at 2,0m intervals, on rock)

The unit of measurement shall be the number of Point Load Index tests performed in accordance with the *Scope of Work*.

The rate shall include for all equipment, materials, personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.8 Preparation of core samples for laboratory testing

The unit of measurement shall be the number of samples prepared in accordance with the *Scope of Work*.

The rate shall include for all equipment, materials, personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.9 Supply and install of 25mm ID piezometers; including 2 measurements (at 24 and 48 hours after completion of boreholes)

The unit of measurement shall be per linear metre of piezometer installed in the boreholes after drilling as instructed by the *Supervisor*.

The rate shall include all equipment, materials, preparation and personnel required to carry out the Work as specified, including sealing the top of the borehole with a bentonite plug and the recording of two measurements as instructed by the *Supervisor*.

5.10 Core boxes (for N-size core and SPT samples)

The unit of measurement shall be number of core boxes.

The rate shall include for all equipment, materials and personnel to manufacture the boxes and labelling of the core boxes. This rate is to include the transport of the core boxes to the *Employer's* storage facility. The box will remain the property of the *Employer*.

5.11 Core photography

The unit of measurement shall be the number of boreholes.

The Price shall include all costs and equipment involved to photograph all cores and samples in accordance with the *Scope of Work*. This Price shall include all deliverables, which includes 2 hard copies of all photographs together with the digital files, to the *Employer*.

5.12 Backfill boreholes with cement/bentonite grout

The unit of measurement shall be per linear metre of borehole backfilled with the cement/bentonite grout.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified.

5.13 Standing time for drilling rig and platform

The unit of measurement shall be the number of hours.

Standing time shall only be measured for payments of periods in excess of 1 hour, for delays caused either by the *Supervisor* or conditions beyond the control of the *Contractor* rendering unsafe working conditions. The actual measurement will be made for the full period during normal working hours for which standing time was agreed, measured to the nearest half hour.

Inclement weather shall not be considered as a reason for claiming standing time. However, time lost on account of inclement weather shall be added on to the *Contract* period.

6 Geotechnical Investigation – Dynamic Probe (Super Heavy)

6.1 Set-up and move equipment

The unit of measurement shall be the number of Dynamic Probe (Super Heavy) (DPSH) test positions.

The rate shall include for setting out and recording the position and level, all Work required to access the position (including moving the platforms and/or vessels, DPSH and other related equipment), setting up as well as bush clearing should it be required, provision of all equipment and personnel necessary to set up the various items of equipment at each position (land- and marine-based) and to move the equipment on completion of the Work at each location to the following location as may be applicable.

Where instructed by the *Supervisor*, a 1,5m deep inspection pit is to be excavated at selected DPSH test positions prior to performance of the test in order to identify and prevent damage to any possible underground services/structures/features.

DPSH test positions will be set out by the *Supervisor*. Alternatively, the co-ordinates of the DPSH test positions will be provided by the *Supervisor* for setting out by the *Contractor*.

6.2 Installation of temporary casings from platform to seabed

The unit of measurement shall be per metre of temporary casing required between the platform and seabed.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified.

6.3 DPSH test

The unit of measurement shall be per linear metre of DPSH tests performed in accordance with the *Scope of Work*.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified, including recording all measurements and record keeping.

6.4 Backfill DPSH test holes with cement/bentonite grout

The unit of measurement shall be per linear metre of DPSH test hole backfilled with the cement/ bentonite grout.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified.

7 Geotechnical Investigation – Test Pitting and DCP Testing

7.1 TLB excavated test pits

The unit of measurement shall be days.

The rate shall include for:

1. Provision of a Tractor-mounted loader backhoe (TLB).
2. All Work required to access the test pitting positions as well as minor bush clearing (should it be required).
3. Provision of all associated equipment (e.g. drip trays), maintenance, repairs and fuel (wet rate).
4. Personnel necessary to set up/operate the TLB at each position.
5. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour.
6. Assistance with sampling.
7. Removal of excess soil, concrete, waste and debris.
8. Backfilling (and compaction in layers using a mechanical compactor where required).
9. Making up the shortfall of material and reinstatement of existing layerworks.
10. Sweeping and cleaning the immediate surrounds of the test pit area.
11. Accommodation of traffic.

Positions of the test pits will be set out by the *Supervisor*. Alternatively, the co-ordinates of the test pits will be provided by the *Supervisor* for setting out by the *Contractor*.

At least 1 labourer must be provided, with a shovel and sampling bags, to assist the *Supervisor* with sampling the soils from the excavated test pits.

7.2 Hand excavated test pits

The unit of measurement shall be the number of test pits.

The rate shall include for:

1. All Work required to access the test pitting positions as well as minor bush clearing (should it be required).
2. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour.
3. Assistance with sampling.
4. Removal of excess soil, concrete, waste and debris.
5. Backfilling (and compaction in layers using a mechanical compactor where required).
6. Making up the shortfall of material and reinstatement of existing layerworks.
7. Sweeping and cleaning the immediate surrounds of the test pit area.
8. Accommodation of traffic.

Positions of the test pits will be set out by the *Supervisor*. Alternatively, the co-ordinates of the test pits will be provided by the *Supervisor* for setting out by the *Contractor*.

At least 1 labourer must be provided, with a shovel and sampling bags, to assist the *Supervisor* with sampling the soils from the excavated test pits.

7.3 Hand-held in-situ DCP tests (2,0m deep)

The unit of measurement shall be the number of tests.

The rate shall include for all equipment, materials and personnel required to carry out the tests, including recording all measurements.

8 Surveying

8.1 Survey of all boreholes, test pit and DPSH test positions (X,Y,Z) in terms of WGS 84 co-ordinate system, and relative to Chart Datum (CD)

The unit of measurement shall be the sum.

The Price shall include for all equipment and personnel required to set out the positions at which the boreholes are to be drilled/test pits are to be excavated/DPSH tests are to be performed in accordance with the *Scope of Work*, including all record keeping.

9 Laboratory Testing

9.1 Sample collection and delivery

The unit of measurement shall be the number of trips.

The rate shall include all costs associated with the transportation of the samples from the Site to the laboratory as specified.

It is the intention that after the samples have been taken and prepared on Site, the responsibility will be for the *Contractor*, after approval has been given by the *Supervisor*, to contact the laboratory to make arrangements for either the collection of the samples from the Site office or alternatively delivery of the samples to the laboratory, in order to commence with the necessary testing.

9.2 Testing

The unit of measurement shall be number.

The rates shall be deemed to be the fully inclusive value of the Work covered by the several tests, including the following unless specified otherwise:

1. Sample preparation on Site prior to temporary storage on Site.
2. Sampling consumables such as sample bags, cable ties and labels for disturbed soil samples, plastic cling wrap for undisturbed soil samples, and wax and cling wrap for core and Shelby tube samples. The *Contractor* will be required to provide the consumables at the commencement of the fieldwork.
3. The supply of materials, goods, storage, facilities and services and all costs connected therewith including wastage.
4. Sample preparation at the laboratory, testing and reporting.
5. Storage of the unused and untested sample material and disposal after expiry of the defects period.
6. All general obligations, requirements, liabilities and risks involved in the execution of the specified laboratory tests.

10 Data Records

10.1 Field and laboratory test results

The unit of measurement shall be the sum.

The Price shall include all costs involved to record, store, sort, format, compile data files and produce drawings and reports. This Price shall include all deliverables, which includes the delivery of 2 copies of the data files, to the *Employer*.

SCOPE A.2: ADDITIONAL ADMINISTRATIVE FACILITIES AND OFFICE CONSOLIDATION

(PORT OF EAST LONDON - LAND SECTION)

1 Conditions of *Contract*

1.1 How the *Contract Prices* work and assesses it for progress payment

Clause 11 in NEC3 Engineering and Construction *Contract*, June 2005 (ECC3) Option B states:

Identified and defined terms 11 (21) The *Bill of Quantities* is the *Bill of Quantities* as changed in accordance with this *Contract* to accommodate implemented compensation events and for accepted quotations for acceleration.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether Work is *Sub-Contracted* or not excluding the cost of preparing quotations for compensation events.

(28) The Price for Work Done to Date is the total of the quantity of the Work, which the *Contractor* has completed for each item in the *Bill of Quantities* multiplied by the rate and a proportion of each lump sum, which is the proportion of the Work covered by the item, which the *Contractor* has completed.

Completed Work is Work without Defects, which either would delay or be covered by immediately following Work.

(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the *Bill of Quantities*.

This confirms that Option B is a re-measurement *Contract* and the *Bill* comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2 Function of the *Bill of Quantities*

Clause 55.1 in Option B states, "Information in the *Bill of Quantities* is not *Work Information* or *Site Information*". This confirms that instructions to do Work or how it is to be done are not included in the *Bill*, but in the *Work Information*. This is further confirmed by Clause 20.1, which states, "The *Contractor* provides the Works in accordance with the *Work Information*". Hence, the *Contractor* does not provide the Works in accordance with the *Bill of Quantities*. The *Bill of Quantities* is only a pricing document.

1.3 Guidance before pricing and measuring

Employers preparing Tenders or *Contract* documents, and tendering *Contractors* are advised to consult the sections dealing with the *Bill of Quantities* in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *Bill of Quantities* or before entering rates and lump sums into the *Bill*.

Historically *Bill of Quantities* based *Contracts* in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of *Contract* and methods of measurement. This is particularly apparent in the approach to the Preliminary and General (P&G) *Bill*. On the other hand, because ECC3 caters for a number of disciplines in the same *Contract*, including electrical Works, a different approach not currently found in local methods of measurement to the P&G *Bill* items may have been used.

The NEC approach to the P&G *Bill* assumes use will be made of method related charges for equipment applied to providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing Work items typically included in other parts of the *Bill*.

2 Measurement and Payment

2.1 General assumptions

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

The Prices and rates stated for each item in the *Bill of Quantities* shall be treated as being fully inclusive of all Work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.

Where this *Contract* requires detailed drawings, designs or other information to be provided, and no rates or Prices are included in the *Bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the Tendered rates and Prices in the *Bill of Quantities*.

An item against which no Price is entered will be treated as covered by other Prices or rates in the *Bill of Quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.

The quantities contained in the *Bill of Quantities* may not be final and do not necessarily represent the actual amount of Work to be done. The quantities of Work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the *Bill of Quantities*.

The short descriptions of the items of payment given in the *Bill of Quantities* are only for the purposes of identifying the items. More detail regarding the extent of the Work entailed under each item is provided in the *Scope of Work*, Part C3

2.2 General

The short descriptions given in the *Bill of Quantities* in C2.2 are brief descriptions used to identify the activities for which Prices are required. Detailed descriptions of the activities to be priced are provided in the *Scope of Work*.

For the purpose of the *Bill of Quantities*, the following words shall have the meanings hereby assigned to them:

Unit:	The unit of measurement for each item of Work.
Quantity:	The number of units of Work for each item.
Rate:	The agreed payment per unit of measurement.
Amount:	The product of the quantity and the agreed rate for an item.
Sum:	An agreed lump sum payment amount for an item, the extent of which is described in the <i>Scope of Work</i> , but the quantity of Work, which is not measured in any units.

A rate, sum, and/or Price as applicable, is to be entered against each item in the *Bill of Quantities*. An item against which no Price is entered will be considered to be covered by the other Prices or rates in the *Bill of Quantities*.

The rates, sums and Prices in the *Bill of Quantities* are to be fully inclusive Prices for the Work described under the several items. Such Prices and rates cover all costs and expenses that may be required in and for the execution of the Work described in accordance with the provisions of the *Scope of Work*, and shall cover the

cost of all general risks, liabilities, and obligations set forth or implied in the Conditions of *Contract*, as well as overhead charges and profit.

The quantities set out in the *Bills of Quantities* are the estimated quantities of the *Contract Works*, but the *Contractor* will be required to undertake whatever quantities may be directed by the *Supervisor* from time to time. The *Contract Price* for the completed *Contract* shall be computed from the actual quantities of Work done, valued at the relevant unit rates and Prices.

Contractors are to note that no reimbursement of costs for subsistence, typing, printing/copying, communications or computer hardware and/or software will be made and these costs will be deemed included in rates, sums, percentage fees and Prices for normal and additional Works.

All rates and Prices offered shall price in South African Rand and shall be exclusive of VAT or other similar taxes.

The rates and Prices shall not be subject to escalation and shall remain fixed for the duration of the *Contract*.

3 Preliminary and General - Establishment

3.1 Fixed costs

The unit of measurement shall be the sum.

The Price shall include for:

- All fixed preliminary and general costs including but not limited to *Contractual* provisions, permitting and approvals, insurances, Site establishment and removal costs and any other general costs and expenses that remain constant for the duration of the *Contract*, irrespective of the *Contract* period. This shall include all facilities necessary for the *Contractor* to undertake the Works (e.g. plant/equipment/tools, storage sheds for core boxes/samples/equipment/tools, *Contractor's* office, chemical toilets for *Contractor's* staff, eating areas, telephones, electricity, water, waste disposal, etc.) in addition to facilities for the *Supervisor* (comprising a lockable office with 2 desks and 4 chairs and a chemical toilet). The Price shall include all costs associated with preparation and submission of documentation, files and plans required to meet the requirements of the OSH Act, Transnet Health and Safety Specifications (including COVID-19 management), Environmental, Quality Assurance and Document Control Specifications as set out in the *Scope of Work* Annexures.
- The cost of establishment on Site of all equipment, tools and materials to be used during the *Contract*. This shall include all facilities necessary for the *Contractor* to undertake the Works. No additional payment will be made for the establishment of additional equipment that the *Contractor* may subsequently elect to mobilise in order to meet the requirements of the *Contract*.
- The cost to remove from Site all equipment, tools and materials which will be established for use during the *Contract*.
- It should be noted that, regardless of the intended Works method of the *Contractor*, pricing (for comparative purposes) should be based on the use of **three geotechnical investigation teams (two drilling crews and one test pitting team)**. If the *Contractor* intends to use more resources/equipment than specified, he shall propose his Works method within the Tender submission and submit an alternative Price list.
- Mobilization of equipment is provided for separately.

3.2 Time related costs; including implementation of OHS, EMP and Quality

The unit of measurement shall be days.

The rate shall include for:

- All time related preliminary and general costs including but not limited to *Contractual* provisions, company overheads, supervision and equipment hire not included elsewhere in the *Bill of Quantities* and any other general cost and expenses that are variable in terms of the *Contract* period.
- All costs associated with meeting the requirements of the OSH Act, Transnet Health and Safety Specifications, Environmental, Quality Assurance and Document Control Specifications as set out in the *Scope of Work*.

3.3 Supply and service 1 chemical toilet

The unit of measurement shall be days.

4 Geotechnical Investigation – Underground Services/Structures/ Features Detection

4.1 Underground services/structures/features detection; including equipment, set-up, labour and move equipment

The unit of measurement shall be the sum.

The rate shall include all equipment, tools, materials, preparation and personnel required to carry out the Work as specified.

5 Geotechnical Investigation – Borehole Drilling

5.1 Set-up and move equipment; including 1,5m deep inspection pit where required

The unit of measurement shall be the number of borehole positions.

The rate shall include all Work required to access the position (including transporting the drilling rigs, SPT and other related equipment), setting up as well as bush clearing should it be required, provision of all equipment and personnel necessary to set up the various items of equipment at each position (vertical and inclined boreholes) and to move the equipment on completion of the Work at each location to the following location as may be applicable.

Where instructed by the *Supervisor*, a 1,5m deep inspection pit is to be excavated at each borehole position prior to drilling in order to identify and prevent damage to any possible underground services/structures/features.

Drilling positions will be set out by the *Supervisor*. Alternatively, the co-ordinates of the drilling positions will be provided by the *Supervisor* for setting out by the *Contractor*.

5.2 Washboring (N-size); including temporary casings

The unit of measurement shall be per linear metre of vertical and inclined drilling in soils measured from ground level.

The rate shall include for all costs involved in undertaking the washboring and recovery of the samples. The rate shall include all equipment, tools, materials, temporary casing where required at the discretion of the driller, controls and personnel, supply of water required to carry out the Work as specified and record keeping.

5.3 Rotary core drilling (N-size, NWD4) through soft and hard rock, gravels, boulders, obstructions and concrete rubble; including temporary casings

The unit of measurement shall be per linear metre of vertical and inclined drilling through gravels/boulders/obstructions and rock as defined in the *Scope of Work*, irrespective of depth.

The rate shall include all equipment, tools, materials, temporary casing where required at the discretion of the driller, controls and personnel, supply of drilling mud and water required to carry out the Work as specified, cement, delays in the progress of the boreholes, boxing of cores (supply of boxes priced elsewhere), transportation to storage and record keeping.

5.4 Undisturbed sampling (Shelby tubes)

The unit of measurement shall be the number of Shelby tube samples recovered.

The rate shall include for all equipment, materials, sample preparation (sealing and labelling of the Shelby tube), personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.5 Standard Penetration Test (at 1,0m intervals)

The unit of measurement shall be the number of Standard Penetration Tests (SPTs) performed in accordance with the *Scope of Work*.

The rate shall include all equipment, materials, sample recovery and placement in plastic sleeves, boxing of samples, personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.6 Preparation of core samples for laboratory testing

The unit of measurement shall be the number of samples prepared in accordance with the *Scope of Work*.

The rate shall include for all equipment, materials, personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.7 Supply and install of 25mm ID piezometers; including 2 measurements (at 24 and 48 hours after completion of boreholes)

The unit of measurement shall be per linear metre of piezometer installed in the boreholes after drilling as instructed by the *Supervisor*.

The rate shall include all equipment, materials, preparation and personnel required to carry out the Work as specified, including sealing the top of the borehole with a bentonite plug and the recording of two measurements as instructed by the *Supervisor*.

5.8 Core boxes (for N-size core and SPT samples)

The unit of measurement shall be number of core boxes.

The rate shall include for all equipment, materials and personnel to manufacture the boxes and labelling of the core boxes. This rate is to include the transport of the core boxes to the *Employer's* storage facility. The box will remain the property of the *Employer*.

5.9 Core photography

The unit of measurement shall be the number of boreholes.

The Price shall include all costs and equipment involved to photograph all cores and samples in accordance with the *Scope of Work*. This Price shall include all deliverables, which includes 2 hard copies of all photographs together with the digital files, to the *Employer*.

5.10 Backfill boreholes with cement/bentonite grout

The unit of measurement shall be per linear metre of borehole (vertical and inclined) backfilled with the cement/bentonite grout.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified.

5.11 Core orientation

The unit of measure shall be the number.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified in standard specifications, delays to the progress of the boreholes, carrying out the impressions and orientating the core, recording all measurements and keeping records. Depths will be determined by the *Supervisor*.

6 Geotechnical Investigation – Test Pitting and DCP Testing

6.1 TLB excavated test pits

The unit of measurement shall be days.

The rate shall include for:

1. Provision of a Tractor-mounted loader backhoe (TLB).
2. All Work required to access the test pitting positions as well as minor bush clearing (should it be required).
3. Provision of all associated equipment (e.g. drip trays), maintenance, repairs and fuel (wet rate).
4. Personnel necessary to set up/operate the TLB at each position.
5. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour.
6. Assistance with sampling.
7. Removal of excess soil, concrete, waste and debris.
8. Backfilling (and compaction in layers using a mechanical compactor where required).
9. Making up the shortfall of material and reinstatement of existing layerworks.
10. Sweeping and cleaning the immediate surrounds of the test pit area.
11. Accommodation of traffic.

Positions of the test pits will be set out by the *Supervisor*. Alternatively, the co-ordinates of the test pits will be provided by the *Supervisor* for setting out by the *Contractor*.

At least 1 labourer must be provided, with a shovel and sampling bags, to assist the *Supervisor* with sampling the soils from the excavated test pits.

6.2 Hand excavated test pits

The unit of measurement shall be the number of test pits.

The rate shall include for:

1. All Work required to access the test pitting positions as well as minor bush clearing (should it be required).
2. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour.
3. Assistance with sampling.
4. Removal of excess soil, concrete, waste and debris.
5. Backfilling (and compaction in layers using a mechanical compactor where required).
6. Making up the shortfall of material and reinstatement of existing layerworks.
7. Sweeping and cleaning the immediate surrounds of the test pit area.
8. Accommodation of traffic.

Positions of the test pits will be set out by the *Supervisor*. Alternatively, the co-ordinates of the test pits will be provided by the *Supervisor* for setting out by the *Contractor*.

At least 1 labourer must be provided, with a shovel and sampling bags, to assist the *Supervisor* with sampling the soils from the excavated test pits.

6.3 Hand-held in-situ DCP tests (2,0m deep)

The unit of measurement shall be the number of tests.

The rate shall include for all equipment, materials and personnel required to carry out the tests, including recording all measurements.

7 Surveying

7.1 Survey of all boreholes and test pit positions (X,Y,Z) in terms of WGS 84 co-ordinate system, and relative to Mean Sea Level (MSL)

The unit of measurement shall be the sum.

The Price shall include for all equipment and personnel required to set out the positions at which the boreholes are to be drilled/test pits are to be excavated in accordance with the *Scope of Work*, including all record keeping.

8 Laboratory Testing

8.1 Sample collection and delivery

The unit of measurement shall be the number of trips.

The rate shall include all costs associated with the transportation of the samples from the Site to the laboratory as specified.

It is the intention that after the samples have been taken and prepared on Site, the responsibility will be for the *Contractor*, after approval has been given by the *Supervisor*, to contact the laboratory to make arrangements for either the collection of the samples from the Site office or alternatively delivery of the samples to the laboratory, in order to commence with the necessary testing.

8.2 Testing

The unit of measurement shall be number.

The rates shall be deemed to be the fully inclusive value of the Work covered by the several tests, including the following unless specified otherwise:

1. Sample preparation on Site prior to temporary storage on Site.
2. Sampling consumables such as sample bags, cable ties and labels for disturbed soil samples, plastic cling wrap for undisturbed soil samples, and wax and cling wrap for core and Shelby tube samples. The *Contractor* will be required to provide the consumables at the commencement of the fieldwork.
3. The supply of materials, goods, storage, facilities and services and all costs connected therewith including wastage.
4. Sample preparation at the laboratory, testing and reporting.
5. Storage of the unused and untested sample material and disposal after expiry of the defects period.
6. All general obligations, requirements, liabilities and risks involved in the execution of the specified laboratory tests.

9 Data Records

9.1 Field and laboratory test results

The unit of measurement shall be the sum.

The Price shall include all costs involved to record, store, sort, format, compile data files and produce drawings and reports. This Price shall include all deliverables, which includes the delivery of 2 copies of the data files, to the *Employer*.

SCOPE B: OLD TUG JETTY SHEET PILE REHABILITATION (PORT OF PORT ELIZABETH)

1 Conditions of *Contract*

1.1 How the *Contract Prices* work and assesses it for progress payment

Clause 11 in NEC3 Engineering and Construction Contract, June 2005 (ECC3) Option B states:

Identified and defined terms 11 (21) The *Bill of Quantities* is the *Bill of Quantities* as changed in accordance with this *Contract* to accommodate implemented compensation events and for accepted quotations for acceleration.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether Work is *Sub-Contracted* or not excluding the cost of preparing quotations for compensation events.

(28) The Price for Work Done to Date is the total of the quantity of the Work, which the *Contractor* has completed for each item in the *Bill of Quantities* multiplied by the rate and a proportion of each lump sum, which is the proportion of the Work covered by the item, which the *Contractor* has completed.

Completed Work is Work without Defects, which either would delay or be covered by immediately following Work.

(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the *Bill of Quantities*.

This confirms that Option B is a re-measurement *Contract* and the *Bill* comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2 Function of the *Bill of Quantities*

Clause 55.1 in Option B states, "Information in the *Bill of Quantities* is not *Work Information* or *Site Information*". This confirms that instructions to do Work or how it is to be done are not included in the *Bill*, but in the *Work Information*. This is further confirmed by Clause 20.1, which states, "The *Contractor* provides the Works in accordance with the *Work Information*". Hence, the *Contractor* does not provide the Works in accordance with the *Bill of Quantities*. The *Bill of Quantities* is only a pricing document.

1.3 Guidance before pricing and measuring

Employers preparing tenders or *Contract* documents, and tendering *Contractors* are advised to consult the sections dealing with the *Bill of Quantities* in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *Bill of Quantities* or before entering rates and lump sums into the *Bill*.

Historically *Bill of Quantities* based *Contracts* in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of *Contract* and methods of measurement. This is particularly apparent in the approach to the Preliminary and General (P&G) *Bill*. On the other hand, because ECC3 caters for a number of disciplines in the same *Contract*, including electrical Works, a different approach not currently found in local methods of measurement to the P&G *Bill* items may have been used.

The NEC approach to the P&G *Bill* assumes use will be made of method related charges for equipment applied to providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing Work items typically included in other parts of the *Bill*.

2 Measurement and Payment

2.1 General assumptions

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

The Prices and rates stated for each item in the *Bill of Quantities* shall be treated as being fully inclusive of all Work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.

Where this *Contract* requires detailed drawings, designs or other information to be provided, and no rates or Prices are included in the *Bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the tendered rates and Prices in the *Bill of Quantities*.

An item against which no Price is entered will be treated as covered by other Prices or rates in the *Bill of Quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.

The quantities contained in the *Bill of Quantities* may not be final and do not necessarily represent the actual amount of Work to be done. The quantities of Work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the *Bill of Quantities*.

The short descriptions of the items of payment given in the *Bill of Quantities* are only for the purposes of identifying the items. More detail regarding the extent of the Work entailed under each item is provided in the *Scope of Work*, Part C3.

2.2 General

The short descriptions given in the *Bill of Quantities* in C2.2 are brief descriptions used to identify the activities for which Prices are required. Detailed descriptions of the activities to be priced are provided in the *Scope of Work*.

For the purpose of the *Bill of Quantities*, the following words shall have the meanings hereby assigned to them:

Unit:	The unit of measurement for each item of Work.
Quantity:	The number of units of Work for each item.
Rate:	The agreed payment per unit of measurement.
Amount:	The product of the quantity and the agreed rate for an item.
Sum:	An agreed lump sum payment amount for an item, the extent of which is described in the <i>Scope of Work</i> , but the quantity of Work, which is not measured in any units.

A rate, sum, and/or Price as applicable, is to be entered against each item in the *Bill of Quantities*. An item against which no Price is entered will be considered to be covered by the other Prices or rates in the *Bill of Quantities*.

The rates, sums and Prices in the *Bill of Quantities* are to be fully inclusive Prices for the Work described under the several items. Such Prices and rates cover all costs and expenses that may be required in and for the execution of the Work described in accordance with the provisions of the *Scope of Work*, and shall cover the

cost of all general risks, liabilities, and obligations set forth or implied in the Conditions of *Contract*, as well as overhead charges and profit.

The quantities set out in the *Bills of Quantities* are the estimated quantities of the *Contract Works*, but the *Contractor* will be required to undertake whatever quantities may be directed by the *Supervisor* from time to time. The *Contract Price* for the completed *Contract* shall be computed from the actual quantities of Work done, valued at the relevant unit rates and Prices.

Contractors are to note that no reimbursement of costs for subsistence, typing, printing/copying, communications or computer hardware and/or software will be made and these costs will be deemed included in rates, sums, percentage fees and Prices for normal and additional Works.

All rates and Prices offered shall price in South African Rand and shall be exclusive of VAT or other similar taxes.

The rates and Prices shall not be subject to escalation and shall remain fixed for the duration of the *Contract*.

3 Preliminary and General - Establishment

3.1 Fixed costs; including lockable office with 2 desks and 4 chairs

The unit of measurement shall be the sum.

The Price shall include for:

- All fixed preliminary and general costs including but not limited to *Contractual* provisions, permitting and approvals, insurances, Site establishment and removal costs and any other general costs and expenses that remain constant for the duration of the *Contract*, irrespective of the *Contract* period. This shall include all facilities necessary for the *Contractor* to undertake the Works (e.g. plant/equipment/tools, storage sheds for core boxes/samples/equipment/tools, *Contractor's* office, chemical toilets for *Contractor's* staff, eating areas, telephones, electricity, water, waste disposal, etc.) in addition to facilities for the *Supervisor* (comprising a lockable office with 2 desks and 4 chairs and a chemical toilet). The Price shall include all costs associated with preparation and submission of documentation, files and plans required to meet the requirements of the OHS Act, Transnet Health and Safety Specifications (including COVID-19 management), Environmental, Quality Assurance and Document Control Specifications as set out in the *Scope of Work* Annexures.
- The cost of establishment on Site of all equipment, tools and materials to be used during the *Contract*. This shall include all facilities necessary for the *Contractor* to undertake the Works. No additional payment will be made for the establishment of additional equipment that the *Contractor* may subsequently elect to mobilise in order to meet the requirements of the *Contract*.
- The cost to remove from Site all equipment, tools and materials which will be established for use during the *Contract*.
- It should be noted that, regardless of the intended Works method of the *Contractor*, pricing (for comparative purposes) should be based on the use of **three geotechnical investigation teams (two drilling crews and one test pitting team)**. If the *Contractor* intends to use more resources/equipment than specified, he shall propose his Works method within the tender submission and submit an alternative Price list.
- Mobilization of equipment is provided for separately.

3.2 Time related costs; including implementation of OHS, EMP and Quality

The unit of measurement shall be days.

The rate shall include for:

- All time related preliminary and general costs including but not limited to *Contractual* provisions, company overheads, supervision and equipment hire not included elsewhere in the *Bill of Quantities* and any other general cost and expenses that are variable in terms of the *Contract* period.
- All costs associated with meeting the requirements of the OSH Act, Transnet Health and Safety Specifications (including COVID-19 management), Environmental, Quality Assurance and Document Control Specifications as set out in the *Scope of Work*.

3.3 Supply and service 1 chemical toilet

The unit of measurement shall be days.

4 Geotechnical Investigation – Underground Services/Structures/ Features Detection

4.1 Underground services/structures/features detection; including set-up and move equipment

The unit of measurement shall be the sum.

The rate shall include all equipment, tools, materials, preparation and personnel required to carry out the Work as specified.

5 Geotechnical Investigation – Borehole Drilling

5.1 Set up and move equipment

The unit of measurement shall be the number of boreholes.

The rate shall include for setting out and recording the position and level, all Work required to access the position (including moving the platforms and/or vessels, drilling rigs and other related equipment), provision of all equipment and personnel necessary to set up the various items of equipment at each position and to move the equipment on completion of the Work at each location to the following location as may be applicable.

The co-ordinates of the drilling positions will be provided by the *Supervisor* for setting out by the *Contractor*.

5.2 Installation of temporary casings from platform to seabed

The unit of measurement shall be per metre of temporary casing required between the platform and seabed.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified.

5.3 Washboring (N size); including temporary casings

The unit of measurement shall be per linear metre of vertical drilling in soils measured from ground level.

The rate shall include for all costs involved in undertaking the washboring and recovery of the samples. The rate shall include all equipment, tools, materials, temporary casing where required at the discretion of the driller, controls, personnel and supply of water required to carry out the Work as specified and record keeping.

5.4 Rotary core drilling (N-size, NWD4) through soft and hard rock, gravels, boulders, obstructions and concrete rubble; including temporary casings

The unit of measurement shall be per linear metre of vertical drilling through gravels/boulders/ obstructions and rock as defined in the *Scope of Work*, irrespective of depth.

The rate shall include all equipment, tools, materials, temporary casing where required at the discretion of the driller, controls and personnel, supply of drilling mud and water required to carry out the Work as specified, cement, delays in the progress of the boreholes, boxing of cores (supply of boxes priced elsewhere), transportation to storage and record keeping.

5.5 Standard Penetration Test (at 1,0m intervals)

The unit of measurement shall be the number of Standard Penetration Tests (SPTs) performed in accordance with the *Scope of Work*.

The rate shall include all equipment, materials, sample recovery and placement in plastic sleeves, boxing of samples, personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.6 Undisturbed sampling (Shelby tubes)

The unit of measurement shall be the number of Shelby tube samples recovered.

The rate shall include for all equipment, materials, sample preparation (sealing and labelling of the Shelby tube), personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.7 Preparation of core samples for laboratory testing

The unit of measurement shall be the number of samples prepared in accordance with the *Scope of Work*.

The rate shall include for all equipment, materials, personnel required to carry out the Work as specified, delays to the progress of the borehole and for keeping of all records.

5.8 Supply and install of 25mm ID piezometers; including 2 measurements

The unit of measurement shall be per linear metre of piezometer installed in the boreholes after drilling as instructed by the *Supervisor*.

The rate shall include all equipment, materials, preparation and personnel required to carry out the Work as specified, including sealing the top of the borehole with a bentonite plug and the recording of two measurements as instructed by the *Supervisor*.

5.9 Core boxes (for N-size core and SPT samples)

The unit of measurement shall be number of core boxes.

The rate shall include for all equipment, materials and personnel to manufacture the boxes and labelling of the boxes. This rate is to include the transport of the boxes to the *Employer's* storage facility. The boxes will remain the property of the *Employer*.

5.10 Core photography

The unit of measurement shall be the number of boreholes required.

The Price shall include all costs and equipment involved to photograph all cores and samples in accordance with the *Scope of Work*. This Price shall include all deliverables, which includes 2 hard copies of all photographs together with the digital files, to the *Employer*.

5.11 Backfill boreholes with soil-cement-bentonite grout

The unit of measurement shall be per linear metre of borehole backfilled with the soil-cement-bentonite grout.

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified.

5.12 Installation of permanent PVC casings in land-based boreholes to prevent loss of backfill material to voids

The unit of measurement shall be per linear metre of borehole cased with Polyvinyl Chloride (PVC).

The rate shall include for all equipment, materials and personnel required to carry out the Work as specified, including potentially slotting the bottom 5m to enable water infiltration for the standpipe piezometers.

5.13 Standing time for drilling rig and platform

The unit of measurement shall be the number of hours.

Standing time shall only be measured for payments of periods in excess of 1 hour, for delays caused either by the *Supervisor* or conditions beyond the control of the *Contractor* rendering unsafe working conditions. The actual measurement will be made for the full period during normal working hours for which standing time was agreed, measured to the nearest half hour.

Inclement weather shall not be considered as a reason for claiming standing time. However, time lost on account of inclement weather shall be added on to the *Contract* period.

6 Geotechnical Investigation – Test Pitting and DCP Testing

6.1 Hand excavated test pits

The unit of measurement shall be the number of test pits.

The rate shall include for:

1. All Work required to access the test pitting positions as well as minor bush clearing (should it be required).
2. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour.
3. Assistance with sampling.
4. Removal of excess soil, concrete, waste and debris.
5. Backfilling (and compaction in layers using a mechanical compactor where required).
6. Making up the shortfall of material and reinstatement of existing layerworks.
7. Sweeping and cleaning the immediate surrounds of the test pit area.
8. Accommodation of traffic.

Positions of the test pits will be set out by the *Supervisor*. Alternatively, the co-ordinates of the test pits will be provided by the *Supervisor* for setting out by the *Contractor*.

At least 1 labourer must be provided, with a shovel and sampling bags, to assist the *Supervisor* with sampling the soils from the excavated test pits.

6.2 Hand-held in-situ DCP tests (1,0m deep)

The unit of measurement shall be the number of tests.

The Price shall include for all equipment, materials and personnel required to carry out the tests, including recording all measurements.

7 Surveying

7.1 Survey of all boreholes and test pit positions (X,Y,Z) in terms of WGS 84 co-ordinate system, and relative to Chart Datum (CD)

The unit of measurement shall be the sum.

The Price shall include for all equipment and personnel required to set out the positions at which the boreholes are to be drilled/test pits are to be excavated in accordance with the *Scope of Work*, including all record keeping.

8 Laboratory Testing

8.1 Sample collection and delivery

The unit of measurement shall be the number of trips.

The rate shall include all costs associated with the transportation of the samples from the Site to the laboratory as specified.

It is the intention that after the samples have been taken and prepared on Site, the responsibility will be for the *Contractor*, after approval has been given by the *Supervisor*, to contact the laboratory to make arrangements for either the collection of the samples from the Site office or alternatively delivery of the samples to the laboratory, in order to commence with the necessary testing.

8.2 Testing

The unit of measurement shall be number.

The rates shall be deemed to be the fully inclusive value of the Work covered by the several tests, including the following unless specified otherwise:

1. Sample preparation on Site prior to temporary storage on Site.
2. Sampling consumables such as sample bags, cable ties and labels for disturbed soil samples, plastic cling wrap for undisturbed soil samples, and wax and cling wrap for core and Shelby tube samples. The *Contractor* will be required to provide the consumables at the commencement of the fieldwork.
3. The supply of materials, goods, storage, facilities and services and all costs connected therewith including wastage.
4. Sample preparation at the laboratory, testing and reporting.
5. Storage of the unused and untested sample material and disposal after expiry of the defects period.
6. All general obligations, requirements, liabilities and risks involved in the execution of the specified laboratory tests.

9 Data Records

9.1 Field and laboratory test results

The unit of measurement shall be the sum.

The Price shall include all costs involved to record, store, sort, format, compile data files and produce drawings and reports. This Price shall include all deliverables, which includes the delivery of 2 copies of the data files, to the *Employer*.

C2.2: BILL OF QUANTITIES

SCOPE A.1: REHABILITATION OF QUAY WALL 3
(PORT OF EAST LONDON - MARINE SECTION)

SCOPE A.2: ADDITIONAL ADMINISTRATIVE FACILITIES AND OFFICE CONSOLIDATION
(PORT OF EAST LONDON - LAND SECTION)

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
SCOPES A.1 AND A.2 (COMBINED): GEOTECHNICAL INVESTIGATION - REHABILITATION OF QUAY WALL 3 (PORT OF EAST LONDON – MARINE SECTION) GEOTECHNICAL INVESTIGATION – ADDITIONAL ADMINISTRATIVE FACILITIES AND OFFICE CONSOLIDATION (PORT OF EAST LONDON – LAND SECTION)						
1	3	<u>Preliminaries and General - Establishment</u>				
1.1		<u>Fixed Charge Items</u>				
1.1.1		Contractual Requirements	Sum	1		
1.1.2		Establish tools and equipment on Site	Sum	1		
1.1.3	3.1	Remove tools and equipment from Site	Sum	1		
1.1.4		Establish lockable office with 2 desks and 4 chairs on Site	Sum	1		
1.1.5		Remove lockable office with 2 desks and 4 chairs from Site	Sum	1		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
1.1.6		Establish chemical toilet on Site	Sum	1		
1.1.7		Remove chemical toilet from Site	Sum	1		
1.2		<u>Time Related Items</u>				
1.2.1		Supervision for the duration of the Contract	days	75		
1.2.2	3.2	Comply with OSH Act, Transnet Health and Safety Specifications, Environmental, QA Specifications & Document Control Requirements	days	75		
1.2.3		Compliance with Covid 19 health and safety regulations, health care waste management and construction health and safety guidelines	days	75		
1.3		<u>Supply and service 1 chemical toilet</u>				
1.3.1	3.3	Service chemical toilet (Supply included under Fixed Charge Items)	days	75		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
SCOPE A.1: GEOTECHNICAL INVESTIGATION - REHABILITATION OF QUAY WALL 3 (PORT OF EAST LONDON – MARINE SECTION)						
2	4	<u>Geotechnical Investigation - Underground Services/Structures/Features Detection</u>				
2.1	4.1	Underground services/ structures/features detection; including equipment, set-up, labour and move equipment	Sum	1		
3	5	<u>Geotechnical Investigation - Borehole Drilling</u>				
3.1		<u>Set up and move equipment</u>				
3.1.1	5.1	Land-based (Drilling equipment and 1,5m deep inspection pit where required)	No.	5		
3.1.2		Marine-based (Floating platform and drilling equipment)	No.	6		
3.2	5.2	Installation of temporary casings from platform to seabed	m	120		
3.3		<u>Washboring (N size); including temporary casings</u>				
3.3.1	5.3	Land-based	m	25		
3.3.2		Marine-based	m	30		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
3.4	5.4	Rotary core drilling (N-size, NWD4) through soft and hard rock, gravels, boulders, obstructions and concrete rubble; including temporary casings				
3.4.1		Land-based	m	75		
3.4.2		Marine-based	m	60		
3.5		Undisturbed sampling (Shelby tubes)				
3.5.1	5.5	Land-based	No.	10		
3.5.2		Marine-based	No.	12		
3.6		Standard Penetration Test (at 1,0m intervals)				
3.6.1	5.6	Land-based	No.	25		
3.6.2		Marine-based	No.	30		
3.7		Point Load Index (at 2,0m intervals, on rock)				
3.7.1	5.7	Land-based	No.	40		
3.7.2		Marine-based	No.	30		
3.8	5.8	Preparation of core samples for laboratory testing	No.	22		
3.9	5.9	Supply and install of 25mm ID piezometers; including 2 measurements	m	100		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
3.10	5.10	Core boxes (for N-size core and SPT samples)	No.	30		
3.11	5.11	Core photography	No.	11		
3.12	5.12	Backfill boreholes with cement/bentonite grout	m	100		
3.13	5.13	Standing time for drilling rig and platform	h	10		
4	6	<u>Geotechnical Investigation – Dynamic Probe (Super Heavy)</u>				
4.1		<u>Set up and move equipment</u>				
4.1.1	6.1	Land-based (DPSH equipment and 1,5m deep inspection pit where required)	No.	4		
4.1.2		Marine-based (Floating platform and DPSH equipment)	No.	5		
4.2	6.2	Installation of temporary casings from platform to seabed	m	100		
4.3		<u>DPSH test</u>				
4.3.1	6.3	Land-based	m	20		
4.3.2		Marine-based	m	25		
4.4	6.4	Backfill DPSH test holes with cement/bentonite grout	m	20		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
5	7	<p><u>Geotechnical Investigation – Test Pitting and DCP Testing</u></p> <p>TLB excavated test pits; including:</p> <ol style="list-style-type: none"> 1. Provision of a Tractor-mounted loader backhoe (TLB) 2. All Work required to access the test pitting positions as well as minor bush clearing (should it be required) 3. Provision of all associated equipment (e.g. drip trays), maintenance, repairs and fuel (wet rate) 4. Personnel necessary to set up/operate the TLB at each position 				
5.1	7.1	<ol style="list-style-type: none"> 5. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour 6. Assistance with sampling 7. Removal of excess soil, concrete, waste and debris 8. Backfilling (and compaction in layers using a mechanical compactor where required) 9. Making up the shortfall of material and reinstatement of existing layerworks 10. Sweeping and cleaning the immediate surrounds of the test pit area 11. Accommodation of traffic 	Days	5		
5.2	7.2	Hand excavated test pits; including:	No.	5		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
		<ol style="list-style-type: none"> 1. All Work required to access the test pitting positions as well as minor bush clearing (should it be required) 2. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour 3. Assistance with sampling 4. Removal of excess soil, concrete, waste and debris 5. Backfilling (and compaction in layers using a mechanical compactor where required) 6. Making up the shortfall of material and reinstatement of existing layerworks 7. Sweeping and cleaning the immediate surrounds of the test pit area 8. Accommodation of traffic <p>(Only where TLB access is restraint, underground services/structures/features are present and/or in the vicinity of existing pavements)</p>				
5.3	7.3	Hand-held in-situ DCP tests (2,0m deep; including tools and labour)	No.	10		
6	8	<u>Surveying</u>				
6.1	8.1	<u>Survey of all boreholes, test pit and DPSH test positions (X,Y,Z) in terms of WGS 84 co-ordinate system, and relative to Chart Datum (CD)</u>				
6.1.1		Land-based boreholes, test pits and DPSH test positions	Sum	1		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
6.1.2		Marine-based boreholes and DPSH test positions	Sum	1		
7	9	<u>Laboratory Testing</u>				
7.1	9.1	Sample collection and delivery	No.	4		
7.2		Foundation indicator test; including: 1. Natural moisture content 2. Sieve and Hydrometer analysis 3. Atterberg limits	No.	32		
7.3		Maximum Dry Density and OMC (Mod. AASTHO effort)	No.	10		
7.4		California Bearing Ratio (soaked/neat/untreated)	No.	10		
7.5	9.2	<u>Shear box</u>				
7.5.1		Remoulding soil (drained)	No.	11		
7.5.2		Rock discontinuity	No.	11		
7.6		UCS and E on rock samples	No.	11		
7.7		Triaxial on rock core	No.	11		
7.8		<u>Triaxial test</u>				
7.8.1		Consolidated undrained	No.	5		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
7.8.2		Consolidated drained	No.	5		
8	10	<u>Data Records</u>				
8.1	10.1	Field and laboratory test results	Sum	1		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
SCOPE A.2: GEOTECHNICAL INVESTIGATION – ADDITIONAL ADMINISTRATIVE FACILITIES AND OFFICE CONSOLIDATION (PORT OF EAST LONDON – LAND SECTION)						
9	4	<u>Geotechnical Investigation - Underground Services/Structures/Features Detection</u>				
9.1	4.1	Underground services/ structures/features detection; including equipment, set-up, labour and move equipment	Sum	1		
10	5	<u>Geotechnical Investigation - Borehole Drilling</u>				
10.1		<u>Set up and move equipment; including 1,5m deep inspection pit where required</u>				
10.1.1	5.1	Vertical drilling	No.	9		
10.1.2		Inclined drilling	No.	4		
10.2		<u>Washboring (N size); including temporary casings</u>				
10.2.1	5.2	Vertical drilling	m	90		
10.2.2		Inclined drilling	m	60		
10.3	5.3	<u>Rotary core drilling (N-size, NWD4) through soft and hard rock, gravels, boulders, obstructions and concrete rubble; including temporary casings</u>				

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
10.3.1		Vertical drilling	m	90		
10.3.2		Inclined drilling	m	60		
10.4	5.4	Undisturbed sampling (Shelby tubes)	No.	20		
10.5	5.5	Standard Penetration Test (at 1,0m intervals)	No.	90		
10.6	5.6	Preparation of core samples for laboratory testing	No.	26		
10.7	5.7	Supply and install of 25mm ID piezometers; including 2 measurements	m	180		
10.8	5.8	Core boxes (for N-size core and SPT samples)	No.	43		
10.9	5.9	Core photography	No.	13		
10.10	5.10	Backfill boreholes with cement/bentonite grout	m	300		
10.11	5.11	Core orientation	No.	20		
11	6	<u>Geotechnical Investigation – Test Pitting and DCP Testing</u>				
		TLB excavated test pits; including:				
11.1	6.1	1. Provision of a Tractor-mounted loader backhoe (TLB)	Days	10		
		2. All Work required to access the test pitting positions as				

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
11.2	6.2	well as minor bush clearing (should it be required)	No.	10		
		3. Provision of all associated equipment (e.g. drip trays), maintenance, repairs and fuel (wet rate) 4. Personnel necessary to set up/operate the TLB at each position 5. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour 6. Assistance with sampling 7. Removal of excess soil, concrete, waste and debris 8. Backfilling (and compaction in layers using a mechanical compactor where required) 9. Making up the shortfall of material and reinstatement of existing layerworks 10. Sweeping and cleaning the immediate surrounds of the test pit area 11. Accommodation of traffic Hand excavated test pits; including: 1. All Work required to access the test pitting positions as well as minor bush clearing (should it be required) 2. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour 3. Assistance with sampling 4. Removal of excess soil, concrete, waste and debris 5. Backfilling (and compaction in layers using a mechanical compactor where required)				

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
		6. Making up the shortfall of material and reinstatement of existing layerworks 7. Sweeping and cleaning the immediate surrounds of the test pit area 8. Accommodation of traffic (Only where TLB access is restraint, underground services/structures/features are present and/or in the vicinity of existing pavements)				
11.3	6.3	Hand-held in-situ DCP tests (2,0m deep; including tools and labour)	No.	30		
12	7	<u>Surveying</u>				
12.1	7.1	Survey of all boreholes and test pit positions (X,Y,Z) in terms of WGS 84 co-ordinate system, and relative to Mean Sea Level (MSL)	Sum	1		
13	8	<u>Laboratory Testing</u>				
13.1	8.1	Sample collection and delivery	No.	4		
13.2	8.2	Foundation indicator test; including: 1. Natural moisture content 2. Sieve and Hydrometer analysis 3. Atterberg limits	No.	56		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
13.3		Maximum Dry Density and OMC (Mod. AASTHO effort)	No.	30		
13.4		California Bearing Ratio (soaked/heal/untreated)	No.	30		
13.5		<u>Oedometer</u>				
13.5.1		Standard single oedometer	No.	6		
13.5.2		Double oedometer	No.	6		
13.6		<u>Shear box</u>				
13.6.1		Remoulding soil	No.	13		
13.6.2		Rock discontinuity	No.	13		
13.7		UCS and E on rock samples	No.	26		
14	9	<u>Data Records</u>				
14.1	9.1	Field and laboratory test results	Sum	1		
		Total Scopes A.1 and A.2 (excluding VAT)				

SCOPE B: OLD TUG JETTY SHEET PILE REHABILITATION (PORT OF PORT ELIZABETH)

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
1	3	<u>Preliminaries and General - Establishment</u>				
1.1		<u>Fixed Charge Items</u>				
1.1.1		Contractual Requirements	Sum	1		
1.1.2		Establish tools and equipment on Site	Sum	1		
1.1.3		Remove tools and equipment from Site	Sum	1		
1.1.4	3.1	Establish lockable office with 2 desks and 4 chairs on Site	Sum	1		
1.1.5		Remove lockable office with 2 desks and 4 chairs from Site	Sum	1		
1.1.6		Establish chemical toilet on Site	Sum	1		
1.1.7		Remove chemical toilet from Site	Sum	1		
1.2		<u>Time Related Items</u>				
1.2.1	3.2	Supervision for the duration of the Contract	days	50		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
1.2.2		Comply with OSH Act, Transnet Health and Safety Specifications, Environmental, QA Specifications & Document Control Requirements	days	50		
1.2.3		Compliance with Covid 19 health and safety regulations, health care waste management and construction health and safety guidelines	days	50		
1.3		<u>Supply and service 1 chemical toilet</u>				
1.3.1	3.3	Service chemical toilet (Supply included under Fixed Charge Items)	days	50		
2	4	<u>Geotechnical Investigation - Underground Services/Structures/Features Detection</u>				
2.1	4.1	Underground services/ structures/features detection; including equipment, set-up, labour and move equipment	Sum	1		
3	5	<u>Geotechnical Investigation - Borehole Drilling</u>				
3.1		<u>Set up and move equipment</u>				
3.1.1	5.1	Land-based (Drilling equipment and 1,5m deep inspection pit where required)	No.	5		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
3.1.2		Marine-based (Floating platform and drilling equipment)	No.	6		
3.2	5.2	Installation of temporary casings from platform to seabed	m	90		
3.3		<u>Washboring (N size); including temporary casings</u>				
3.3.1	5.3	Land-based	m	100		
3.3.2		Marine-based	m	60		
3.4	5.4	<u>Rotary core drilling (N-size, NWD4) through soft and hard rock, gravels, boulders, obstructions and concrete rubble; including temporary casings</u>				
3.4.1		Land-based	m	125		
3.4.2		Marine-based	m	150		
3.5		<u>Standard Penetration Test (at 1,0m intervals)</u>				
3.5.1	5.5	Land-based	No.	150		
3.5.2		Marine-based	No.	120		
3.6		<u>Undisturbed sampling (Shelby tubes)</u>				
3.6.1	5.6	Land-based	No.	10		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
3.6.2		Marine-based	No.	12		
3.7	5.7	Preparation of core samples for laboratory testing	No.	22		
3.8	5.8	Supply and install of 25mm ID piezometers; including 2 measurements	m	225		
3.9	5.9	Core boxes (for N-size core and SPT samples)	No.	60		
3.10	5.10	Core photography	No.	11		
3.11	5.11	Backfill boreholes with cement/bentonite grout	m	225		
3.12	5.12	Installation of permanent PVC casings in land-based boreholes to prevent loss of backfill material to voids	m	225		
3.13	5.13	Standing time for drilling rig and platform	h	10		
4	6	<u>Geotechnical Investigation – Test Pitting and DCP Testing</u>				
4.1	6.1	Hand excavated test pits; including: 1. All Work required to access the test pitting positions as well as minor bush clearing (should it be required) 2. All tools (e.g. saw cuts, paving breakers, shovels, etc.) and labour 3. Assistance with sampling	No.	10		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
		4. Removal of excess soil, concrete, waste and debris 5. Backfilling (and compaction in layers using a mechanical compactor where required) 6. Making up the shortfall of material and reinstatement of existing layerworks 7. Sweeping and cleaning the immediate surrounds of the test pit area 8. Accommodation of traffic				
4.2	6.2	Hand-held in-situ DCP tests (1,0m deep; including tools and labour)	No.	20		
5	7	<u>Surveying</u>				
5.1		<u>Survey of all boreholes, test pit and DPSH test positions (X,Y,Z) in terms of WGS 84 co-ordinate system, and relative to Chart Datum (CD)</u>				
	7.1					
5.1.1		Land-based boreholes and test pits	Sum	1		
5.1.2		Marine-based boreholes	Sum	1		
6	8	<u>Laboratory Testing</u>				
6.1	8.1	Sample collection and delivery	No.	5		
6.2	8.2	Foundation indicator test; including:	No.	42		
		1. Natural moisture content				

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
		2. Sieve and Hydrometer analysis				
		3. Atterberg limits				
6.3		Maximum Dry Density and OMC (Mod. AASTHO effort)	No.	20		
6.4		California Bearing Ratio (soaked/neat/untreated)	No.	20		
6.5		Dry bulk density	No.	22		
6.6		Specific Gravity	No.	22		
6.7		Shear box (remoulded soil)	No.	11		
6.8		UCS and E on rock samples	No.	22		
6.9		<u>Triaxial test</u>				
6.9.1		Consolidated undrained	No.	3		
6.9.2		Consolidated drained	No.	3		
6.10		Mineralogy analysis	No.	11		
6.11		Angularity/roundness examination	No.	11		
6.12		Carbonate content determination	No.	11		
6.13		Organic content determination	No.	11		
6.14		Durability test	No.	11		

<u>Item no.</u>	<u>Pmt Ref (C2.1)</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
7	9	<u>Data Records</u>				
7.1	9.1	Field and laboratory test results	Sum	1		
		Total Scope B (excluding VAT)				

SCOPE OF WORK FOR A GEOTECHNICAL INVESTIGATION

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Glossary

The definitions listed below apply to this document.

Abbreviations	Definition
ABSM	Algoa Bay Sailing Marina
ASTM	American Society for Testing and Materials
BOQ	Bill of Quantities
BS	British Standard
BBBEE	Broad Based Black Economic Empowerment
CBR	California Bearing Ratio
CTC	Central Train Control
CSHEO	Certified Safety, Health and Environmental Official
CD	Chart Datum
COIDA	Compensation for Occupational Injuries and Diseases Act
CAD	Computer Aided Design
CEMP	Construction Environmental Management Plan
CM	Construction Manager
CDS	Contractor Documentation Schedule
CIRP	Contractor's Industrial Relations Practitioner
CP	Contractor's Planner
CPM	Critical Path Method
CV	Curriculum Vitae
DOT	Department of Transport
DCP	Dynamic Cone Penetrometer
DPSH	Dynamic Probe (Super Heavy)
ECC	Engineering and Construction Contract
EMP	Environmental Management Plan
FBS	Facility Breakdown Structure
FEL	Front End Loading
FEL1	Front End Loading: Conceptual Study
FEL4	Front End Loading: Execution and Commissioning Phase
FEL3	Front End Loading: Feasibility Study
FEL2	Front End Loading: Pre-feasibility Study
H&S	Health and Safety

Abbreviations	Definition
ISO	International Standards Organization
LWOST	Low Water of Ordinary Spring Tide
MHWS	Mean High Water Spring
MLWS	Mean Low Water Spring
MSL	Mean Sea Level
Mod. AASHTO	Modified American Association of State Highway and Transportation Officials
MPT	Multi-Purpose Terminal
NEMA	National Environmental Management Act
NMC	Natural Moisture Content
NEC3	New Engineering Contract
OHS	Occupational Health and Safety
OMC	Optimum Moisture Content
ORS	Owner Requirements Specification
PPE	Personal Protective Equipment
PVC	Polyvinyl Chloride
PCI	Principled Controlled Insurance
PSCM	Procurement and Supply Chain Management
PPM	Procurement Procedure Manual
PES	Project Environmental Specification
PIRP	Project Industrial Relations Policy
PM	Project Manager
PQP	Project Quality Plan
PFMA	Public Finance Management Act
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Procedure
SHEQ	Safety, Health, Environment and Quality (Management System)
SAICE	South African Institution Of Civil Engineering
SAMSA	South African Maritime Safety Authority
SANAS	South African National Accreditation System
SANRAL	South African National Roads Agency SOC Ltd
SES	Standard Environmental Specification

Abbreviations	Definition
SPT	Standard Penetration Test
TMH	Technical Methods for Highways
TLB	Tractor-mounted Loader Backhoe
TFR	Transnet Freight Rail
TNPA	Transnet National Ports Authority
USC and E	Unconfined Compressive Strength and Modulus of Elasticity
VAT	Value-Added Tax
WBS	Work Breakdown Structure
WGS	World Geodetic System

C3.1: THE SCOPE

SCOPE A.1: REHABILITATION OF QUAY WALL 3

(PORT OF EAST LONDON - MARINE SECTION)

All Works are to comply with:

- Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act (Act 85 of 1993).
- All relevant Transnet policies.

1 Executive Overview

Quay 3 (or G Berth) is situated on the East Bank Multi-Purpose Terminal (MPT) in the Port of East London. The quay wall is 378m long (from bollard 39 to 59) and has a draft of -9.8mCD (Chart Datum). The mass concrete gravity quay was constructed in the 1920's. The ferry landing is situated at the west end of Quay No.3 and has the same draft as the quay wall. The landing comprises a sheet pile wall and dates to the early 1900's. The quay has historically been used for berthing and offloading general cargo vessels. During routine maintenance investigations over the years, it became apparent that the quay was deteriorating and that prompted Transnet National Ports Authority (TNPA) to request for a structural assessment to be done. The structural assessment done by PDRW during an FEL2-study analyses reviews various options of replacing or rehabilitating the Quay Wall 3. Refer to the Site Plan included in Annexure A.

The *Scope* also involves the re-instatement of railway and cargo lines. Consequently, the re-instatement of the quay wall surface bed is required.

The Engineering Department (Geotechnical and Pavement Office) of Transnet Freight Rail (TFR) has been requested to conduct a geotechnical investigation for the rehabilitation/replacement of the wall. The purpose of the geotechnical investigation is to assess the geotechnical conditions for the proposed rehabilitation of the quay wall in the Port of East London.

The *Scope* also includes the investigation of additional marine infrastructure, were future upgrades are anticipated. These include the following;

- Revetment 2.
- Quay Wall 4.

2 *Employer's Objectives*

The objective of the *Employer* is to obtain reliable and accurate information from the samples recovered from the test pits and boreholes, in order to provide detailed geotechnical information for the rehabilitation/replacement of Quay Wall 3 and the future upgrades of Quay Wall 4 and Revetment 2.

The *Contractor* is required to provide the geotechnical investigation services (i.e. test pitting, borehole drilling, in-situ testing, sampling and laboratory testing) to assist the *Employer's* Geotechnical Engineer to carry out a geotechnical investigation of the ground conditions underlying the Site.

A total of **eleven (11) boreholes** are envisaged, of which five (5) will be land-based and six (6) will be water-based. The water-based boreholes shall be drilled from a floating barge/platform on the water using suitable anchorage to secure the barge/platform in a surveyed position.

Washbore drilling with Standard Penetration Tests (SPTs) will be required in the upper unconsolidated soil strata. Undisturbed samples will be taken if the soil conditions permit. Rotary core drilling will be required to advance the boreholes through potentially variable surficial fill/rubble, tertiary -, lagoonal - and estuarine deposits (gravels/boulders, sands, silts and clays) underlain by bedrock (shales, hornfels and dolerite) strata.

Standpipe piezometers shall be installed in selected land-based boreholes.

A photographic record of the core boxes, containing the drilled samples, shall be kept and included in the *Contractor's* Data Pack(s) together with the other required data and records.

Dynamic Probe (Super Heavy) (DPSH) tests will be required at selected locations, of which **four (4)** locations will be land-based and **five (5)** locations will be water-based. The water-based DPSH tests shall be performed from the floating barge/platform.

Excavation of approximately **five (5) test pits**, some hand excavated and some using a tractor-mounted loader backhoe (TLB), will take place over an anticipated period of **five (5) days** (in conjunction with the drilling).

The positions (in terms of the WGS 84 co-ordinate system) and levels (relative to Chart Datum level) of the boreholes, test pits and DPSH tests shall be determined by surveying methods.

Samples selected by the *Supervisor*, whilst logging the borehole cores/profiling the test pits, shall be prepared by the *Contractor* and transported to the laboratory for laboratory testing purposes. Laboratory testing of these samples is included in this *Contract*. An additional **four (4) weeks** for completion of the laboratory testing shall be permitted, after submission of the final laboratory instructions and samples.

Fulltime supervision of the *Contractor* shall be provided by the *Supervisor* in order to, amongst others:

- Assist with logistics regarding shipping movements.
- Confirm the positions of boreholes, test pits and DPSH tests.
- Determine the depths where tests are to be carried out in the boreholes, test pits and DPSH test holes.
- Instruct where samples are to be taken.
- Specify which tests are to be carried out on which samples.
- Log the borehole cores and profile the test pits.

The geotechnical investigation is anticipated to span over a period of **eight (8) weeks**, using **two (2) drilling rigs**, including construction of the floating barge/platform, inspections and certification.

The Proposed Site Plan included in **Annexure A** provides an indication of the anticipated borehole, test pit and DPSH tests positions. The *Supervisor* can provide alternative positions for boreholes, test pits and DPSH tests during the course of the geotechnical investigation as required/deemed necessary.

3 Detailed General Scope of ECC Service Provider

3.1 Geotechnical Investigation Services

This sections details the Work that the *Contractor* is expected to provide for the geotechnical investigation in the Port of East London (Quay Wall 3 Rehabilitation).

Boreholes will be drilled both on land and over water (approximately 4m offshore from the quay walls/revetment) from a floating barge/platform. The *Contractor* shall submit a comprehensive list of plant intended for use during this *Contract*. It is anticipated that a minimum of **two (2) drilling rigs, one (1) for the land-based and one (1) for the water-based drilling, a floating barge/platform and one (1) TLB** will be required for the *Contract*. The same drilling, in-situ testing and sampling specifications will apply to the boreholes, irrespective of the borehole location (land-based or water-based).

Additional equipment for test pitting will be required, e.g. paving breakers and saw cuts.

Equipment for performance of Dynamic Probe (Super Heavy) (DPSH) tests will also be required.

The *Contractor* shall establish on Site, all facilities, plant and equipment necessary to undertake the Works, including establishment on Site of such drilling rigs, TLB, DPSH test apparatus, all associated equipment as well as the floating barge/platform that is necessary to execute the Works.

The *Contractor* shall ensure that this plant and equipment are in satisfactory mechanical condition for Completion of the Works in the specified period. No additional payment will be made for the establishment of additional equipment.

Although there is no present priority for borehole/test pit/DPSH test sequence, this may change during the course of the *Contract*. The *Supervisor* will instruct the *Contractor* of any priorities should they arise.

3.1.1 Underground Services/Structures/Features Detection

Prior to the drilling of boreholes (land-based)/excavation of any test pits/performance of DPSH tests at specified locations, an indication of the presence of exiting underground services/ structures/features needs to be obtained at the proposed locations in order to ensure that existing services/structures/features are not affected or damaged during the geotechnical investigation.

The *Contractor* shall provide all equipment, materials, preparation and personnel on Site required for the detection of underground services/structures/features. These shall be available on a continuous daily basis (for a standard 9-hour working day) until the geotechnical investigation has been completed.

The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one (1) year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

3.1.2 Floating Barge/Platform

The *Contractor* shall supply a suitable floating barge/platform for the drilling of the boreholes/ performance of DPSH tests on the water and anchorage to keep the barge/platform in position at all times. The barge/platform shall at least be of minimum dimensions 6m x 6m working area on top of the water.

The *Contractor* shall mark the positions of all the anchor lines and anchors in a very visible manner by using large orange, floatable markers and lights above the water for the duration of the *Contract* (day and night, including weekends and any/all pay weekend breaks).

Tenderers must familiarise themselves with and meet all the watercraft requirements of the Department of Transport (DOT), South African Maritime Safety Authority (SAMSA) and the Port.

The *Contractor* shall be responsible for complying with Government Gazette, dated 15 April 2002, regarding water environments. The *Contractor* shall ensure that where Work is done over or in close proximity to water, appropriate provisional measures shall be made for:

- Preventing workers from falling into water from the floating barge/platform.
- Ensuring that where a worker is exposed to the risk of drowning by falling into the water, a life jacket is provided and worn by the workers and a method of rescue is available from the floating barge/platform.
- All safety, lighting and equipment to be used on the water shall comply with the requirements regarding watercraft. All safety, lighting, anchor markers, etc. features and/or equipment required must be supplied and maintained for the duration of the *Contract* by the *Contractor* and must be included in the rates tendered.

The *Contractor* shall be responsible for the overall maintenance, safety, training and operating of the drilling crew on the barge/platform.

The *Contractor* shall be responsible for the moving of the barge/platform between set-up positions. No assistance from either the *Supervisor* or the Port authorities will be given in this regard, except with the co-ordination of shipping movements. The *Contractor* shall be responsible for obtaining permission from Port Control requesting permission; copies of all correspondence, i.e. requests and permissions shall be submitted to the *Supervisor* prior to setting-up on a hole and included in the daily records.

A service boat, in a seaworthy condition and meeting the applicable requirements with respect to watercraft, shall be present at all times and shall transport the *Supervisor* to and from the drilling Site as and when required to do so.

The following safety items must be included in the Health and Safety (H&S) plan for the water-based component of the Works:

- All personnel to wear life jackets in addition to the normal Personal Protective Equipment (PPE), i.e. hard hats, reflective vests, safety boots, safety gloves, safety glasses, ear plugs, etc.
- The *Contractor* shall provide a certificate of proof from the DOT and SAMSA regarding the watercraft, equipment and floating barge/platform approval of seaworthiness/fitness before setting up on the first borehole/DPSH test position.
- A means of communication, for example a mobile telephone, must be on the floating barge/platform at all times.
- When towing the barge into position, all towing lines must be kept clear. Drill rods, casings and drilling/DPSH test equipment shall be securely stowed.
- Housekeeping is critical:
 - Drill rods, DPSH test equipment and casings to be stacked in racks.
 - Decks to be clear of ropes, lines, etc.
 - All rescue equipment shall be neatly stowed and ready for use during an emergency.

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- Lighting of floating barge/platform and the anchor lines.

3.1.3 Borehole Drilling

The drilling and associated activities shall be carried out in accordance with Standard Specifications for Subsurface Investigations (SANRAL, 2010), and where not covered in the SANRAL Specification, in accordance with British Standard (BS) 5930:1999 Code of Practice for Site Investigations.

A list of preliminary/proposed co-ordinates might be provided by the *Supervisor* in order for the *Contractor's* surveyor to set out the drilling positions. Should the preliminary/proposed co-ordinates not be provided, the *Supervisor* will set out the positions of the boreholes on Site. Where access to a particular position is not possible, the *Supervisor* will give an alternative position on Site. After completion of the setting out, the position (WGS 84 co-ordinate system) and elevation (relative to Chart Datum) of the borehole collar (land-based boreholes) and seabed (water-based boreholes) will be recorded by the surveyor. The position (WGS 84 co-ordinate system) and elevation (Z) of the boreholes, as determined by the surveyor, shall be provided by the *Contractor* to the *Supervisor* within one (1) week. The list (X, Y and Z) shall be typed and signed by the registered surveyor, and presented with the Company letterhead. A position accuracy of 0,5m and level accuracy of 0,1m is required for the land-based boreholes, and 2m and 0,1m respectively for the water-based boreholes.

N-size boreholes are to be drilled vertically. The termination conditions for the boreholes will be determined on Site by the *Supervisor*. The maximum depth/length of boreholes is expected to be not greater than 40m (measured from ground level or the floating barge/platform).

Washbore drilling methods will be used from surface or seabed level to depths where refusal occurs. SPTs, at 1,0m depth intervals and commencing at 0m depth, will supplement the washbore drilling. Below washbore/SPT refusal, NWD4 rotary drilling will follow on through the underlying gravels and boulders, and the bedrock (shales, hornfels and dolerite) strata.

For the purposes of this *Contract*, gravels and boulders are defined as hard aggregate having an Unconfined Compressive Strength (UCS) of greater than 25MPa, average typical dimension of between 50mm and 300mm, and which moves during drilling (resulting in difficult drilling conditions and slow progress).

The drilling shall be carried out using rotary "mud" drilling techniques to minimize disturbance of the subsurface materials. Any drilling muds or additives used by the *Contractor* are to be approved by the *Supervisor* prior to their use, for environmental reasons.

Washboring techniques using open-ended pipes or downward facing water jets shall not be permitted. Only biodegradable drilling aids shall be employed. The *Contractor* is required to produce documentary proof of this fact prior to commencing any drilling. The use of drilling aids in any borehole shall specifically be noted on the Daily Site Diary. Drilling aids shall be properly disposed of after use, to the satisfaction of the *Supervisor*.

N-size diamond drilling is required in competent soils (if encountered), the gravel/boulder layers and the rock. Such drilling shall be by means of NXM, NWD4 or similar sized core barrels.

In boring through permeable materials, the *Contractor* shall avoid any unnecessary disturbance to the material and shall ensure that the drilling fluid in the hole is maintained slightly above the water table.

The drilling rods, core barrel and any close fitting drilling or sampling tools shall be withdrawn slowly to avoid suction pressures arising in the borehole. Drilling fluid shall be added wherever necessary to maintain the required level of drilling fluid in the hole during rod pulling operations.

Only proprietary core barrels shall be used, unless otherwise approved by the *Supervisor*. All accessories and spare parts shall be as supplied or recommended by the manufacturer. Sufficient spares for core barrels, accessories and core bits shall be available for use on Site without causing any delay to drilling operations. The condition of the core bit in use shall be carefully monitored and if any damage occurs, such as breaking of teeth, it shall be replaced immediately.

The use of casings (temporary) shall be at the discretion of the *Contractor* and are to be used to prevent collapse of the boreholes. When a hole is being cased, the bottom of the casing shall always be maintained at approximately 150mm above the bottom of the boring. The casing shall never be allowed to be in advance of the bottom of the borehole during boring or sampling.

The *Contractor* shall take all necessary measures to support the sides of the hole at all times. Collapse of holes shall be minimised by using appropriate drilling techniques, including maintaining adequate flush quality. Re-drilling through collapsed ground, including gravels and boulders, and any surface damage relating to collapsed ground shall be at the *Contractor's* expense.

Only standard nominal lengths of casings and drill rods shall be used. The mixing of standard nominal imperial and metric lengths shall not be permitted.

Where the soil conditions permit, Shelby Tube samples will be taken.

A record of the observations of the flush returns, including the depth of any sudden colour change, change in material arising in the flush and the flush return shall be included on the *Contractor's* drilling record.

Standpipe piezometers will be installed in selected land-based boreholes. In addition to installation, water table levels will be required to be recorded by the *Contractor*.

Prior to core logging and sampling, which will be carried out by the *Supervisor*, the *Contractor* will be required to photograph the core boxes containing the drilled cores (in addition to SPT and Shelby Tube samples where present).

The samples selected for testing by the *Supervisor* are to be prepared for storage and transportation by the *Contractor*.

The records of the drilling as well as the results of the in-situ field tests and laboratory tests are to be presented in a data file.

All land-based boreholes (which do not have any instrumentation to be installed/after removal of instrumentation) and re-circulation sumps shall be backfilled with a soil-cement-bentonite mixture within one (1) working day of completion of the hole.

The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one (1) year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

People employed on the Site should be sufficiently trained to perform the required tasks. Details of the training and competence of the labourers shall be available on Site. The *Employer* reserves the right to instruct the *Contractor* to replace labourers should dangerous or reckless practices be witnessed.

3.1.4 Shelby Tube Samples

Shelby Tube samples shall be taken in accordance with the standard specifications, at depths as directed by the *Supervisor*.

The largest possible diameter to fit the N-size borehole shall be used. The length of the tube shall be such that a 600mm length sample can be recovered. All tubes to be used shall be to the satisfaction of the *Supervisor*, and after use, may be claimed from the soil testing laboratory by the *Contractor*.

Immediately after removal of the Shelby Tube from the borehole and approval of the sample length has been given by the *Supervisor*, the surfaces of the sample shall be sealed with microcrystalline wax to a thickness of not less than 10mm by the *Contractor*. The wax shall not be boiled during the melting.

The tubes shall be marked top and bottom with the appropriate depths and borehole number, and placed in the core box until photographed, where after the samples will be sent for testing.

3.1.5 Standard Penetration Test (SPT)

The SPTs shall be carried out at 1,0m depth intervals, in accordance with the standard specifications. The samples shall be wrapped in plastic sleeves and placed in the core boxes in the sequence of recovery from the Raymond Spoon. Should the material in the Raymond Spoon sample change, the different soils must be separately wrapped with the depth intervals recorded accordingly. The recovered SPT samples shall be clearly and indelibly marked to define the beginning and end of each test using a strip of wood, hardboard or other suitable material. The top and bottom of each test shall be denoted by the insertion of a wooden block at the appropriate position in the core box, clearly marked with the appropriate depth.

The following information shall be indelibly recorded/printed and placed with the sample in the core box:

- Borehole number.
- Depth range of the sample.
- SPT blow counts.

3.1.6 Point Load Index Test

Where instructed by the *Supervisor*, the *Contractor* shall conduct a Point Load Index test on the rock encountered. The Point Load Index test will be carried about approximately every 2,0m of the core rock sample. The test is to be conducted on a cylindrical rock core in accordance with ASTM Standard Methods D5731.

3.1.7 Core Sample Preparation

Core recovered by rotary diamond drilling shall be sealed in plastic sleeves and stored in core boxes as specified above. A minimum core recovery of 80% will be accepted for coring. Where this is not achieved, the *Contractor* shall recover samples of the matrix material using other suitable techniques.

The *Supervisor* shall select pieces of core for laboratory testing. Samples that are to be tested are to be tightly wrapped in a layer of cling film and then sealed with wax to a thickness of not less than 10mm. The wax shall not be boiled during the melting process. A second layer of cling film and wax shall then be applied, where after a card stating the sample details shall be placed on the sample so that the details are clearly visible before a third layer of cling film is wrapped around the sample.

3.1.8 Standpipe Piezometer

Where instructed by the *Supervisor*, the *Contractor* shall install piezometers in the boreholes (land-based boreholes). All drilling mud shall be flushed from the borehole with water until the water return is clear and to the satisfaction of the *Supervisor*. Due cognisance of the environmental specifications shall be taken for the treatment of the flushing water.

The piezometer is to comprise a 25mm diameter Polyvinyl Chloride (PVC) pipe. The bottom 5m shall be slotted and wrapped in a geofabric sleeve. The entire length of standpipe shall be surrounded by a "gravel pack" comprising clean, coarse sand. The upper 0,5m of the borehole annulus shall be sealed with a cement-bentonite plug. The top of the standpipe is to protrude 100mm above the ground level, and be sealed with a plastic cap.

Water table rest levels are to be recorded approximately twenty-four (24) hours and forty-eight (48) hours after completion of the installation of the piezometer, and the readings included on the driller's log sheet.

Upon completion of the measurements, and at the discretion of the *Supervisor*, the standpipe shall be cut flush with the ground level and sealed with cement-bentonite.

3.1.9 Core Boxes

For the storage of all cores/samples, suitable core boxes made of timber or other approved material capable of storing 7,5m of core each shall be provided by the *Contractor*, in accordance with the standard specifications. The core box shall be of suitably robust construction, and be provided with a bolt-down type lid. Prior to usage, the *Contractor* shall provide the *Supervisor* with a sample of the core boxes for approval.

The core/samples shall be placed in core boxes in book order and shall be clearly and indelibly marked to define the beginning and end of each drill run and any other intermediate depths required by the *Supervisor*. Each line of core/samples in the core box shall be separated from the adjoining line by a rigid strip of wood, hardboard or other suitable material. The top and bottom of each drill run shall be denoted by the insertion of a wooden block at the appropriate position in the core box, clearly marked with the appropriate depth. Any point, at which a known core loss occurred, shall be similarly marked by means of a wooden block. Only core samples from one drill hole shall be placed in any particular core box. Friable material must, if necessary, be placed in a plastic sleeve before being placed in the core box.

The following information shall be indelibly printed on the lid of the box, using a stencil or similar type of lettering device, approved by the *Supervisor*; no free hand writing shall be allowed:

- *Contractor's* name.
- Project name.
- Borehole number.
- Box number and total number of boxes, e.g. "Box 1 of 2".
- Depth range contained in box.

Each core box shall be clearly marked on one long side and both short sides with the borehole number and box number.

3.1.10 Core Photography

Core photography shall be provided for all the boreholes drilled under this *Contract*, in accordance with the standard specifications. Prior to commencing the photography, the *Contractor* shall provide the *Supervisor* with a sample of a photograph for approval.

The core boxes are to be photographed by the *Contractor* prior to the *Supervisor* commencing with the core logging.

The photographs are to form part of the drilling record and are to be included in the Data Pack(s).

3.1.11 Dynamic Probe (Super Heavy) (DPSH) Test

DPSH testing and associated activities shall be carried out in accordance with Standard Specifications for Subsurface Investigations (SANRAL, 2010), and where not covered in the SANRAL Specification, in accordance with British Standard (BS) 5930:1999 Code of Practice for Site Investigations.

A list of preliminary/proposed co-ordinates might be provided by the *Supervisor* in order for the *Contractor's* surveyor to set out the DPSH test positions. Should the preliminary/proposed co-ordinates not be provided, the *Supervisor* will set out the positions of the DPSH tests on Site. Where access to a particular position is not possible, the *Supervisor* will give an alternative position on Site. After completion of the setting out, the position (WGS 84 co-ordinate system) and elevation (relative to Chart Datum) of the DPSH test collar (land-based tests) and seabed (water-based tests) will be recorded by the surveyor. The position (WGS 84 co-ordinate system) and elevation (Z) of the DPSH tests, as determined by the surveyor, shall be provided by the *Contractor* to the *Supervisor* within one (1) week. The list (X, Y and Z) shall be typed and signed by the registered surveyor, and presented with the Company letterhead. A position accuracy of 0,5m and level accuracy of 0,1m is required for the land-based tests, and 2m and 0,1m respectively for the water-based tests.

The following information shall be indelibly recorded:

- DPSH test number.
- Depth range.
- DPSH blow counts.

The records of the DPSH testing and the results of the tests are to be presented in a data file. All results (a copy of the field records and the typed version) are to be presented in an electronic format within one (1) week of completing the fieldwork.

All land-based DPSH tests holes shall be backfilled with a soil-cement-bentonite mixture within one (1) working day of completion of the test.

The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one (1) year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

People employed on the Site should be sufficiently trained to perform the required tasks. Details of the training and competence of the labourers shall be available on Site. The *Employer* reserves the right to instruct the *Contractor* to replace labourers should dangerous or reckless practices be witnessed.

3.1.12 Test Pitting

A list of preliminary/proposed co-ordinates might be provided by the *Supervisor* in order for the *Contractor's* surveyor to set out the test pit positions. Should the preliminary/proposed co-ordinates not be provided, the *Supervisor* will set out the positions of the test pits on Site. Where access to a particular position is not possible, the *Supervisor* will give an alternative position on Site.

The *Contractor* shall provide a TLB on Site for the excavation of test pits. The TLB excavator shall be fitted with a 600mm wide bucket and capable of excavating a test pit to a minimum depth of 2,5m. In addition, a drip tray must be available for refuelling and to contain spillage should any leakages occur.

The TLB shall be available on a continuous daily basis until all test pits have been excavated. In general, the TLB shall be on Site for a standard 9-hour working day. Support (maintenance, repairs, refuelling, etc.) of the TLB shall be provided by the *Contractor*.

Test pits shall be terminated at the maximum depth of the reach of the excavator or as instructed by the *Supervisor* on Site. Test pits shall be terminated at a shallower depth if any of the following occurs:

- Side walls begin to collapse into the test pit thereby causing a Health and Safety risk.
- Excess groundwater inflow is encountered thereby causing running of soil materials into the test pit.
- Obstructions are encountered that cannot be excavated.
- Any services/structures/features are encountered in the test pit.

If the depth of the pit is less than 2m at the time of termination, an alternative position may be instructed by the *Supervisor*.

Upon termination of the test pit, the pit shall be profiled by the *Supervisor*, and sampled by the *Supervisor* with the assistance of the labourer provided. Thereafter, and on the same day, the test pit shall be backfilled with the material excavated from the test pit.

Material shall be placed in approximately 500mm layers and then firmly compacted using a mechanical compactor. All reasonable efforts shall be made to ensure that all excavated material is replaced in the test pit and, where necessary, the reinstated material shall stand slightly proud of the original ground level. If topsoil was present at the test pit, this shall be reinstated at the surface. Where material from different layers has been stockpiled separately, these shall be reinstated in the reverse order in which they were excavated. Where test pits have been excavated through existing pavement layerworks, these shall be reinstated to its original condition.

The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one (1) year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

All reasonable efforts shall be made to ensure pits are excavated and backfilled in one operation.-Where a test pit is to remain open due to unforeseen circumstances, suitable barriers and warning signs shall be placed by the *Contractor*.

The sequence of working shall be such to minimise travel time between test pits so that as many test pits as possible can be excavated in a day. The *Contractor* shall take all reasonable steps to ensure that the labour, tools and equipment (including the TLB) are employed efficiently in excavating and reinstating test pits.

After completion of the test pitting, the position and ground level (X, Y and Z) shall be determined by surveying methods in accordance with the WGS 84 co-ordinate system and Chart Datum. A position accuracy of 1m and level accuracy of 0,1m is required. The *Contractor* is to provide the *Supervisor* with the list of co-ordinates and levels within one (1) week of completion of the test pitting. The list shall be typed and signed by the registered surveyor, and presented with the Company letterhead.

The *Contractor* shall provide a full time, competent, experienced and trained operator for the TLB, as well as trained labour (at least 1 labourer, with a shovel and sample bags) to assist the *Supervisor* with soil sampling from the test pits. Both small (1 to 2kg) and large (two (2) bags per sample, each approximately 25kg) disturbed samples shall be taken by the *Contractor* as directed by the *Supervisor*. Undisturbed samples will be taken by the *Supervisor* and will form part of the compliment of samples to be tested.

All tools (e.g. saw cuts and paving breakers), labour, assistance with sampling, removal of excess soil, concrete, waste and debris, backfilling and compaction in layers using a mechanical compactor, making up the shortfall of material, reinstatement of existing layerworks, sweeping and cleaning the immediate surrounds of the test pit area and accommodation of traffic will be at the *Contractor's* expense.

People employed on the Site should be sufficiently trained to perform the required tasks. Details of the training and competence of the labourers (including the TLB operator) shall be available on Site. The *Employer* reserves the right to instruct the *Contractor* to replace labourers should dangerous or reckless practices be witnessed.

At locations where TLB access is restraint, underground services/structures/features are expected and/or in the vicinity of existing pavements, hand-excavated test pits to a depth of 1,5m will suffice. At least 1 labourer must be provided, with a shovel and sampling bags, to assist the *Supervisor* with sampling the soils from the excavated test pits. All tools (e.g. saw cuts and paving breakers), labour, assistance with sampling, removal of excess soil, concrete, waste and debris, backfilling and compaction in layers using a mechanical compactor, making up the shortfall of material, reinstatement of existing layerworks, sweeping and cleaning the immediate surrounds of the test pit area and accommodation of traffic will be at the *Contractor's* expense.

Dynamic Cone Penetrometer (DCP) Tests will be done at selected test pit positions (after removal of any surfacing and gravel base course layers), from both the existing ground level as well as from a reduced level in the test pit.

The records of the test pitting as well as the results of the in-situ field tests and laboratory tests are to be presented in a data file.

3.1.13 Hand-held Dynamic Cone Penetration (DCP) Testing

DCP tests will be done at selected test pit positions (after removal of any surfacing and gravel base course layers where required), from both the existing ground level as well as from a reduced level in the test pit.

DCP tests shall be in accordance with the South African standardised method, that being an 8kg mass falling through a distance of 575mm, with a 60 degree cone. Tests shall be carried out by competent personnel, at locations selected by the *Supervisor*, to a depth of 2m.

Since the evaluation and analysis of the results will be done by the *Client's* Engineer, only the advance of the cone per every 5 blows of the test is required to be provided, i.e. a typed version of the field records. All results (a copy of the field records and the typed version) are to be presented in an electronic format within one (1) week of completing the fieldwork.

3.1.14 Storage of Samples

The Contractor shall, at the end of each day, transport the samples from the Site to a suitable covered storage shed provided by the *Contractor*.

During temporary storage, all precautions against possible loss or damage (wilful or accidental) as well as damage due to the elements shall be taken.

The temporary store, supplied by the *Contractor*, shall be weatherproof and to the satisfaction of the *Supervisor*. Minimum height between lowest boxes in stacks and floor of the temporary storage shall be 100mm. Transport of these samples to the permanent storage facility must take place at appropriate intervals as directed by the *Supervisor*.

A suitable facility for logging and photography shall be provided by the *Contractor* at the temporary storage area.

3.1.15 Transport of Samples/Cores

Samples and cores shall be transported in such a way so as to preserve the relevant conditions of soil and rock samples that were present after the sample had come out of the drilling barrel/test pit/sampling tool.

3.1.16 Survey

The *Supervisor* shall be responsible for the setting out of the positions of the boreholes, test pits and DPSH tests. The *Contractor* will provide the *Supervisor* with a list of co-ordinates (WGS 84 co-ordinate system) and levels (relative to Chart Datum level) within one (1) week of completion of the last borehole/test pit/DPSH test. The list shall be typed and presented with the Company letterhead.

3.2 Laboratory Testing

The Contractor shall be responsible for the delivery/collection of the samples for laboratory testing, and for the presentation of the laboratory test results in both paper and electronic format.

The Supervisor shall be responsible for the testing instructions for each sample.

All tests must be carried out by a South African National Accreditation System (SANAS) accredited testing laboratory, accredited for "Civil Engineering Testing". In this regard, the *Contractor* shall submit a valid SANAS "Certificate of Accreditation" for "Civil Engineering Testing" together with the "Schedule of Accreditation", or certified copies thereof, to the *Project Manager* for acceptance. Failure to comply with this strict requirement will result in the *Contractor* not being able to proceed with the laboratory testing.

The tests shall be carried out as described in the standard specifications. Where multiple testing methods are presented, the *Contractor* is to inform the *Supervisor* in order that the most suitable test method may be selected so as to ensure consistency across samples and reliable comparison between different material samples.

A brief description of the sample being tested shall be made for every sample being tested and included on the laboratory test report. The laboratory test results are to include all the data that is required in the relevant standard. All results are to be fully typed and any graphs or charts computer generated.

Provision has been made in the *Bill of Quantities* for the samples to be collected from site/delivered to the laboratory at regular intervals during the investigation period. The *Contractor* will be responsible for these logistics.

The laboratory test results are to be made available within **four (4) weeks** of the sample being submitted to the laboratory.

Unused samples and untested samples are to be stored at the laboratory for the duration of the *Contract* defects period.

A list of laboratory tests envisaged is listed below:

- Foundation Indicator test; including:
 - Natural Moisture Content.
 - Sieve and Hydrometer analysis.
 - Atterberg limits.
- Maximum Dry Density and Optimum Moisture Content (Mod. AASTHO effort).
- California Bearing Ratio (soaked/neat/untreated).
- Shear box test:
 - Remoulding soil (drained).
 - Rock discontinuity.
- USC and E on rock samples.
- Triaxial on rock core.
- Triaxial test:
 - Consolidated undrained.
 - Consolidated drained.

3.3 Records

This section relates to the preparation and submission of records of Works during the investigation. The contents of the Data Pack(s) are dealt with under Quality Management.

3.3.1 Daily Site Diaries

Daily progress diaries are to be submitted on a daily basis. These must be on pre-printed pro forma sheets and indicate as a minimum:

- List of equipment on Site, mobilised to Site or demobilised from Site on that day. As a minimum, “equipment” is to include a floating barge/platform, drilling rigs, major items of specialist drilling equipment and the TLB.
- List of staff from the *Contractor* and any *Sub-Contractors* on site and the man-hours worked by each staff member. The list shall include by name the *Contractor's* site representative/ agent, supervisor in charge of the TLB, the floating barge/platform, drilling rig(s), drill rig operators, Safety Officer, Environmental Officer and Quality Assurance (QA) managers. Laboratory technicians, labourers and drilling crew need not be listed by name. Man-hours for staff from *Sub-Contractors* under the control of the *Contractor* such as security staff, surveyors etc. shall also be included.
- List of major Work activities undertaken on that day.
- List of any Health and Safety or environmental incidents occurring on that day.
- List of any delays to the Project occurring on that day.

- List of any significant occurrences during that day.
- Weather conditions, e.g. wind, rain, etc.

The form to be used shall be submitted for approval prior to Commencement of Work. All Daily Diaries shall be submitted as documents in accordance with the approved QA plan.

The Daily Site Diary shall be accepted as a substantial record of the operations on Site and it is in the *Contractor's* interest to ensure that these are as detailed as possible. Claims for extension of time (and any other claims) that the *Contractor* may have will be based on these records. Should the *Contractor* not supply Daily Site Diaries within the stipulated time period, the *Supervisor* shall have the right to instruct the *Contractor* to stop Work with the particular unit of equipment until such time as all the outstanding Daily Site Diaries have been supplied. Additionally, the *Supervisor* has the right to reject any claim from the *Contractor* which cannot be substantiated by Daily Site Diaries in the *Supervisor's* possession.

3.3.2 Site Borehole Records (Driller's Borehole Drilling Logs)

Site borehole records shall be submitted each day and contain details of the borehole drilling and testing Works carried out the previous day. The Site Borehole Records shall contain the following minimum information:

- *Contract* title.
- Borehole number.
- Date.
- Equipment and methods being used.
- Personnel used to drill the hole.
- Details of any services/structures/features encountered.
- Results of all in-situ tests. SPT/DPSH test results shall include blow counts for each test increment.
- List of all samples taken.
- Depth of Shelby Tube samples, including the penetration distance into the soil (in mm) and the length of the sample recovered in the tube (in mm). This shall include all Shelby Tube samples where there is no or low recovery in the tube or where pushing of the sample was unsuccessful.
- Depths and results of the Point Load Index tests.
- The final depth of the hole (or for holes carried out over a number of days, the depth at the end of the day being reported).
- Details of any time spent where the equipment or personnel were not advancing the hole (including stoppages, breakdowns and delays), the reasons therefore and the actual times.
- Any other observations on activities at the hole.
- Details regarding moving between borehole positions and set-up.
- Information on access required.
- Borehole diameter.
- Flush type.
- Method of drilling.
- Casing depth and diameter.
- Observations on the soil and rock material in the hole.
- Depths of any rock fill or boulders drilled through.
- Observations on the groundwater in the hole.
- Observations on flush returns (amount, colour, etc.) during drilling.
- Depths and time taken for each core run.
- Approximate core recovery during rotary coring and the depths of any core loss.
- Details of backfilling of the borehole or instrumentation installed.

- Water table level reading in standpipe piezometers.

3.4 Site Access Limitations

As the Site is located in the Port of East London, specific security, permit and induction requirements are relevant to working on the Site. The details will be covered during the compulsory Tender Clarification Meeting and Site Inspection.

The drilling positions for land-based boreholes/test pit positions/land-based DPSH test positions have drive-on access. The launching arrangements for the support craft servicing of the floating barge/platform will be covered during the compulsory Tender Clarification Meeting and Site Inspection.

Unless otherwise stated by the *Supervisor*, the *Contractor* shall use existing roads in the Port and roads created by the *Contractor* (where applicable). The *Contractor* shall not drive vehicles off established access roads without the specific prior written instruction. Where Sites cannot be accessed by vehicles, it shall be required of the *Contractor* to make alternative arrangements (i.e. carry equipment, etc.).

3.5 Constraints on How the *Contractor* Provides the Works

The position of the *Contractor's* laydown area for plant and equipment, as well as the *Supervisor's* office and latrine(s) will be covered during The Site Inspection. No camping is allowed on the Site.

The *Contractor* will not have the exclusive use of the Site for the duration of the *Contract*. The *Supervisor* will determine the sequence of which boreholes are to be drilled/test pits shall be excavated/DPSH tests shall be performed in consultation with Port Control and based on the *Employer's* requirements and any Site restrictions. Shipping movements will take priority in any and all decisions taken in this regard. Drilling rig movements will be kept to a minimum where possible. Specific requirements for each borehole/test pit/DPSH test will be given on Site by the *Supervisor*.

Normal working hours are Mondays to Fridays, from 07h00 to 17h00. Works will not be permitted during the course of any weekend and public holiday without permission by the *Project Manager*. Permission to work shall be requested in writing at least two (2) weeks before the particular weekend/days. Permission is not necessarily guaranteed and will be dependent on the nature of the Work to be done and availability of the *Supervisor* and other staff.

3.6 Site Services and Facilities

3.6.1 Facilities Provided by the *Employer* for the *Contractor*

Table A.1.1: Facilities provided by the *Employer* for the *Contractor*

Item	Date by which it will be provided
Details related to the <i>Contractor's</i> laydown area for the offices and toilet facilities will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission
Details related to water and electricity will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission

Details related to an area for the construction of the floating barge/platform and launching/mooring of the service craft will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission
Security will be for the <i>Contractor's</i> expense.	<i>Contract</i> Commencement
No As-built drawings are available of any subservices/structures/features, i.e. cables, watermains, etc. The <i>Contractor</i> needs to make provision for a detector of underground services/structures/features.	<i>Contract</i> Commencement

Wherever the *Employer* provides facilities (including, *inter alia*, temporary power, water, waste disposal, telecommunications, etc.) for the *Contractor's* use within the Working Areas and the *Contractor* adapts such facilities for use, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

3.6.2 Facilities Provided by the *Contractor* for the *Project Manager* and *Supervisor*

For the *Client*, the *Contractor* is to provide a lockable office with two (2) desks, four (4) chairs, chemical toilet(s) and suitable facilities for all meetings to be held on Site. No suitable connection to an existing sewerage system is feasible; chemical type toilets or similar shall therefore be used throughout. Separate toilet facilities and offices shall be provided for the *Contractor's* staff and the *Supervisor*.

Toilet facilities of a sufficient number (as indicated in the Project Health and Safety Specification) shall be provided for the *Contractor's* staff by the *Contractor*. Portable toilets shall be provided at all Sites where distances to the laydown area are great and it would be impractical for the *Contractor's* staff to use facilities at the laydown area during the working day. The *Contractor* shall move toilet facilities to new positions as required.

Outside toilets should be provided with locks and doors and should be secured to prevent them from blowing over. The toilets should not be placed in areas susceptible to flooding. The *Contractor* should arrange for regular servicing of toilets and will be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the *Supervisor*.

No connection points for electricity, potable water and landline telephones are available on Site. The *Contractor* makes his own arrangements for the connection of such services to his Work Site, for his use when providing the Works.

The *Contractor* provides the required security measures on Site and in his Working Areas until Completion.

The *Contractor* shall provide, maintain, move to new positions as required and finally remove, proper shaded areas on the Site for eating areas. These shall be designed to be signed off by a Professional Engineer appointed for temporary Works.

The *Contractor* shall provide office accommodation, laboratories, storage facilities, vehicles, office equipment, etc. as required to provide the Works.

Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of equipment, involving, *inter alia*, offices, accommodation, laboratories, materials storage, compound

areas, etc., within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of equipment.

Unless expressly stated as a responsibility of the *Employer*, Site services and facilities, all residual requirements for the provision of facilities and all items of equipment necessary for the *Contractor* to Provide the Works remains the responsibility of the *Contractor*.

3.7 Specifications

The following list of standard specifications (latest edition) is applicable to the Works:

- South South African Institution of Civil Engineering (SAICE): Site Investigations Code of Practice, January 2010.
- South African National Roads Agency (SANRAL) – Standard Specification for Subsurface Investigations, 2010.
- British Standard (BS) 5930 – Code of Practice for Site Investigations.
- Technical Methods for Highways (TMH) 1 – Standard Methods of Testing Road Construction Materials.
- BS 1377 – Methods of test for soils for civil engineering purposes.

3.8 Management Meetings

It is the *Employer's* specific intention that the Parties and their agents use the techniques of partnering to manage the *Contract* by holding meetings designed to pro-actively and jointly manage the administration of the *Contract* with the objective of minimising the adverse effects of risks and surprises for both Parties.

Depending on the size and complexity of the Works, it is probably beneficial for the *Employer* to hold a weekly Risk Register Meeting. This could be used to discuss safety, compensation events, *Sub-Contracting*, overall co-ordination and other matters of a general nature.

Separate meetings for specialist activities such as programming, engineering and design management, may also be warranted.

Regular meetings of a general nature may be convened and chaired by the *Project Manager* or a delegated representative as follows:

Table A.1.2: Management meetings

Title and purpose	Approximate time and interval	Location	Attendance by:
Kick-Off Meeting	Prior to Commencement of Work	Site office or as mutually agreed from time to time	<i>Employer, Contractor</i> (key persons) and <i>Project Manager</i> (appropriate delegates)
<i>Contract</i> Progress Meeting	Fortnightly	Site office or as mutually agreed from time to time	<i>Employer, Contractor</i> (key persons) and <i>Project Manager</i> (appropriate delegates)

Title and purpose	Approximate time and interval	Location	Attendance by:
Risk Register and Compensation Events	Weekly	Site office or as mutually agreed from time to time	<i>Project Manager</i> (and appropriate delegates), <i>Supervisor</i> (and appropriate delegates) and <i>Contractor</i> (appropriate key persons)
Monthly SHE Meeting	Monthly	Site office or as mutually agreed from time to time	<i>Employer, Project Manager</i> (and appropriate delegates), <i>Contractor</i> (line management, Site Supervisor, Safety Officer, Environmental Officer and safety reps)
Safety Visible Felt Leadership Walkabout	Weekly	On Site	<i>Project Manager</i> (and appropriate delegates) and <i>Contractor</i> (appropriate key persons)
Safety Committee Meeting	Every second month	Site office or as mutually agreed from time to time	<i>Employer, Contractor</i> (key persons) and <i>Project Manager</i> (appropriate delegates)

Meetings of a specialist nature may be convened as specified elsewhere in this *Works Information* or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the Works. Records of these meetings shall be submitted to the *Project Manager* by the person convening the meeting within five (5) days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the *Contract* as these shall be done separately by the person identified in the *Conditions of Contract* to carry out such actions or instructions.

The *Contractor* will provide suitable facilities for all meetings to be held on Site.

The *Contractor* attends Management Meetings at the *Project Manager's* request. At these meetings the *Contractor* presents all relevant data including safety, health and environmental issues, progress reports, Quality Plans, *Sub-Contractor* management reports (as may be required).

3.9 Planning and Programming

A programme is required to be submitted with the Tender submission, and thereafter in accordance with the intervals prescribed in the NEC *Contract* documentation.

After *Contract* award, the *Contractor* shall be required to submit a fully Integrated Programme for Acceptance, as Project baseline, by the *Project Manager*.

The methodology envisaged in creation of the programme should take into account, but is not limited to, the following:

- All planning is done based on the Critical Path Method (CPM). The programme shows the critical path clearly.
- The programme layout takes into account the approved Work Breakdown Structure (WBS), reflecting the manner in which the services are to be performed and how control data are to be summarised, reported and monitored.
- Time analysis:
 - Manipulation of 'lags', 'overlaps', 'leads', 'relations' or 'dummies' to cause the float to remain constant when updates are performed, is not acceptable.
- Planning networks:
 - The *Contractor* provides the program logic in network format, together with a total float report for acceptance by the *Employer*. The calendar(s) used is/are based on agreed working hours per day and not exceeding agreed hours per week. Any changes to this are submitted to the *Employer* for acceptance.
- The *Contractor's* program shall include, but not be limited to, the following in compliance with the *Contract* requirements:
 - The days of working per week, shifts per working days and holidays.
 - Where multiple calendars are used, this information shall be provided for each of the calendars, accompanied by a schedule indicating the calendar applicable to each activity.
 - A native document to be submitted with explains the development of the Project schedule e.g. risks, schedule opportunities, assumptions, etc.

The *Contractor* shall plan and provide both integrated programmes and contractually compliant programmes, including Project s-curves throughout the Project development and execution.

The software (MS Projects) used in developing the programmes shall be compatible with the Primavera P6 version planning tool. The *Contractor* is required to familiarize them with the detail required at the various stages of the Project to ensure timeous and complete reporting.

In compliance with the Project Management and Reporting requirements, the *Contractor* shall adhere to the following submittal and reporting requirements during the life of the Project:

- Monthly overall Project schedule, reflecting the Project baseline; current progress, performance and recovery proposals for delayed activities; two (2) week look-ahead schedule with forecast plans against future milestones.
- S-curve report.
- Bi-weekly Project schedule update, reflecting Project baseline of which the *Employer* may request the *Contractor* to issue this report on a weekly basis (depending on the criticality of the Project).
- Critical path schedule, showing current Project critical path on monthly and bi-weekly basis.
- Project milestone schedule with major Project milestones and *Employer* key dates on bi-weekly and monthly reporting cycles; this should include baseline, actual and forecast dates.

3.10 Contract Management

The form of *Contract* to be administered is NEC (New Engineering Contract) therefore the *Contractor* shall appoint relevant resources with the right qualification to administer the NEC type of *Contract*.

It is the *Employer's* responsibility to set-up, facilitate and chair meetings (e.g. Project Progress Meetings) and to discuss the *Project Manager's* instruction register, early warnings register, compensation events register, dispute register and risk reduction register. It is both the *Employer's* and *Contractor's* responsibility to give an Early Warning by notifying the other as soon as either becomes aware of a possible risk to the Project.

In the event that the *Contractor* sub-contracts the other Party in completing portions of the Work, the Contractor shall retain responsibility and accountability to the *Employer* as if the Work shall be done by the *Contractor*. This *Contract* applies as if a *Sub-Contractor's* employees and equipment were the *Contractor's*. The *Contractor* shall submit the name of each proposed *Sub-Contractor* to the *Project Manager* for acceptance prior to appointing the *Sub-Contractor*.

Contract related issues shall be in the form of a letter addressed to the *Employer's* representative (*Project Manager*). In the event that there is a *Contract* dispute that cannot be resolved in the meetings, it shall be resolved according to dispute resolution procedure option W1 of the NEC.

Upon Contract award the schedule of *Contract* related meetings shall be agreed by both Parties.

3.11 Cost Management

The *Contractor* shall provide a cost management service that shall include (but not be limited to) budget allocation, forecasting, estimation to Completion, displaying commitments (status and forecasts), actual spends, change, potential change, risk quantification and costing. The entire *Contract* and Project information shall provide the *Employer* with an accurate description of the Project costs at any point in time. This information shall be reviewed and incorporated into other Project systems/tools to improve the accuracy and auditing of reporting.

All cost assessment, evaluation, approvals and rejection shall be counter signed by a Transnet employee with the required delegation before being submitted to Finance for processing. In addition, all claims and certificates shall have supporting evidence attached before progressing by the *Employer*.

The *Contractor* manages all costs applicable to this Project in conjunction with the *Employer's* inputs. All changes or issues resulting in changes to the Price of various *Contracts* (construction *Contracts* and Suppliers purchase orders) managed by the *Contractor* shall be discussed and agreed with the *Employer* prior to implementation.

The Contractor is responsible for the following:

- Submit a detailed cash flow forecast to the *Employer* within fourteen (14) days after *Contract* award aligned to schedule and procurement activities. The cash flow must be updated and submitted monthly when submitting monthly payment application to the *Employer* (if applicable).

3.12 Documentation Control

The *Contractor* provides documentation in accordance with the requirements of the *Contractor* Documentation Submittal Requirements and the *Contractor* Documentation Schedule (CDS) and makes specific reference thereto within his Quality Management System and Quality Procedures.

The *Contractor* Document Submittal Requirements is contained within **Annexure B** (*Contractor* Documentation Submittal Requirements) of the *Works Information*. A standard *Contractor* Documentation 'Starter Kit' will be issued to the *Contractor* upon award and consists of the following:

- Standard Project Drawing Sheet.
- *Contractor* Document Register (DOC-FAT-0002).
- A4 Review Coversheet for Documents (DOC-FAT-0067).
- Document Deliverable Matrix (DOC-FAT-0075).

The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Contractor*.

Each Supplier of documentation and data to the Project is responsible for ensuring that all documentation and data submitted conforms to the Project standards and data Quality requirements in terms of numbering, uniqueness, Quality, accuracy, format, completeness and currency of information. Data not meeting the Project standards and data Quality requirements will be rejected and returned to the *Contractor* for corrective action and resubmission.

Should any change be made to documentation or data, which has already been submitted to the Project, then new or revised documentation or data shall be issued to replace the outdated information.

All drawings supplied shall comply with the Computer Aided Design (CAD) Standards, i.e. ENG-STD-0001 – Annexure C.

The *Contractor* shall ensure that the latest versions of the required application software and a suitable "IT" infrastructure is in place to support the electronic transmission of documentation.

Electronic files submitted to the Project shall be clear of known viruses and extraneous "macros". The Supplier of documentation is required to have, at all times, the latest generation of virus protection software and up-to-date virus definitions.

The *Contractor* shall be responsible for the supply of all Sub-Supplier/*Contractor*/Manufacturer, etc. documentation and data related to their package of Work, and shall ensure that these Sub-Suppliers have the capability to supply the necessary documentation and data in the required time-frame and Quality as outlined in the specified standards prior to awarding sub-orders.

The required number of copies of documentation and data shall be as specified in the *Contractor* Documentation Schedule (CDS) - as a minimum three (3) (1 x original + 2 x hard copies), with the corresponding PDF and native file formats upon final submission.

The *Contractor* shall apply "wet signatures" to the original documentation before scanning the signed original and prior to formal submission to the Project.

Final issues of all documentation shall be supplied to the Project in "wet signature" format along with the associated corresponding electronic native files and PDF renditions.

The *Contractor* shall ensure adequate resources are available to manage and execute the document control function as per the requirements of the Project. The *Contractor* shall ensure that a dedicated Document Controller is available for the Project.

3.13 Procedure for Submission and Acceptance of Contractor's Documents

The *Contractor's* documentation shall be issued to the *Project Manager* under cover of the *Contractor's* Transmittal Note indicating all *Contract* references (i.e. Project Number, *Contract* Number, etc.) as well as the *Contractor's* Project Document Number, Revision Number, Title and chronological listing of transmitted documentation. Formats of *Contractor* data submitted is dependent on the Project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.

The Contractor shall deliver both hard copies and electronic media copies (CD Rom) to the *Project Manager* either at the address stated within the *Contract Data* or at the Project Site office.

All electronic documentation shall be submitted by the *Contractor* in Adobe Acrobat (.pdf) and native file format.

Acceptance of documentation by the *Project Manager* will in no way relieve the *Contractor* of its responsibility for the correctness of information, or conformance with his obligation to provide the Works. This obligation rests solely with the *Contractor*.

After review, a copy of the original reviewed/marked-up drawing/document, with the *Project Manager's* consolidated comments and document status marked on the *Contractor* Review Label, shall be scanned and the copy shall be returned to the *Contractor* under cover of the Project's Transmittal Note for revision or resubmittal as instructed.

The Contractor shall allow the *Project Manager* two (2) weeks (unless otherwise stated and agreed) to review and respond to the *Contractor's* submission of their documentation, i.e. from time of receipt to the time of despatch. However, Work shall proceed without delay in the event of late return of the documentation by the *Project Manager* with prior notification in writing by the *Contractor*.

On receipt of the reviewed documentation, the *Contractor* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within two (2) weeks. Queries regarding comments/changes should be addressed with the *Project Manager* prior to resubmittal.

Any resubmittals, which have not included the changes/comments identified, will be returned to the *Contractor* to be corrected. The *Contractor* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within two (2) working days of receipt of the marked-up document.

In undertaking the Works (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Documentation Submittal Requirements Standard included in Annexure B (Refer DOC-STD-0001 – Rev03).

3.14 As-built Drawings, Operating Manuals and Data Packs

The *Contractor* provides the following:

- As-built/Final Documentation
 - In undertaking the Works (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Documentation Submittal Requirements Standard included in Annexure B (Refer DOC-STD-0001 – Rev03).
 - All As-built information to be signed off by *Contractor's* responsible Pr. Eng. before issue to the *Employer*.

- Installation, Maintenance and Operating Manuals and Data Books
 - The *Contractor* provides manuals in an A4 hard covered, white, grease and waterproof binder, using 2 ring type binders. The manuals are well indexed and user friendly and include a summarized Table of Contents.
 - Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.
 - The *Contractor* submits the draft Table of Contents to the *Project Manager* for acceptance prior to the compilation and official submittal of the manuals.
 - The originals of all brochures shall be issued to the *Project Manager*. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number shall be stated, which is best achieved by introducing a separate index page, which cross-references the specific item to a tag number.
 - The address, phone numbers, fax numbers and reference numbers of all *Sub-Contractors* are provided.
 - Where manuals include drawings that still need to be revised to “As-built” status, and such manuals are required prior to “As-built” status, the manual will not be considered to be in its final form until the “As-built” version of each such drawing has been incorporated.
 - The required number of copies of the manual(s) shall be as specified by the *Project Manager* and submitted per type or model number of equipment included in the *Contract*, or as specified by the *Project Manager*.
 - A typical example of what the binder/file(s) shall be marked with on the spine and the front cover is as follows:
 - Project Name.
 - Manual Title, e.g. Installation, Maintenance and Operating Manual.
 - Facility Breakdown Structure (FBS) Number and Title.
 - Manual Numbering (e.g. Volume 1 of 2, etc.).
 - *Contract* Number.
 - *Contractor* Name.
- Unless otherwise stated in the CDS, the required number of copies of all As-built/Final/Data Pack(s) shall be:
 - 3 x hard copies (full size).
 - 3 x CD ROM with Adobe Acrobat (.pdf) and native formats.

3.15 Construction Management

The *Contractor* adheres to the Project Health and Safety Specification.

In addition to his responsibilities under the *Occupational Health and Safety* (OHS) Act, the *Contractor* is responsible for the following:

- Attending Progress Meetings as determined by the *Project Manager* to monitor and report progress.
- Keeping and updating photographic records.
- Preparing and submitting Quality method statement for *Project Manager*’s approval.
- Carrying out fieldwork in an approach that will minimize disruption to other Port activities.

The *Contractor* keeps daily records of his people engaged on the Site and Working Areas (including *Sub-Contractors*) with access to such daily records available for inspection by the *Project Manager* at all reasonable times. Daily records should be agreed per diem with the *Project Manager*’s delegate or agreed representative.

Use of existing provincial roads shall be limited to an absolute minimum and shall not be used by the *Contractor* as haul roads for fieldwork purposes.

The *Contractor* must exercise due care to avoid damage or disruption to existing services/structures/features (*Contractor* to do assessment of adjacent properties before starting with the Works and submit to the *Employer*). The *Contractor* shall be liable for all claims arising out of any damage caused if the *Contractor* fails to exercise the requisite care and attention in carrying out the Works.

Where the *Contractor* encounters existing underground services/existing services cables/pipe trenches/structures/features, the *Contractor* undertakes the following:

- Stop all operation processes and inform the *Supervisor*.

The *Contractor* shall ensure that all his labour and equipment remains within the fenced off allocated fieldwork area.

All staff and labour working on Site must comply with the *Employer's* operational safety requirements and be equipped with all necessary protective clothing, equipment and high visibility apparel whilst on Site and not within 3m of the railway lines.

Equipment used by the *Contractor* in providing the Works shall comply with the General Machinery Regulation 4 of the OHS Act (Act 85 of 1993) and without prejudice to the aforesaid act, comply with the certification requirements of *Employer's* Code of Practice No. 29. Operators of equipment shall be in possession of a valid certificate in terms of this Code of Practice.

No labour accommodation shall be allowed within the Port.

The *Contractor* complies with the Construction Environmental Management Plan (CEMP), Standard Environmental Specification (SES), and Project Environmental Specification (PES) in the execution of the Works.

Publicity and progress photographs:

- The *Contractor* provides a notice board with specific details such as *Employer* title, responsible person in charge, emergency contact numbers as well approved safety documentation such as risk assessment at each active Working Area.
- The *Contractor* provides progress photographs at intervals as requested by the *Project Manager*.
- The *Contractor* does not advertise the *Contract* or the Project to any third Party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Project Manager*.

The *Contractor* shall obtain all the necessary work permits before starting any excavations and hot work, in accordance with Health and Safety procedures.

Where Work is to be carried out on, over, under or adjacent to railway lines or near high voltage equipment:

- All Work on, over, under or adjacent to railway lines and near high voltage equipment shall comply with *Employer* specification E7/1.
- The *Contractor* shall not have sole possession of the Site. The *Contractor* shall co-operate with Others and common users of the Site in regards to Site occupation and access.

The existing railway lines are to be regarded as operational at all times and the fullest collaboration between the *Contractor* and the *Project Manager* is essential with regard to the operations and working of the railway lines.

Notification must be given to the Central Train Control (CTC) every day before any Work commences within 5m of the operational railway lines by adhering to the procedures stipulated in the rules of the route.

Overview of the processes for obtaining occupations, permits and items of operational impact:

- When Work on or near the overhead track equipment, necessitating the isolation and earthing of the high voltage electrical equipment and involves the re-timing or cancellation of electric trains, it shall be arranged in advance and as prescribed in the E7/1 specification. In such a case an occupation of the line and a Work permit is required effecting the operations of Transnet Freight Rail (TFR).
- The *Contractor* is required to submit his formal application for occupations/permits, line-side Work or other operational impacts via the *Project Manager* (or delegate). There may be no communication between the *Contractor* and TFR representatives regarding these items.
- Application from the *Contractor* must include all relevant information, including:
 - Date.
 - Time.
 - Duration.
 - Electrical switching details.
 - Occupation type.
 - Specific limits of Work.
 - Description of the Work to be undertaken.
 - *Contractor* to apply for excavation permit (Identification and detection of existing services will be *Contractor's* responsibility).
- Although the E7/1 specification indicates twenty-one (21) days as the required notification period, two (2) months prior notification is required to allow TFR to follow their prescribed internal process. An official occupation/permit notice shall be issued to the requestor and serves as a prerequisite for the actual permit that shall be executed on the date, as approved.
- In order to be granted the occupation/permit it is necessary for the *Contractor* to demonstrate that there is suitable and sufficient planning in place.

Monitoring:

- All occupations/permits are monitored by the *Project Manager*. *Contractors* are required to submit feedback and confirmation of the working times achieved for all occupations/permits on a weekly basis.

Once the *Contractor's* request has been validated by the *Project Manager*, it is passed to the TFR maintenance department. They shall then process the request and issue the notice not less than one (1) week prior to the proposed date. If a notice request is submitted but later cancelled, a formal notification of the cancellation is required to be submitted.

The *Contractor* shall, on Completion of his Works, completely remove from Site all his equipment, material, foundations and other structures, erected stores and temporary office accommodation (or any other asset belonging to him) and leave the Site in a tidy condition to the satisfaction of the *Project Manager*.

4 Regulatory Requirements

4.1 Health and Safety Requirements

The *Contractor* must prepare and submit for approval a Health and Safety file in terms of the *Employer's* Health and Safety requirements for *Contractors* working on Transnet property. In terms of this file, the successful Tenderer shall be responsible for the implementation of the obligations contained in the Health and Safety file. A copy of the file shall be kept by the *Employer* and be available on Site.

There are requirements of the *Contractor* in terms of Health and Safety. These are described below:

- Legal Appointments and proof of competencies for the Delegated Authority 16(2), Construction Supervisor 8(7), Construction Safety Officer as well as SHE Rep 17(1) and First Aider (at least level 3 trained).
- First Aid Box with all the required contents.
- Valid letter of good standing for the *Contractor*, a copy of WCL2 form and ID copies for all on Site.
- Safety Daily Task Instruction (Safety Talk) to be done daily before Work commences.
- Health and Safety Plan, including COVID-19 management plan for the *Contractor* in line with the *Employer's* Health and Safety Specification.
- Cost Schedule for Health and Safety, including COVID-19 management.
- Organogram of supporting structure (this document must provide all persons appointed in terms of the OHS Act (Act 85 of 1993).
- Risk Assessment with all the activities that shall be performed on Site.
- Method statement for the tasks.
- Safe work procedure for the tasks.
- Proof that issue register system is in place for PPE.
- Valid medical certificates of fitness done by an Occupational Health Practitioner for all on Site.
- Proof of induction training received.
- Section 37(2) mandatory agreement between *Client – Contractor – Sub-Contractors*.
- Proof of competency for the drilling operators and their medical certificates of fitness.
- Proof of service for the TLB, drilling plant and floating barge/platform.
- Proof of TLB, drilling plant and floating barge/platform that is pre-inspected daily before use.
- Proof of alcohol and COVID-19 testing register of all on Site daily done by the trained person.

The areas of investigation are within Transnet property and an induction, which is not expected to be onerous, shall form part of the first day's Work. No Work on Site is permitted until the above documents are approved by the *Employer* and a Site access certificate has been issued by the *Project Manager*.

4.2 Environmental Management

All Work shall be conducted in accordance with the principles of the National Environmental Management Act (NEMA), 1998 (Act no. 107 of 1998) but not limited to other applicable regulations and the accepted environmental good practices. The following documents of the *Works Information* provide the minimum acceptable standards that shall be adhered to:

- Construction Environmental Management Plan (CEMP) – ENV-STD-001 – Rev04.
- Standard Environmental Specification (SES) – ENV-STD-002 – Rev04.
- Declaration of Understanding.
- Transnet Safety, Health, Environment and Quality (SHEQ) Policy Statement.

The *Contractor* shall perform the Works and all fieldwork activities within the Site and Working Areas having due regard for the environment and environmental management practices.

The CEMP provides an integrated approach to environmental management. This approach is designed to guide the appropriate allocation of human resources, assign responsibilities, develop procedures and ensure compliance with regulatory and best practice requirements.

The SES describes the minimum acceptable standard for environmental management for the range of environmental aspects commonly encountered on construction projects and sets environmental objectives and targets, with which the *Contractor* must comply.

The *Contractor* shall, as required by the CEMP, provide activity based environmental method statements for particular planned fieldwork activities at the Site and/or Working Area and/or where requested by the Construction Manager or Environmental Officer.

The *Contractor* shall submit an environmental file to the *Employer* for approval. Details of the environmental file shall be made known post Tender award. No Work on Site shall be permitted until the file is approved.

The *Contractor* shall sign the Declaration of Understanding and the original signed copy must be submitted to the *Employer's* Construction Manager prior to the start of fieldwork.

The *Contractor* shall comply with the specifications of the CEMP and abide with the *Employer's* Construction Manager's instructions regarding the implementation of the CEMP.

During the investigation period, the *Contractor* must comply with the following:

- A copy of the CEMP and SES shall be available on Site, and the *Contractor* shall ensure that all personnel on Site, including *Sub-Contractors*, Suppliers and their staff, are familiar with and understand the specifications contained in the CEMP and SES.
- Where method statements are required during the investigation, the method statement must be submitted to the *Project Environmental Manager* for approval at least fourteen (14) days prior to the proposed commencement of the activity.

The *Contractor* shall clear and clean the Site and Working Areas and ensure that everything not forming part of the Works is removed from the Site and Working Areas and that all re-instatement has taken place in accordance with the CEMP and SES.

4.3 Quality Assurance Requirements

The onus rests entirely on the *Contractor* to produce the Works which shall conform in Quality and accuracy of detail to the requirements of the Transnet – Quality specification “General Quality Requirements for *Contractors* and Suppliers” including Technical Specifications and Drawings. The *Contractor* must, at his own expense, institute a Quality Management System, instruments and equipment to ensure adequate Quality supervision and control of the Works at all times.

The *Contractor* shall submit Project Quality Plan (PQP), Method Statement, Quality Control Plans (QCP's) and Data Pack Index to the *Client* for approval. The *Contractor's* Quality Plan shall include or reference the Quality Plans of *Sub-Contractors* if applicable.

The *Contractor* develops and maintains a comprehensive register of documents that shall be generated throughout the *Contract* for Project deliverables, including all Quality related documents, as part of the *Contract*.

The *Project Manager* indicates those documents required to be submitted for information, review or acceptance and the *Contractor* indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents with the *Project Manager* responding to documents submitted by the *Contractor* for review or acceptance within the period for reply prior to such documents being used by the *Contractor*.

4.4 Risk Management

The *Contractor* to review the potential risk elements as per the ISO 31000 Risk Management standard associated with the Project. The *Contractor* to demonstrate the experience in identifying risk, measure risks, analyse risk, mitigate risk, monitor and control risk, assign risk owner, action plan dates. The documents should:

- Present Project Risk Management Plan.
- Present Project Risk Management Policy and Procedure.
- Present how Project Risk Management shall be implemented/executed in the Project.

Notwithstanding this information, all costs related to risk elements (which are at the *Contractor's* risk) are deemed to be included in the Tenderer's offered total of the Prices.

4.5 Insurance

The insurance that shall be provided by the *Employer* is arranged on a Principled Controlled Insurance (PCI) basis. All Parties of this Project is insured under this portfolio.

The insurance portfolio consists of a Public Liability policy and a Professional Indemnity for design and construction.

The *Contractor* shall maintain its own insurance for plant and equipment, own employee liability (Compensation for Occupational Injuries and Diseases Act, COIDA), motor vehicle insurance and motor vehicle third Party insurance as stated in the *Contract*.

The Insurance procedure manual shall be issued within two (2) weeks after the starting date. This manual shall contain the claim procedure, claim advice form as well as a more detailed description of each policy.

The *Contractor* follows the claims procedure and liaises with the *Employer* and the *Project Manager* when a claim is made and assists in completing the Claims Advice Forms that is contained in the insurance procedure manual.

The *Contractor* shall supply the *Employer* with all required information to substantiate the claim.

The *Contractor* is liable for the deductible of each insurance claim as contained in the Insurance procedure manual. The deductible can change from time to time.

The *Contractor* can purchase any other insurance in addition to the amount of insurance taken out by the *Employer* for the same risk to no cost of the *Employer*.

4.6 *Contractor's* Management, Supervision and Key People

The *Contractor* shall provide an organogram showing his key people and their lines of authority and communication.

5 Procurement

5.1 Code of Conduct

Transnet aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any Supplier dealing with Transnet must understand and support. These are:

- The Transnet Procurement Procedures Manual (PPM).
- Section 217 of the Constitution - the five pillars of Public Procurement and Supply Chain Management (PSCM): fair, equitable, transparent, competitive and cost effective.
- The Public Finance Management Act (PFMA).
- The Broad Based Black Economic Empowerment (BBBEE) Act.
- The Anti-Corruption Act.

This code of conduct has been included in this *Contract* to formally appraise Transnet Suppliers of Transnet's expectations regarding the behaviour and conduct of its Suppliers.

5.2 Prohibition of Bribes, Kickbacks, Unlawful Payments and Other Corrupt Practices

Transnet is in the process of transforming itself into a self-sustaining state owned enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that shall enable this transformation.

- Transnet shall not participate in corrupt practices and therefore expects its Suppliers to act in a similar manner.
- Transnet and its employees shall follow the laws of this country and keep accurate business records that reflect actual transactions with and payments to our Suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, to:
 - Illegally influence their judgment or conduct or to ensure the desired outcome of a sourcing activity.
 - Win or retain business or to influence any act or decision of any decision stakeholders involved in sourcing decisions.
 - Gain an improper advantage.
- There may be times when a Supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our 'Tip-offs Anonymous' hot line to report these acts (0800 003 056).
- Transnet is firmly committed to the ideas of free and competitive enterprise.
 - Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust.
 - Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).
- Transnet's relationship with Suppliers requires us to clearly define requirements, exchange information and share mutual benefits.
- Generally, Suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our Suppliers, we shall not tolerate any illegal activities. These include, but are not limited to:

-
- Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc.).
 - Collusion.
 - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.).
 - Corrupt activities listed above.
 - Harassment, intimidation or other aggressive actions towards Transnet employees.
 - Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the Supplier is expected to participate in an honest and straight forward manner.
 - Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

5.3 Conflicts of Interest

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet, such as:

- Doing business with family members.
- Having a financial interest in another company in our industry.

6 *Sub-Contractor*

The Contractor shall appoint a SANAS accredited testing laboratory, accredited for “Civil Engineering Testing” to perform laboratory tests (refer to Section 3.2).

Surveying activities for setting out borehole/test pit/DPSH test positions may also require the appointment of a registered surveyor.

Sub-Contractor documentation and assessment of *Sub-Contract* Tenders:

- *Contractor* shall ensure that the Quality Assurance, Health and Safety, industrial relations, environmental, documentation control and all other requirements placed on him under this *Contract* are transferred into any *Sub-Contracts*.

Where the Contractor employs a *Sub-Contractor* who performs part of the Works or who supplies plant and materials for incorporation into the Works, which involves a *Sub-Contractor* operating on the Site and/or Working Areas, then the *Contractor* ensures that any such *Sub-Contractor* complies with the CEMP, SES and PES Environmental Management requirements (NEMA and Transnet) as appropriate and that the *Sub-Contract* documentation places back-to-back obligations on the *Sub-Contractor* which reflect the *Contractor's* obligations under the CEMP, SES and PES, all within the *Contractor's* Quality Management System.

Where the *Contractor* employs a *Sub-Contractor* who performs part of the Works or who supplies plant and materials for incorporation into the Works, which involves a *Sub-Contractor* operating on the Site and/or Working Areas, then the *Contractor* ensures that any such *Sub-Contractor* complies with the Project Industrial Relations Policy (PIRP) as appropriate and that the *Sub-Contract* documentation places back-to-back obligations on the *Sub-Contractor* which reflect the *Contractor's* obligations under the PIRP, all within the *Contractor's* Quality Management System.

The *Contractor* shall ensure that the Quality Assurance requirements placed on him under this *Contract* are transferred onto all appointed *Sub-Contractors*.

7 Invoices

All invoices submitted by the Contractor shall be VAT invoices, which shall be accompanied by a daily activity sheet, covering the services together with, where relevant, a brief explanation of the time covered, and full breakdown of expenses to which receipts relate.

The invoice states the following:

- Invoice addressed to Transnet Limited.
- Transnet Limited's VAT No: 4720103177.
- Invoice number.
- The *Contractor's* VAT Number.
- The *Contract* Number.

Invoices are to be delivered to:

N2 Neptune Road
2nd Floor, TNPA Admin Building (Emendi Building)
Port of Ngqura
Port Elizabeth
Attention: The office of the Secretariat: Alphoncina Tau
Email address: Alphoncina.Tau@Transnet.net

The invoice is presented as an original.

ANNEXURE A.1: Proposed Site Plan for Scope A.1

Rehabilitation of Quay Wall 3 (Port of East London, Marine Section)



This is only a proposed site layout. The *Supervisor* can provide alternative positions for boreholes/test pits/DPSH tests during the course of the geotechnical investigation as required/deemed necessary.

SCOPE A.2: ADDITIONAL ADMINISTRATIVE FACILITIES AND OFFICE CONSOLIDATION

(PORT OF EAST LONDON - LAND SECTION)

All Works are to comply with:

- Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act (Act 85 of 1993).
- All relevant Transnet policies.

1 Executive Overview

According to the Owner Requirements Specification (ORS, dated 2017/09/08), Transnet National Ports Authority (TNPA) has an existing staff compliment of approximately 189 staff members. The future staff compliment of the Port is approximately 270 staff members. Currently the Port is already experiencing office accommodation shortage and none of the existing buildings are vacant to resolve this challenge. Various buildings in the Port have been altered to create optimum space by creating open plan offices, etc. Therefore, there is no further alteration opportunities to existing buildings. Additional administration facilities and office accommodation for the Port have become an essential need based on the current and future staff compliment.

The following developments have been proposed:

- A new Office Building located north of the existing Administration Building.
- Lock-up Garages and Workshops located further north on flat land.
- Access roads and parking.

2 *Employer's Objectives*

The objective of the *Employer* is to obtain reliable and accurate information from the samples recovered from the test pits and boreholes, in order to provide detailed geotechnical information for the design of the various elements of the proposed development.

The *Contractor* is required to provide the geotechnical investigation services (i.e. test pitting, borehole drilling, in-situ testing, sampling and laboratory testing) to assist the *Employer's* Geotechnical Engineer to carry out a geotechnical investigation of the ground conditions underlying the Site.

A maximum of **thirteen (13) boreholes** are envisaged, of which up to nine (9) are to be drilled vertically and/or four (4) at inclinations between 60 and 75 degrees to the horizontal. Orientations in the inclined boreholes will be required.

Washbore drilling with Standard Penetration Tests (SPTs) will be required in the upper unconsolidated soil strata. Undisturbed samples will be taken if the soil conditions permit. Rotary core drilling will be required to advance the boreholes through potentially variable surficial fill/rubble, tertiary -, lagoonal - and estuarine deposits (gravels/boulders, sands, silts and clays) underlain by bedrock (shales, hornfels and dolerite) strata.

Standpipe piezometers shall be installed in selected vertical boreholes.

A photographic record of the core boxes, containing the drilled samples, shall be kept and included in the *Contractor's* Data Pack(s) together with the other required data and records.

Excavation of approximately **fourteen (14) test pits**, some hand excavated and some using a tractor-mounted loader backhoe (TLB), will take place over an anticipated period of **ten (10) days** (in conjunction with the drilling).

The positions (in terms of the WGS 84 co-ordinate system) and levels (relative to Mean Sea Level) of the boreholes and test pits shall be determined by surveying methods.

Samples selected by the *Supervisor*, whilst logging the borehole cores/profiling the test pits, shall be prepared by the *Contractor* and transported to the laboratory for laboratory testing purposes. Laboratory testing of these samples is included in this *Contract*. An additional **four (4) weeks** for completion of the laboratory testing shall be permitted, after submission of the final laboratory instructions and samples.

Fulltime supervision of the *Contractor* shall be provided by the *Supervisor* in order to, amongst others:

- Confirm the positions of boreholes and test pits.
- Determine the depths where tests are to be carried out in the boreholes and test pits.
- Instruct where samples are to be taken.
- Specify which tests are to be carried out on which samples.
- Log the borehole cores and profile the test pits.

The geotechnical investigation is anticipated to span over a period of **seven (7) weeks**, using **two (2) drilling rigs**.

The Proposed Site Plan included in Annexure A provides an indication of the anticipated borehole and test pit positions. The *Supervisor* can provide alternative positions for boreholes and test pits during the course of the geotechnical investigation as required/deemed necessary.

3 Detailed General Scope of ECC Service Provider

3.1 Geotechnical Investigation Services

This sections details the Work that the *Contractor* is expected to provide for the geotechnical investigation in the Port of East London (Additional Administrative Facilities and Office Consolidation).

The *Contractor* shall submit a comprehensive list of plant intended for use during this *Contract*. It is anticipated that a minimum of **two (2) drilling rigs** and **one (1) TLB** will be required for the *Contract*.

Additional equipment for test pitting will also be required, e.g. paving breakers and saw cuts.

The *Contractor* shall establish on Site, all facilities, plant and equipment necessary to undertake the Works, including establishment on Site of such drilling rigs, TLB and all associated equipment that is necessary to execute the Works.

The *Contractor* shall ensure that this plant and equipment are in satisfactory mechanical condition for Completion of the Works in the specified period. No additional payment will be made for the establishment of additional equipment.

Although there is no present priority for borehole/test pit sequence, this may change during the course of the *Contract*. The *Supervisor* will instruct the *Contractor* of any priorities should they arise.

3.1.1 Underground Services/Structures/Features Detection

Prior to the drilling of boreholes/excavation of any test pits at specified locations, an indication of the presence of exiting underground services/structures/features needs to be obtained at the proposed locations in order to ensure that existing services/structures/features are not affected or damaged during the geotechnical investigation.

The *Contractor* shall provide all equipment, materials, preparation and personnel on Site required for the detection of underground services/structures/features. These shall be available on a continuous daily basis (for a standard 9-hour working day) until the geotechnical investigation has been completed.

The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one (1) year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

3.1.2 Borehole Drilling

The drilling and associated activities shall be carried out in accordance with Standard Specifications for Subsurface Investigations (SANRAL, 2010), and where not covered in the SANRAL Specification, in accordance with British Standard (BS) 5930:1999 Code of Practice for Site Investigations.

A list of preliminary/proposed co-ordinates might be provided by the *Supervisor* in order for the *Contractor's* surveyor to set out the drilling positions. Should the preliminary/proposed co-ordinates not be provided, the *Supervisor* will set out the positions of the boreholes on Site. Where access to a particular position is not possible, the *Supervisor* will give an alternative position on Site. After completion of the setting out, the position (WGS 84 co-ordinate system) and ground level relative to Mean Seal Level (Z) of the boreholes will be recorded by the surveyor. The position (WGS 84 co-ordinate system) and elevation (Z) of the boreholes, as determined by the surveyor, shall be provided by the *Contractor* to the *Supervisor* within one (1) week. The list (X, Y, and Z) shall be typed and signed by the registered surveyor, and presented with the Company letterhead. A position accuracy of 0,5m and level accuracy of 0,1m is required.

N-size boreholes are to be drilled both vertically and at an inclined angle, with orientations being carried out at selected depths in the inclined boreholes. The termination conditions for the boreholes will be determined on Site by the *Supervisor*. The maximum depth/length of boreholes is expected to be not greater than 30m (measured from ground level).

Washbore drilling methods will be used from surface to depths where refusal occurs. SPTs, at 1,0m depth intervals and commencing at 0m depth, will supplement the washbore drilling. Below washbore/SPT refusal, NWD4 rotary drilling will follow on through the underlying gravels and boulders, and the bedrock (shales, hornfels and dolerite) strata.

For the purposes of this *Contract*, gravels and boulders are defined as hard aggregate having an Unconfined Compressive Strength (UCS) of greater than 25MPa, average typical dimension of between 50mm and 300mm, and which moves during drilling (resulting in difficult drilling conditions and slow progress).

The drilling shall be carried out using rotary "mud" drilling techniques to minimize disturbance of the subsurface materials. Any drilling muds or additives used by the *Contractor* are to be approved by the *Supervisor* prior to their use, for environmental reasons.

Washboring techniques using open-ended pipes or downward facing water jets shall not be permitted. Only biodegradable drilling aids shall be employed. The *Contractor* is required to produce documentary proof of this fact prior to commencing any drilling. The use of drilling aids in any borehole shall specifically be noted on the Daily Site Diary. Drilling aids shall be properly disposed of after use, to the satisfaction of the *Supervisor*.

N-size diamond drilling is required in competent soils (if encountered), the gravel/boulder layers and the rock. Such drilling shall be by means of NXM, NWD4 or similar sized core barrels.

In boring through permeable materials, the *Contractor* shall avoid any unnecessary disturbance to the material and shall ensure that the drilling fluid in the hole is maintained slightly above the water table.

The drilling rods, core barrel and any close fitting drilling or sampling tools shall be withdrawn slowly to avoid suction pressures arising in the borehole. Drilling fluid shall be added wherever necessary to maintain the required level of drilling fluid in the hole during rod pulling operations.

Only proprietary core barrels shall be used, unless otherwise approved by the *Supervisor*. All accessories and spare parts shall be as supplied or recommended by the manufacturer. Sufficient spares for core barrels, accessories and core bits shall be available for use on Site without causing any delay to drilling operations. The condition of the core bit in use shall be carefully monitored and if any damage occurs, such as breaking of teeth, it shall be replaced immediately.

The use of casings (temporary) shall be at the discretion of the *Contractor* and are to be used to prevent collapse of the boreholes. When a hole is being cased, the bottom of the casing shall always be maintained at approximately 150mm above the bottom of the boring. The casing shall never be allowed to be in advance of the bottom of the borehole during boring or sampling.

The *Contractor* shall take all necessary measures to support the sides of the hole at all times. Collapse of holes shall be minimised by using appropriate drilling techniques, including maintaining adequate flush quality. Re-drilling through collapsed ground, including gravels and boulders, and any surface damage relating to collapsed ground shall be at the *Contractor's* expense.

Only standard nominal lengths of casings and drill rods shall be used. The mixing of standard nominal imperial and metric lengths shall not be permitted.

Where the soil conditions permit, Shelby Tube samples will be taken.

A record of the observations of the flush returns, including the depth of any sudden colour change, change in material arising in the flush and the flush return shall be included on the *Contractor's* drilling record.

Standpipe piezometers will be installed in selected vertical boreholes. In addition to installation, water table levels will be required to be recorded by the *Contractor*.

Prior to core logging and sampling, which will be carried out by the *Supervisor*, the *Contractor* will be required to photograph the core boxes containing the drilled cores (in addition to SPT and Shelby Tube samples where present).

The samples selected for testing by the *Supervisor* are to be prepared for storage and transportation by the *Contractor*.

The records of the drilling as well as the results of the in-situ field tests and laboratory tests are to be presented in a data file.

All boreholes (which do not have any instrumentation to be installed/after removal of instrumentation) and re-circulation sumps shall be backfilled with a soil-cement-bentonite mixture within one (1) working day of completion of the hole.

Where inclined drilling is required, the *Supervisor* will indicate the direction and the inclination of all boreholes to the *Contractor*. The actual direction and inclination of the hole shall be carried out in accordance with the standard specifications.

The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one (1) year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

People employed on the Site should be sufficiently trained to perform the required tasks. Details of the training and competence of the labourers shall be available on Site. The *Employer* reserves the right to instruct the *Contractor* to replace labourers should dangerous or reckless practices be witnessed.

3.1.3 Shelby Tube Samples

Shelby Tube samples shall be taken in accordance with the standard specifications, at depths as directed by the *Supervisor*.

The largest possible diameter to fit the N-size borehole shall be used. The length of the tube shall be such that a 600mm length sample can be recovered. All tubes to be used shall be to the satisfaction of the *Supervisor*, and after use, may be claimed from the soil testing laboratory by the *Contractor*.

Immediately after removal of the Shelby Tube from the borehole and approval of the sample length has been given by the *Supervisor*, the surfaces of the sample shall be sealed with microcrystalline wax to a thickness of not less than 10mm by the *Contractor*. The wax shall not be boiled during the melting.

The tubes shall be marked top and bottom with the appropriate depths and borehole number, and placed in the core box until photographed, where after the samples will be sent for testing.

3.1.4 Standard Penetration Test (SPT)

The SPTs shall be carried out at 1,0m depth intervals, in accordance with the standard specifications. The samples shall be wrapped in plastic sleeves and placed in the core boxes in the sequence of recovery from the Raymond Spoon. Should the material in the Raymond Spoon sample change, the different soils must be separately wrapped with the depth intervals recorded accordingly. The recovered SPT samples shall be clearly and indelibly marked to define the beginning and end of each test using a strip of wood, hardboard or other suitable material. The top and bottom of each test shall be denoted by the insertion of a wooden block at the appropriate position in the core box, clearly marked with the appropriate depth.

The following information shall be indelibly recorded/printed and placed with the sample in the core box:

- Borehole number.
- Depth range of the sample.
- SPT blow counts.

3.1.5 Core Sample Preparation

Core recovered by rotary diamond drilling shall be sealed in plastic sleeves and stored in core boxes as specified above. A minimum core recovery of 80% will be accepted for coring. Where this is not achieved, the *Contractor* shall recover samples of the matrix material using other suitable techniques.

The *Supervisor* shall select pieces of core for laboratory testing. Samples that are to be tested are to be tightly wrapped in a layer of cling film and then sealed with wax to a thickness of not less than 10mm. The wax shall not be boiled during the melting process. A second layer of cling film and wax shall then be applied, where after a card stating the sample details shall be placed on the sample so that the details are clearly visible before a third layer of cling film is wrapped around the sample.

3.1.6 Standpipe Piezometer

Where instructed by the *Supervisor*, the *Contractor* shall install piezometers in the boreholes. All drilling mud shall be flushed from the borehole with water until the water return is clear and to the satisfaction of the *Supervisor*. Due cognisance of the environmental specifications shall be taken for the treatment of the flushing water.

The piezometer is to comprise a 25mm diameter Polyvinyl Chloride (PVC) pipe. The bottom 5m shall be slotted and wrapped in a geofabric sleeve. The entire length of standpipe shall be surrounded by a “gravel pack” comprising clean, coarse sand. The upper 0,5m of the borehole annulus shall be sealed with a cement-bentonite plug. The top of the standpipe is to protrude 100mm above the ground level, and be sealed with a plastic cap.

Water table rest levels are to be recorded approximately twenty-four (24) hours and forty-eight (48) hours after completion of the installation of the piezometer, and the readings included on the driller’s log sheet.

Upon completion of the measurements, and at the discretion of the *Supervisor*, the standpipe shall be cut flush with the ground level and sealed with cement-bentonite.

3.1.7 Core Boxes

For the storage of all cores/samples, suitable core boxes made of timber or other approved material capable of storing 7,5m of core each shall be provided by the *Contractor*, in accordance with the standard specifications. The core box shall be of suitably robust construction, and be provided with a bolt-down type lid. Prior to usage, the *Contractor* shall provide the *Supervisor* with a sample of the core boxes for approval.

The core/samples shall be placed in core boxes in book order and shall be clearly and indelibly marked to define the beginning and end of each drill run and any other intermediate depths required by the *Supervisor*. Each line of core/samples in the core box shall be separated from the adjoining line by a rigid strip of wood, hardboard or other suitable material. The top and bottom of each drill run shall be denoted by the insertion of a wooden block at the appropriate position in the core box, clearly marked with the appropriate depth. Any point, at which a known core loss occurred, shall be similarly marked by means of a wooden block. Only core samples from one drill hole shall be placed in any particular core box. Friable material must, if necessary, be placed in a plastic sleeve before being placed in the core box.

The following information shall be indelibly printed on the lid of the box, using a stencil or similar type of lettering device, approved by the *Supervisor*, no free hand writing shall be allowed:

- *Contractor’s* name.
- Project name.
- Borehole number.
- Box number and total number of boxes, e.g. “Box 1 of 2”.
- Depth range contained in box.

Each core box shall be clearly marked on one long side and both short sides with the borehole number and box number.

3.1.8 Core Photography

Core photography shall be provided for all the boreholes drilled under this *Contract*, in accordance with the standard specifications. Prior to commencing the photography, the *Contractor* shall provide the *Supervisor* with a sample of a photograph for approval.

The core boxes are to be photographed by the *Contractor* prior to the *Supervisor* commencing with the core logging.

The photographs are to form part of the drilling record and are to be included in the Data Pack(s).

3.1.9 Rock Core Orientation

Core orientation surveys will be required for the rotary core drilling (inclined boreholes) using approved methods (putty impression) in accordance with the standard specifications.

Prior to undertaking any surveys, the *Contractor* shall provide the *Supervisor* with a detailed method statement and provide the equipment for inspection by the *Supervisor*.

3.1.10 Test Pitting

A list of preliminary/proposed co-ordinates might be provided by the *Supervisor* in order for the *Contractor's* surveyor to set out the test pit positions. Should the preliminary/proposed co-ordinates not be provided, the *Supervisor* will set out the positions of the test pits on Site. Where access to a particular position is not possible, the *Supervisor* will give an alternative position on Site.

The *Contractor* shall provide a TLB on Site for the excavation of test pits. The TLB excavator shall be fitted with a 600mm wide bucket and capable of excavating a test pit to a minimum depth of 2,5m. In addition, a drip tray must be available for refuelling and to contain spillage should any leakages occur.

The TLB shall be available on a continuous daily basis until all test pits have been excavated. In general, the TLB shall be on Site for a standard 9-hour working day. Support (maintenance, repairs, refuelling, etc.) of the TLB shall be provided by the *Contractor*.

Test pits shall be terminated at the maximum depth of the reach of the excavator or as instructed by the *Supervisor* on Site. Test pits shall be terminated at a shallower depth if any of the following occurs:

- Side walls begin to collapse into the test pit thereby causing a Health and Safety risk.
- Excess groundwater inflow is encountered thereby causing running of soil materials into the test pit.
- Obstructions are encountered that cannot be excavated.
- Any services/structures/features are encountered in the test pit.

If the depth of the pit is less than 2m at the time of termination, an alternative position may be instructed by the *Supervisor*.

Upon termination of the test pit, the pit shall be profiled by the *Supervisor*, and sampled by the *Supervisor* with the assistance of the labourer provided. Thereafter, and on the same day, the test pit shall be backfilled with the material excavated from the test pit.

Material shall be placed in approximately 500mm layers and then firmly compacted using a mechanical compactor. All reasonable efforts shall be made to ensure that all excavated material is replaced in the test pit and, where necessary, the reinstated material shall stand slightly proud of the original ground level. If topsoil was present at the test pit, this shall be reinstated at the surface. Where material from different layers has been stockpiled separately, these shall be reinstated in the reverse order in which they were excavated. Where test pits have been excavated through existing pavement layerworks, these shall be reinstated to its original condition.

The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one (1) year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

All reasonable efforts shall be made to ensure pits are excavated and backfilled in one operation. Where a test pit is to remain open due to unforeseen circumstances, suitable barriers and warning signs shall be placed by the *Contractor*.

The sequence of working shall be such to minimise travel time between test pits so that as many test pits as possible can be excavated in a day. The *Contractor* shall take all reasonable steps to ensure that the labour, tools and equipment (including the TLB) are employed efficiently in excavating and reinstating test pits.

After completion of the test pitting, the position and ground level (X, Y and Z) shall be determined by surveying methods in accordance with the WGS 84 co-ordinate system and Mean Sea Level. A position accuracy of 1m and level accuracy of 0,1m is required. The *Contractor* is to provide the *Supervisor* with the list of co-ordinates and levels within one (1) week of completion of the test pitting. The list shall be typed and signed by the registered surveyor, and presented with the Company letterhead.

The *Contractor* shall provide a full time, competent, experienced and trained operator for the TLB, as well as trained labour (at least 1 labourer, with a shovel and sample bags) to assist the *Supervisor* with soil sampling from the test pits. Both small (1 to 2kg) and large (two (2) bags per sample, each approximately 25kg) disturbed samples shall be taken by the *Contractor* as directed by the *Supervisor*. Undisturbed samples will be taken by the *Supervisor* and will form part of the compliment of samples to be tested.

All tools (e.g. saw cuts and paving breakers), labour, assistance with sampling, removal of excess soil, concrete, waste and debris, backfilling and compaction in layers using a mechanical compactor, making up the shortfall of material, reinstatement of existing layerworks, sweeping and cleaning the immediate surrounds of the test pit area and accommodation of traffic will be at the *Contractor's* expense.

People employed on the Site should be sufficiently trained to perform the required tasks. Details of the training and competence of the labourers (including the TLB operator) shall be available on Site. The *Employer* reserves the right to instruct the *Contractor* to replace labourers should dangerous or reckless practices be witnessed.

At locations where TLB access is restraint, underground services/structures/features are expected and/or in the vicinity of existing pavements, hand-excavated test pits to a depth of 1,5m will suffice. At least 1 labourer must be provided, with a shovel and sampling bags, to assist the *Supervisor* with sampling the soils from the excavated test pits. All tools (e.g. saw cuts and paving breakers), labour, assistance with sampling, removal of excess soil, concrete, waste and debris, backfilling and compaction in layers using a mechanical compactor, making up the shortfall of material, reinstatement of existing layerworks, sweeping and cleaning the immediate surrounds of the test pit area and accommodation of traffic will be at the *Contractor's* expense.

Dynamic Cone Penetrometer (DCP) Tests will be done at selected test pit positions (after removal of any surfacing and gravel base course layers), from both the existing ground level as well as from a reduced level in the test pit.

The records of the test pitting as well as the results of the in-situ field tests and laboratory tests are to be presented in a data file.

3.1.11 Hand-held Dynamic Cone Penetration (DCP) Testing

DCP tests will be done at selected test pit positions (after removal of any surfacing and gravel base course layers where required), from both the existing ground level as well as from a reduced level in the test pit.

DCP tests shall be in accordance with the South African standardised method, that being an 8kg mass falling through a distance of 575mm, with a 60 degree cone. Tests shall be carried out by competent personnel, at locations selected by the *Supervisor*, to a depth of 2m.

Since the evaluation and analysis of the results will be done by the *Client's* Engineer, only the advance of the cone per every 5 blows of the test is required to be provided, i.e. a typed version of the field records. All results (a copy of the field records and the typed version) are to be presented in an electronic format within one (1) week of completing the fieldwork.

3.1.12 Storage of Samples

The *Contractor* shall, at the end of each day, transport the samples from the Site to a suitable covered storage shed provided by the *Contractor*.

During temporary storage, all precautions against possible loss or damage (wilful or accidental) as well as damage due to the elements shall be taken.

The temporary store, supplied by the *Contractor*, shall be weatherproof and to the satisfaction of the *Supervisor*. Minimum height between lowest boxes in stacks and floor of the temporary storage shall be 100mm. Transport of these samples to the permanent storage facility must take place at appropriate intervals as directed by the *Supervisor*.

A suitable facility for logging and photography shall be provided by the *Contractor* at the temporary storage area.

3.1.13 Transport of Samples/Cores

Samples and cores shall be transported in such a way so as to preserve the relevant conditions of soil and rock samples that were present after the sample had come out of the drilling barrel/test pit/sampling tool.

3.1.14 Survey

The *Supervisor* shall be responsible for the setting out of the positions of the boreholes and test pits. The *Contractor* will provide the *Supervisor* with a list of co-ordinates (WGS 84 co-ordinate system) and levels (relative to Mean Sea Level) within one (1) week of completion of the last borehole/test pit. The list shall be typed and presented with the Company letterhead.

3.2 Laboratory Testing

The *Contractor* shall be responsible for the delivery/collection of the samples for laboratory testing, and for the presentation of the laboratory test results in both paper and electronic format.

The *Supervisor* shall be responsible for the testing instructions for each sample.

All tests must be carried out by a South African National Accreditation System (SANAS) accredited testing laboratory, accredited for "Civil Engineering Testing". In this regard, the *Contractor* shall submit a valid SANAS "Certificate of Accreditation" for "Civil Engineering Testing" together with the "Schedule of Accreditation", or certified copies thereof, to the *Project Manager* for acceptance. Failure to comply with this strict requirement will result in the *Contractor* not being able to proceed with the laboratory testing.

The tests shall be carried out as described in the standard specifications. Where multiple testing methods are presented, the *Contractor* is to inform the *Supervisor* in order that the most suitable test method may be selected so as to ensure consistency across samples and reliable comparison between different material samples.

A brief description of the sample being tested shall be made for every sample being tested and included on the laboratory test report. The laboratory test results are to include all the data that is required in the relevant standard. All results are to be fully typed and any graphs or charts computer generated.

Provision has been made in the *Bill of Quantities* for the samples to be collected from site/delivered to the laboratory at regular intervals during the investigation period. The *Contractor* will be responsible for these logistics.

The laboratory test results are to be made available within **four (4) weeks** of the sample being submitted to the laboratory.

Unused samples and untested samples are to be stored at the laboratory for the duration of the *Contract* defects period.

A list of laboratory tests envisaged is listed below:

- Foundation Indicator test; including:
 - Natural Moisture Content.
 - Sieve and Hydrometer analysis.
 - Atterberg limits.
- Maximum Dry Density and Optimum Moisture Content (Mod. AASTHO effort).
- California Bearing Ratio (soaked/neat/untreated).
- Oedometer:
 - Standard single oedometer.
 - Double oedometer.
- Shear box:
 - Remoulding soil.
 - Rock discontinuity.
- USC and E on rock samples.

3.3 Records

This section relates to the preparation and submission of records of Works during the investigation. The contents of the Data Pack(s) are dealt with under Quality Management.

3.3.1 Daily Site Diaries

Daily progress diaries are to be submitted on a daily basis. These must be on pre-printed pro forma sheets and indicate as a minimum:

- List of equipment on Site, mobilised to Site or demobilised from Site on that day. As a minimum, "equipment" is to include drilling rigs, major items of specialist drilling equipment and the TLB.
- List of staff from the *Contractor* and any *Sub-Contractors* on site and the man-hours worked by each staff member. The list shall include by name the *Contractor's* site representative/ agent, supervisor in

charge of the TLB, drilling rig(s), drill rig operators, Safety Officer, Environmental Officer and Quality Assurance (QA) managers. Laboratory technicians, labourers and drilling crew need not be listed by name. Man-hours for staff from *Sub-Contractors* under the control of the *Contractor* such as security staff, surveyors etc. shall also be included.

- List of major Work activities undertaken on that day.
- List of any Health and Safety or environmental incidents occurring on that day.
- List of any delays to the Project occurring on that day.
- List of any significant occurrences during that day.
- Weather conditions, e.g. wind, rain, etc.

The form to be used shall be submitted for approval prior to Commencement of Work. All Daily Diaries shall be submitted as documents in accordance with the approved QA plan.

The Daily Site Diary shall be accepted as a substantial record of the operations on Site and it is in the *Contractor's* interest to ensure that these are as detailed as possible. Claims for extension of time (and any other claims) that the *Contractor* may have will be based on these records. Should the *Contractor* not supply Daily Site Diaries within the stipulated time period, the *Supervisor* shall have the right to instruct the *Contractor* to stop Work with the particular unit of equipment until such time as all the outstanding Daily Site Diaries have been supplied. Additionally, the *Supervisor* has the right to reject any claim from the *Contractor* which cannot be substantiated by Daily Site Diaries in the *Supervisor's* possession.

3.3.2 Site Borehole Records (Driller's Borehole Drilling Logs)

Site borehole records shall be submitted each day and contain details of the borehole drilling and testing Works carried out the previous day. The Site Borehole Records shall contain the following minimum information:

- *Contract* title.
- Borehole number.
- Date.
- Equipment and methods being used.
- Personnel used to drill the hole.
- Details of any services/structures/features encountered.
- Results of all in-situ tests. SPT results shall include blow counts for each test increment.
- List of all samples taken.
- Depth of Shelby Tube samples, including the penetration distance into the soil (in mm) and the length of the sample recovered in the tube (in mm). This shall include all Shelby Tube samples where there is no or low recovery in the tube or where pushing of the sample was unsuccessful.
- The final depth of the hole (or for holes carried out over a number of days, the depth at the end of the day being reported).
- Details of any time spent where the equipment or personnel were not advancing the hole (including stoppages, breakdowns and delays), the reasons therefore and the actual times.
- Any other observations on activities at the hole.
- Details regarding moving between borehole positions and set-up.
- Information on access required.
- Borehole diameter.
- Flush type.
- Method of drilling.
- Casing depth and diameter.
- Observations on the soil and rock material in the hole.

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- Depths of any rock fill or boulders drilled through.
 - Observations on the groundwater in the hole.
 - Observations on flush returns (amount, colour, etc.) during drilling.
 - Depths and time taken for each core run.
 - Approximate core recovery during rotary coring and the depths of any core loss.
 - Details of backfilling of the borehole or instrumentation installed.
 - Water table level reading in standpipe piezometers.

3.4 Site Access Limitations

As the Site is located in the Port of East London, specific security, permit and induction requirements are relevant to working on the Site. The details will be covered during the compulsory Tender Clarification Meeting and Site Inspection.

The drilling and test pit positions are expected to have drive-on access for a 2 wheel drive LDV and trailer; however, skids might be required to access some locations.

Unless otherwise stated by the *Supervisor*, the *Contractor* shall use existing roads in the Port and roads created by the *Contractor* (where applicable). The *Contractor* shall not drive vehicles off established access roads without the specific prior written instruction. Where Sites cannot be accessed by vehicles, it shall be required of the *Contractor* to make alternative arrangements (i.e. carry equipment, etc.).

3.5 Constraints on How the *Contractor* Provides the Works

The position of the *Contractor's* laydown area for plant and equipment, as well as the *Supervisor's* office and latrine(s) will be covered during The Site Inspection. No camping is allowed on the Site.

The *Contractor* will not have the exclusive use of the Site for the duration of the *Contract*. The *Supervisor* will determine the sequence of which boreholes are to be drilled/test pits shall be excavated based on the *Employer's* requirements and any Site restrictions. based on the *Client's* requirements and any Site restrictions. Drilling rig movements will be kept to a minimum where possible. Specific requirements for each borehole/test pit will be given on Site by the *Supervisor*.

Normal working hours are Mondays to Fridays, from 07h00 to 17h00. Works will not be permitted during the course of any weekend and public holiday without permission by the *Project Manager*. Permission to work shall be requested in writing at least two (2) weeks before the particular weekend/days. Permission is not necessarily guaranteed and will be dependent on the nature of the Work to be done and availability of the *Supervisor* and other staff.

3.6 Site Services and Facilities

3.6.1 Facilities Provided by the Employer for the *Contractor*

Table A.2.3: Facilities provided by the *Employer* for the *Contractor*

Item	Date by which it will be provided
Details related to the <i>Contractor's</i> laydown area for the offices and toilet facilities will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission
Details related to water and electricity will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission
Security will be for the <i>Contractor's</i> expense.	<i>Contract</i> Commencement

No As-built drawings are available of any subservices/structures/features, i.e. cables, watermains, etc. The <i>Contractor</i> needs to make provision for a detector of underground services/structures/features.	<i>Contract Commencement</i>
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Wherever the *Employer* provides facilities (including, *inter alia*, temporary power, water, waste disposal, telecommunications, etc.) for the *Contractor's* use within the Working Areas and the *Contractor* adapts such facilities for use, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

3.6.2 Facilities Provided by the *Contractor* for the *Project Manager* and *Supervisor*

For the *Client*, the *Contractor* is to provide a lockable office with two (2) desks, four (4) chairs, chemical toilet(s) and suitable facilities for all meetings to be held on Site. No suitable connection to an existing sewerage system is feasible; chemical type toilets or similar shall therefore be used throughout. Separate toilet facilities and offices shall be provided for the *Contractor's* staff and the *Supervisor*.

Toilet facilities of a sufficient number (as indicated in the Project Health and Safety Specification) shall be provided for the *Contractor's* staff by the *Contractor*. Portable toilets shall be provided at all Sites where distances to the laydown area are great and it would be impractical for the *Contractor's* staff to use facilities at the laydown area during the working day. The *Contractor* shall move toilet facilities to new positions as required.

Outside toilets should be provided with locks and doors and should be secured to prevent them from blowing over. The toilets should not be placed in areas susceptible to flooding. The *Contractor* should arrange for regular servicing of toilets and will be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the *Supervisor*.

No connection points for electricity, potable water and landline telephones are available on Site. The Contractor makes his own arrangements for the connection of such services to his Work Site, for his use when providing the Works.

The Contractor provides the required security measures on Site and in his Working Areas until Completion.

The Contractor shall provide, maintain, move to new positions as required and finally remove, proper shaded areas on the Site for eating areas. These shall be designed to be signed off by a Professional Engineer appointed for temporary Works.

The *Contractor* shall provide office accommodation, laboratories, storage facilities, vehicles, office equipment, etc. as required to provide the Works.

Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of equipment, involving, *inter alia*, offices, accommodation, laboratories, materials storage, compound areas, etc., within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of equipment.

Unless expressly stated as a responsibility of the *Employer*, Site services and facilities, all residual requirements for the provision of facilities and all items of equipment necessary for the *Contractor* to Provide the Works remains the responsibility of the *Contractor*.

3.7 Specifications

The following list of standard specifications (latest edition) is applicable to the Works:

- South South African Institution of Civil Engineering (SAICE): Site Investigations Code of Practice, January 2010.
- South African National Roads Agency (SANRAL) – Standard Specification for Subsurface Investigations, 2010.
- British Standard (BS) 5930 – Code of Practice for Site Investigations.
- Technical Methods for Highways (TMH) 1 – Standard Methods of Testing Road Construction Materials.
- BS 1377 – Methods of test for soils for civil engineering purposes.

3.8 Management Meetings

It is the *Employer's* specific intention that the Parties and their agents use the techniques of partnering to manage the *Contract* by holding meetings designed to pro-actively and jointly manage the administration of the *Contract* with the objective of minimising the adverse effects of risks and surprises for both Parties.

Depending on the size and complexity of the Works, it is probably beneficial for the *Employer* to hold a weekly Risk Register Meeting. This could be used to discuss safety, compensation events, *Sub-Contracting*, overall co-ordination and other matters of a general nature.

Separate meetings for specialist activities such as programming, engineering and design management, may also be warranted.

Regular meetings of a general nature may be convened and chaired by the *Project Manager* or a delegated representative as follows:

Table A.2.4: Management meetings

Title and purpose	Approximate time and interval	Location	Attendance by:
Kick-Off Meeting	Prior to Commencement of Work	Site office or as mutually agreed from time to time	<i>Employer, Contractor</i> (key persons) and <i>Project Manager</i> (appropriate delegates)
<i>Contract</i> Progress Meeting	Fortnightly	Site office or as mutually agreed from time to time	<i>Employer, Contractor</i> (key persons) and <i>Project Manager</i> (appropriate delegates)
Risk Register and Compensation Events	Weekly	Site office or as mutually agreed from time to time	<i>Project Manager</i> (and appropriate delegates), <i>Supervisor</i> (and appropriate delegates) and <i>Contractor</i>

Title and purpose	Approximate time and interval	Location	Attendance by:
			(appropriate key persons)
Monthly SHE Meeting	Monthly	Site office or as mutually agreed from time to time	<i>Employer, Project Manager</i> (and appropriate delegates), <i>Contractor</i> (line management, Site Supervisor, Safety Officer, Environmental Officer and safety reps)
Safety Visible Felt Leadership Walkabout	Weekly	On Site	<i>Project Manager</i> (and appropriate delegates) and <i>Contractor</i> (appropriate key persons)
Safety Committee Meeting	Every second month	Site office or as mutually agreed from time to time	<i>Employer, Contractor</i> (key persons) and <i>Project Manager</i> (appropriate delegates)

Meetings of a specialist nature may be convened as specified elsewhere in this *Works Information* or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the Works. Records of these meetings shall be submitted to the *Project Manager* by the person convening the meeting within five (5) days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the *Contract* as these shall be done separately by the person identified in the *Conditions of Contract* to carry out such actions or instructions.

The *Contractor* will provide suitable facilities for all meetings to be held on Site.

The *Contractor* attends Management Meetings at the *Project Manager's* request. At these meetings the *Contractor* presents all relevant data including safety, health and environmental issues, progress reports, Quality Plans, *Sub-Contractor* management reports (as may be required).

3.9 Planning and Programming

A programme is required to be submitted with the Tender submission, and thereafter in accordance with the intervals prescribed in the NEC *Contract* documentation.

After *Contract* award, the *Contractor* shall be required to submit a fully Integrated Programme for Acceptance, as Project baseline, by the *Project Manager*.

The methodology envisaged in creation of the programme should take into account, but is not limited to, the following:

- *All planning is done based on the Critical Path Method (CPM). The programme shows the critical path clearly.*
- The programme layout takes into account the approved Work Breakdown Structure (WBS), reflecting the manner in which the services are to be performed and how control data are to be summarised, reported and monitored.
- Time analysis:
 - Manipulation of 'lags', 'overlaps', 'leads', 'relations' or 'dummies' to cause the float to remain constant when updates are performed, is not acceptable.
- Planning networks:
 - The *Contractor* provides the program logic in network format, together with a total float report for acceptance by the *Employer*. The calendar(s) used is/are based on agreed working hours per day and not exceeding agreed hours per week. Any changes to this are submitted to the *Employer* for acceptance.
- The *Contractor's* program shall include, but not be limited to, the following in compliance with the *Contract* requirements:
 - The days of working per week, shifts per working days and holidays.
 - Where multiple calendars are used, this information shall be provided for each of the calendars, accompanied by a schedule indicating the calendar applicable to each activity.
 - A native document to be submitted with explains the development of the Project schedule e.g. risks, schedule opportunities, assumptions, etc.

The *Contractor* shall plan and provide both integrated programmes and contractually compliant programmes, including Project s-curves throughout the Project development and execution.

The software (MS Projects) used in developing the programmes shall be compatible with the Primavera P6 version planning tool. The *Contractor* is required to familiarize them with the detail required at the various stages of the Project to ensure timeous and complete reporting.

In compliance with the Project Management and Reporting requirements, the *Contractor* shall adhere to the following submittal and reporting requirements during the life of the Project:

- Monthly overall Project schedule, reflecting the Project baseline; current progress, performance and recovery proposals for delayed activities; two (2) week look-ahead schedule with forecast plans against future milestones.
- S-curve report.
- Bi-weekly Project schedule update, reflecting Project baseline of which the *Employer* may request the *Contractor* to issue this report on a weekly basis (depending on the criticality of the Project).
- Critical path schedule, showing current Project critical path on monthly and bi-weekly basis.
- Project milestone schedule with major Project milestones and *Employer* key dates on bi-weekly and monthly reporting cycles; this should include baseline, actual and forecast dates.

3.10 Contract Management

The form of *Contract* to be administered is NEC (New Engineering Contract) therefore the *Contractor* shall appoint relevant resources with the right qualification to administer the NEC type of *Contract*.

It is the *Employer's* responsibility to set-up, facilitate and chair meetings (e.g. Project Progress Meetings) and to discuss the *Project Manager's* instruction register, early warnings register, compensation events register,

dispute register and risk reduction register. It is both the *Employer's* and *Contractor's* responsibility to give an Early Warning by notifying the other as soon as either becomes aware of a possible risk to the Project.

In the event that the *Contractor* sub-contracts the other Party in completing portions of the Work, the *Contractor* shall retain responsibility and accountability to the *Employer* as if the Work shall be done by the *Contractor*. This *Contract* applies as if a *Sub-Contractor's* employees and equipment were the *Contractor's*. The *Contractor* shall submit the name of each proposed *Sub-Contractor* to the *Project Manager* for acceptance prior to appointing the *Sub-Contractor*.

Contract related issues shall be in the form of a letter addressed to the *Employer's* representative (*Project Manager*). In the event that there is a *Contract* dispute that cannot be resolved in the meetings, it shall be resolved according to dispute resolution procedure option W1 of the NEC.

Upon *Contract* award the schedule of *Contract* related meetings shall be agreed by both Parties.

3.11 Cost Management

The *Contractor* shall provide a cost management service that shall include (but not be limited to) budget allocation, forecasting, estimation to Completion, displaying commitments (status and forecasts), actual spends, change, potential change, risk quantification and costing. The entire *Contract* and Project information shall provide the *Employer* with an accurate description of the Project costs at any point in time. This information shall be reviewed and incorporated into other Project systems/tools to improve the accuracy and auditing of reporting.

All cost assessment, evaluation, approvals and rejection shall be counter signed by a Transnet employee with the required delegation before being submitted to Finance for processing. In addition, all claims and certificates shall have supporting evidence attached before progressing by the *Employer*.

The *Contractor* manages all costs applicable to this Project in conjunction with the *Employer's* inputs. All changes or issues resulting in changes to the Price of various *Contracts* (construction *Contracts* and Suppliers purchase orders) managed by the *Contractor* shall be discussed and agreed with the *Employer* prior to implementation.

The Contractor is responsible for the following:

- Submit a detailed cash flow forecast to the *Employer* within fourteen (14) days after *Contract* award aligned to schedule and procurement activities. The cash flow must be updated and submitted monthly when submitting monthly payment application to the *Employer* (if applicable).

3.12 Documentation Control

The *Contractor* provides documentation in accordance with the requirements of the *Contractor* Documentation Submittal Requirements and the *Contractor* Documentation Schedule (CDS) and makes specific reference thereto within his Quality Management System and Quality Procedures.

The *Contractor* Document Submittal Requirements is contained within Annexure B (*Contractor* Documentation Submittal Requirements) of the *Works Information*. A standard *Contractor* Documentation 'Starter Kit' will be issued to the *Contractor* upon award and consists of the following:

- Standard Project Drawing Sheet.

- *Contractor* Document Register (DOC-FAT-0002).
- A4 Review Coversheet for Documents (DOC-FAT-0067).
- Document Deliverable Matrix (DOC-FAT-0075).

The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Contractor*.

Each Supplier of documentation and data to the Project is responsible for ensuring that all documentation and data submitted conforms to the Project standards and data Quality requirements in terms of numbering, uniqueness, Quality, accuracy, format, completeness and currency of information. Data not meeting the Project standards and data Quality requirements will be rejected and returned to the *Contractor* for corrective action and resubmission.

Should any change be made to documentation or data, which has already been submitted to the Project, then new or revised documentation or data shall be issued to replace the outdated information.

All drawings supplied shall comply with the Computer Aided Design (CAD) Standards, i.e. ENG-STD-0001 – Annexure C.

The *Contractor* shall ensure that the latest versions of the required application software and a suitable “IT” infrastructure is in place to support the electronic transmission of documentation.

Electronic files submitted to the Project shall be clear of known viruses and extraneous “macros”. The Supplier of documentation is required to have, at all times, the latest generation of virus protection software and up-to-date virus definitions.

The *Contractor* shall be responsible for the supply of all Sub-Supplier/*Contractor*/Manufacturer, etc. documentation and data related to their package of Work, and shall ensure that these Sub-Suppliers have the capability to supply the necessary documentation and data in the required time-frame and Quality as outlined in the specified standards prior to awarding sub-orders.

The required number of copies of documentation and data shall be as specified in the *Contractor* Documentation Schedule (CDS) - as a minimum three (3) (1 x original + 2 x hard copies), with the corresponding PDF and native file formats upon final submission.

The *Contractor* shall apply “wet signatures” to the original documentation before scanning the signed original and prior to formal submission to the Project.

Final issues of all documentation shall be supplied to the Project in “wet signature” format along with the associated corresponding electronic native files and PDF renditions.

The *Contractor* shall ensure adequate resources are available to manage and execute the document control function as per the requirements of the Project. The *Contractor* shall ensure that a dedicated Document Controller is available for the Project.

3.13 Procedure for Submission and Acceptance of *Contractor*’s Documents

The *Contractor*’s documentation shall be issued to the *Project Manager* under cover of the *Contractor*’s Transmittal Note indicating all *Contract* references (i.e. Project Number, *Contract* Number, etc.) as well as the *Contractor*’s Project Document Number, Revision Number, Title and chronological listing of transmitted

documentation. Formats of *Contractor* data submitted is dependent on the Project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.

The *Contractor* shall deliver both hard copies and electronic media copies (CD Rom) to the *Project Manager* either at the address stated within the *Contract Data* or at the Project Site office.

All electronic documentation shall be submitted by the *Contractor* in Adobe Acrobat (.pdf) and native file format.

Acceptance of documentation by the *Project Manager* will in no way relieve the *Contractor* of its responsibility for the correctness of information, or conformance with his obligation to provide the Works. This obligation rests solely with the *Contractor*.

After review, a copy of the original reviewed/marked-up drawing/document, with the *Project Manager's* consolidated comments and document status marked on the *Contractor* Review Label, shall be scanned and the copy shall be returned to the *Contractor* under cover of the Project's Transmittal Note for revision or resubmittal as instructed.

The *Contractor* shall allow the *Project Manager* two (2) weeks (unless otherwise stated and agreed) to review and respond to the *Contractor's* submission of their documentation, i.e. from time of receipt to the time of despatch. However, Work shall proceed without delay in the event of late return of the documentation by the *Project Manager* with prior notification in writing by the *Contractor*.

On receipt of the reviewed documentation, the *Contractor* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within two (2) weeks. Queries regarding comments/changes should be addressed with the *Project Manager* prior to resubmittal.

Any resubmittals, which have not included the changes/comments identified, will be returned to the *Contractor* to be corrected. The *Contractor* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within two (2) working days of receipt of the marked-up document.

In undertaking the Works (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Documentation Submittal Requirements Standard included in Annexure B (Refer DOC-STD-0001 – Rev03).

3.14 As-built Drawings, Operating Manuals and Data Packs

The *Contractor* provides the following:

- As-built/Final Documentation
 - In undertaking the Works (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Documentation Submittal Requirements Standard included in Annexure B (Refer DOC-STD-0001 – Rev03).
 - All As-built information to be signed off by *Contractor's* responsible Pr. Eng. before issue to the *Employer*.
- Installation, Maintenance and Operating Manuals and Data Books
 - The *Contractor* provides manuals in an A4 hard covered, white, grease and waterproof binder, using 2 ring type binders. The manuals are well indexed and user friendly and include a summarized Table of Contents.

- Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.
- The *Contractor* submits the draft Table of Contents to the *Project Manager* for acceptance prior to the compilation and official submittal of the manuals.
- The originals of all brochures shall be issued to the *Project Manager*. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number shall be stated, which is best achieved by introducing a separate index page, which cross-references the specific item to a tag number.
- The address, phone numbers, fax numbers and reference numbers of all *Sub-Contractors* are provided.
- Where manuals include drawings that still need to be revised to “As-built” status, and such manuals are required prior to “As-built” status, the manual will not be considered to be in its final form until the “As-built” version of each such drawing has been incorporated.
- The required number of copies of the manual(s) shall be as specified by the *Project Manager* and submitted per type or model number of equipment included in the *Contract*, or as specified by the *Project Manager*.
- A typical example of what the binder/file(s) shall be marked with on the spine and the front cover is as follows:
 - Project Name.
 - Manual Title, e.g. Installation, Maintenance and Operating Manual.
 - Facility Breakdown Structure (FBS) Number and Title.
 - Manual Numbering (e.g. Volume 1 of 2, etc.).
 - *Contract* Number.
 - *Contractor* Name.
- Unless otherwise stated in the CDS, the required number of copies of all As-built/Final/Data Pack(s) shall be:
 - 3 x hard copies (full size).
 - 3 x CD ROM with Adobe Acrobat (.pdf) and native formats.

3.15 Construction Management

The *Contractor* adheres to the Project Health and Safety Specification.

In addition to his responsibilities under the *Occupational Health and Safety* (OHS) Act, the *Contractor* is responsible for the following:

- Attending Progress Meetings as determined by the *Project Manager* to monitor and report progress.
- Keeping and updating photographic records.
- Preparing and submitting Quality method statement for *Project Manager's* approval.
- Carrying out fieldwork in an approach that will minimize disruption to other Port activities.

The *Contractor* keeps daily records of his people engaged on the Site and Working Areas (including *Sub-Contractors*) with access to such daily records available for inspection by the *Project Manager* at all reasonable times. Daily records should be agreed per diem with the *Project Manager's* delegate or agreed representative.

Use of existing provincial roads shall be limited to an absolute minimum and shall not be used by the *Contractor* as haul roads for fieldwork purposes.

The *Contractor* must exercise due care to avoid damage or disruption to existing services/structures/features (*Contractor* to do assessment of adjacent properties before starting with the Works and submit to the *Employer*). The *Contractor* shall be liable for all claims arising out of any damage caused if the *Contractor* fails to exercise the requisite care and attention in carrying out the Works.

Where the *Contractor* encounters existing underground services/existing services cables/pipe trenches/structures/features, the *Contractor* undertakes the following:

- Stop all operation processes and inform the *Supervisor*.

The *Contractor* shall ensure that all his labour and equipment remains within the fenced off allocated fieldwork area.

All staff and labour working on Site must comply with the *Employer's* operational safety requirements and be equipped with all necessary protective clothing, equipment and high visibility apparel whilst on Site and not within 3m of the railway lines.

Equipment used by the *Contractor* in providing the Works shall comply with the General Machinery Regulation 4 of the OHS Act (Act 85 of 1993) and without prejudice to the aforesaid act, comply with the certification requirements of *Employer's* Code of Practice No. 29. Operators of equipment shall be in possession of a valid certificate in terms of this Code of Practice.

No labour accommodation shall be allowed within the Port.

The *Contractor* complies with the Construction Environmental Management Plan (CEMP), Standard Environmental Specification (SES), and Project Environmental Specification (PES) in the execution of the Works.

Publicity and progress photographs:

- The *Contractor* provides a notice board with specific details such as *Employer* title, responsible person in charge, emergency contact numbers as well approved safety documentation such as risk assessment at each active Working Area.
- The *Contractor* provides progress photographs at intervals as requested by the *Project Manager*.
- The *Contractor* does not advertise the *Contract* or the Project to any third Party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Project Manager*.

The *Contractor* shall obtain all the necessary work permits before starting any excavations and hot work, in accordance with Health and Safety procedures.

Where Work is to be carried out on, over, under or adjacent to railway lines or near high voltage equipment:

- All Work on, over, under or adjacent to railway lines and near high voltage equipment shall comply with *Employer* specification E7/1.
- The *Contractor* shall not have sole possession of the Site. The *Contractor* shall co-operate with Others and common users of the Site in regards to Site occupation and access.

The existing railway lines are to be regarded as operational at all times and the fullest collaboration between the *Contractor* and the *Project Manager* is essential with regard to the operations and working of the railway lines.

Notification must be given to the Central Train Control (CTC) every day before any Work commences within 5m of the operational railway lines by adhering to the procedures stipulated in the rules of the route.

Overview of the processes for obtaining occupations, permits and items of operational impact:

- When Work on or near the overhead track equipment, necessitating the isolation and earthing of the high voltage electrical equipment and involves the re-timing or cancellation of electric trains, it shall be arranged in advance and as prescribed in the E7/1 specification. In such a case an occupation of the line and a Work permit is required effecting the operations of Transnet Freight Rail (TFR).
- The *Contractor* is required to submit his formal application for occupations/permits, line-side Work or other operational impacts via the *Project Manager* (or delegate). There may be no communication between the *Contractor* and TFR representatives regarding these items.
- Application from the *Contractor* must include all relevant information, including:
 - Date.
 - Time.
 - Duration.
 - Electrical switching details.
 - Occupation type.
 - Specific limits of Work.
 - Description of the Work to be undertaken.
 - *Contractor* to apply for excavation permit (Identification and detection of existing services will be *Contractor's* responsibility).
- Although the E7/1 specification indicates twenty-one (21) days as the required notification period, two (2) months prior notification is required to allow TFR to follow their prescribed internal process. An official occupation/permit notice shall be issued to the requestor and serves as a prerequisite for the actual permit that shall be executed on the date, as approved.
- In order to be granted the occupation/permit it is necessary for the *Contractor* to demonstrate that there is suitable and sufficient planning in place.

Monitoring:

- All occupations/permits are monitored by the *Project Manager*. *Contractors* are required to submit feedback and confirmation of the working times achieved for all occupations/permits on a weekly basis.

Once the *Contractor's* request has been validated by the *Project Manager*, it is passed to the TFR maintenance department. They shall then process the request and issue the notice not less than one (1) week prior to the proposed date. If a notice request is submitted but later cancelled, a formal notification of the cancellation is required to be submitted.

The *Contractor* shall, on Completion of his Works, completely remove from Site all his equipment, material, foundations and other structures, erected stores and temporary office accommodation (or any other asset belonging to him) and leave the Site in a tidy condition to the satisfaction of the *Project Manager*.

4 Regulatory Requirements

4.1 Health and Safety Requirements

The *Contractor* must prepare and submit for approval a Health and Safety file in terms of the *Employer's* Health and Safety requirements for *Contractors* working on Transnet property. In terms of this file, the successful Tenderer shall be responsible for the implementation of the obligations contained in the Health and Safety file. A copy of the file shall be kept by the *Employer* and be available on Site.

There are requirements of the *Contractor* in terms of Health and Safety. These are described below:

- Legal Appointments and proof of competencies for the Delegated Authority 16(2), Construction Supervisor 8(7), Construction Safety Officer as well as SHE Rep 17(1) and First Aider (at least level 3 trained).
- First Aid Box with all the required contents.
- Valid letter of good standing for the *Contractor*, a copy of WCL2 form and ID copies for all on Site.
- Safety Daily Task Instruction (Safety Talk) to be done daily before Work commences.
- Health and Safety Plan, including COVID-19 management plan for the *Contractor* in line with the *Employer's* Health and Safety Specification.
- Cost Schedule for Health and Safety, including COVID-19 management.
- Organogram of supporting structure (this document must provide all persons appointed in terms of the OHS Act (Act 85 of 1993).
- Risk Assessment with all the activities that shall be performed on Site.
- Method statement for the tasks.
- Safe work procedure for the tasks.
- Proof that issue register system is in place for PPE.
- Valid medical certificates of fitness done by an Occupational Health Practitioner for all on Site.
- Proof of induction training received.
- Section 37(2) mandatory agreement between *Client – Contractor – Sub-Contractors*.
- Proof of competency for the drilling operators and their medical certificates of fitness.
- Proof of service for the TLB and drilling plant.
- Proof of TLB and drilling plant that is pre-inspected daily before use.
- Proof of alcohol and COVID-19 testing register of all on Site daily done by the trained person.

The areas of investigation are within Transnet property and an induction, which is not expected to be onerous, shall form part of the first day's Work. No Work on Site is permitted until the above documents are approved by the *Employer* and a Site access certificate has been issued by the *Project Manager*.

4.2 Environmental Management

All Work shall be conducted in accordance with the principles of the National Environmental Management Act (NEMA), 1998 (Act no. 107 of 1998) but not limited to other applicable regulations and the accepted environmental good practices. The following documents of the *Works Information* provide the minimum acceptable standards that shall be adhered to:

- Construction Environmental Management Plan (CEMP) – ENV-STD-001 – Rev04.
- Standard Environmental Specification (SES) – ENV-STD-002 – Rev04.
- Declaration of Understanding.
- Transnet Safety, Health, Environment and Quality (SHEQ) Policy Statement.

The *Contractor* shall perform the Works and all fieldwork activities within the Site and Working Areas having due regard for the environment and environmental management practices.

The CEMP provides an integrated approach to environmental management. This approach is designed to guide the appropriate allocation of human resources, assign responsibilities, develop procedures and ensure compliance with regulatory and best practice requirements.

The SES describes the minimum acceptable standard for environmental management for the range of environmental aspects commonly encountered on construction projects and sets environmental objectives and targets, with which the *Contractor* must comply.

The *Contractor* shall, as required by the CEMP, provide activity based environmental method statements for particular planned fieldwork activities at the Site and/or Working Area and/or where requested by the Construction Manager or Environmental Officer.

The *Contractor* shall submit an environmental file to the *Employer* for approval. Details of the environmental file shall be made known post Tender award. No Work on Site shall be permitted until the file is approved.

The *Contractor* shall sign the Declaration of Understanding and the original signed copy must be submitted to the *Employer's* Construction Manager prior to the start of fieldwork.

The *Contractor* shall comply with the specifications of the CEMP and abide with the *Employer's* Construction Manager's instructions regarding the implementation of the CEMP.

During the investigation period, the *Contractor* must comply with the following:

- A copy of the CEMP and SES shall be available on Site, and the *Contractor* shall ensure that all personnel on Site, including *Sub-Contractors*, Suppliers and their staff, are familiar with and understand the specifications contained in the CEMP and SES.
- Where method statements are required during the investigation, the method statement must be submitted to the *Project Environmental Manager* for approval at least fourteen (14) days prior to the proposed commencement of the activity.

The *Contractor* shall clear and clean the Site and Working Areas and ensure that everything not forming part of the Works is removed from the Site and Working Areas and that all re-instatement has taken place in accordance with the CEMP and SES.

4.3 Quality Assurance Requirements

The onus rests entirely on the *Contractor* to produce the Works which shall conform in Quality and accuracy of detail to the requirements of the Transnet – Quality specification “General Quality Requirements for *Contractors* and Suppliers” including Technical Specifications and Drawings. The *Contractor* must, at his own expense, institute a Quality Management System, instruments and equipment to ensure adequate Quality supervision and control of the Works at all times.

The *Contractor* shall submit Project Quality Plan (PQP), Method Statement, Quality Control Plans (QCP's) and Data Pack Index to the *Client* for approval. The *Contractor's* Quality Plan shall include or reference the Quality Plans of *Sub-Contractors* if applicable.

The *Contractor* develops and maintains a comprehensive register of documents that shall be generated throughout the *Contract* for Project deliverables, including all Quality related documents, as part of the *Contract*.

The *Project Manager* indicates those documents required to be submitted for information, review or acceptance and the *Contractor* indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents with the *Project Manager* responding to documents submitted by the *Contractor* for review or acceptance within the period for reply prior to such documents being used by the *Contractor*.

4.4 Risk Management

The *Contractor* to review the potential risk elements as per the ISO 31000 Risk Management standard associated with the Project. The *Contractor* to demonstrate the experience in identifying risk, measure risks, analyse risk, mitigate risk, monitor and control risk, assign risk owner, action plan dates. The documents should:

- Present Project Risk Management Plan.
- Present Project Risk Management Policy and Procedure.
- Present how Project Risk Management shall be implemented/executed in the Project.

Notwithstanding this information, all costs related to risk elements (which are at the *Contractor's* risk) are deemed to be included in the Tenderer's offered total of the Prices.

4.5 Insurance

The insurance that shall be provided by the *Employer* is arranged on a Principled Controlled Insurance (PCI) basis. All Parties of this Project is insured under this portfolio.

The insurance portfolio consists of a Public Liability policy and a Professional Indemnity for design and construction.

The *Contractor* shall maintain its own insurance for plant and equipment, own employee liability (Compensation for Occupational Injuries and Diseases Act, COIDA), motor vehicle insurance and motor vehicle third Party insurance as stated in the *Contract*.

The Insurance procedure manual shall be issued within two (2) weeks after the starting date. This manual shall contain the claim procedure, claim advice form as well as a more detailed description of each policy.

The *Contractor* follows the claims procedure and liaises with the *Employer* and the *Project Manager* when a claim is made and assists in completing the Claims Advice Forms that is contained in the insurance procedure manual.

The *Contractor* shall supply the *Employer* with all required information to substantiate the claim.

The *Contractor* is liable for the deductible of each insurance claim as contained in the Insurance procedure manual. The deductible can change from time to time.

The *Contractor* can purchase any other insurance in addition to the amount of insurance taken out by the *Employer* for the same risk to no cost of the *Employer*.

4.6 Contractor's Management, Supervision and Key People

The *Contractor* shall provide an organogram showing his key people and their lines of authority and communication.

5 Procurement

5.1 Code of Conduct

Transnet aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any Supplier dealing with Transnet must understand and support. These are:

- The Transnet Procurement Procedures Manual (PPM).
- Section 217 of the Constitution - the five pillars of Public Procurement and Supply Chain Management (PSCM): fair, equitable, transparent, competitive and cost effective.
- The Public Finance Management Act (PFMA).
- The Broad Based Black Economic Empowerment (BBBEE) Act.
- The Anti-Corruption Act.

This code of conduct has been included in this *Contract* to formally appraise Transnet Suppliers of Transnet's expectations regarding the behaviour and conduct of its Suppliers.

5.2 Prohibition of Bribes, Kickbacks, Unlawful Payments and Other Corrupt Practices

Transnet is in the process of transforming itself into a self-sustaining state owned enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that shall enable this transformation.

- Transnet shall not participate in corrupt practices and therefore expects its Suppliers to act in a similar manner.
- Transnet and its employees shall follow the laws of this country and keep accurate business records that reflect actual transactions with and payments to our Suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, to:
 - Illegally influence their judgment or conduct or to ensure the desired outcome of a sourcing activity.
 - Win or retain business or to influence any act or decision of any decision stakeholders involved in sourcing decisions.
 - Gain an improper advantage.
- There may be times when a Supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our 'Tip-offs Anonymous' hot line to report these acts (0800 003 056).
- Transnet is firmly committed to the ideas of free and competitive enterprise.
 - Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust.

- Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).
- Transnet's relationship with Suppliers requires us to clearly define requirements, exchange information and share mutual benefits.
- Generally, Suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our Suppliers, we shall not tolerate any illegal activities. These include, but are not limited to:
 - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc.).
 - Collusion.
 - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.).
 - Corrupt activities listed above.
 - Harassment, intimidation or other aggressive actions towards Transnet employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the Supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

5.3 Conflicts of Interest

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet, such as:

- Doing business with family members.
- Having a financial interest in another company in our industry.

6 ***Sub-Contractor***

The *Contractor* shall appoint a SANAS accredited testing laboratory, accredited for “Civil Engineering Testing” to perform laboratory tests (refer to Section 3.2).

Surveying activities for setting out borehole/test pit positions may also require the appointment of a registered surveyor.

Sub-Contractor documentation and assessment of *Sub-Contract* Tenders:

- *Contractor* shall ensure that the Quality Assurance, Health and Safety, industrial relations, environmental, documentation control and all other requirements placed on him under this *Contract* are transferred into any *Sub-Contracts*.

Where the *Contractor* employs a *Sub-Contractor* who performs part of the Works or who supplies plant and materials for incorporation into the Works, which involves a *Sub-Contractor* operating on the Site and/or Working Areas, then the *Contractor* ensures that any such *Sub-Contractor* complies with the CEMP, SES and PES Environmental Management requirements (NEMA and Transnet) as appropriate and that the *Sub-Contract* documentation places back-to-back obligations on the *Sub-Contractor* which reflect the *Contractor's* obligations under the CEMP, SES and PES, all within the *Contractor's* Quality Management System.

Where the *Contractor* employs a *Sub-Contractor* who performs part of the Works or who supplies plant and materials for incorporation into the Works, which involves a *Sub-Contractor* operating on the Site and/or Working Areas, then the *Contractor* ensures that any such *Sub-Contractor* complies with the Project Industrial Relations Policy (PIRP) as appropriate and that the *Sub-Contract* documentation places back-to-back obligations on the *Sub-Contractor* which reflect the *Contractor's* obligations under the PIRP, all within the *Contractor's* Quality Management System.

The *Contractor* shall ensure that the Quality Assurance requirements placed on him under this *Contract* are transferred onto all appointed *Sub-Contractors*.

7 Invoices

All invoices submitted by the *Contractor* shall be VAT invoices, which shall be accompanied by a daily activity sheet, covering the services together with, where relevant, a brief explanation of the time covered, and full breakdown of expenses to which receipts relate.

The invoice states the following:

- Invoice addressed to Transnet Limited.
- Transnet Limited's VAT No: 4720103177.
- Invoice number.
- The Contractor's VAT Number.
- The Contract Number.

Invoices are to be delivered to:

N2 Neptune Road
2nd Floor, TNPA Admin Building (Emendi Building)
Port of Ngqura
Port Elizabeth
Attention: The office of the Secretariat: Alphoncina Tau
Email address: Alphoncina.Tau@Transnet.net

The invoice is presented as an original.

ANNEXURE B.2: Proposed Site Plan for Scope A.2

Additional Administrative Facilities and Office Consolidation (Port of East London, Land Section)



This is only a proposed site layout. The *Supervisor* can provide alternative positions for boreholes/test pits during the course of the geotechnical investigation as required/deemed necessary.

SCOPE B: OLD TUG JETTY SHEET PILE REHABILITATION (PORT OF PORT ELIZABETH)

All Works shall comply with:

- Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act (Act 85 of 1993).
- All relevant Transnet policies.

1 Executive Overview

According to the Owner Requirements Specification (Rust and Motala, 2019), the Old Tug Jetty sheet pile wall, located within the Port of Port Elizabeth, was constructed in the mid 1970's during the reclamation process of the land in front of Workshop 17, which intended to create working space in and around the workshop. Thus, the age of the sheet pile can be estimated to be at least 44 years old. Over the years, the use of this reclaimed land has changed and is now currently part of the land footprint allocated to the fishing industry within the Port. Construction of the sheet pile involved driving steel sheet piles to approximately 8 meters below Low Water of Ordinary Spring Tide (LWOST) or -7.94 meters Chart Datum (CD) for an extent of 246.2 meters spanning between the commercial slipway in the north to the Algoa Bay Sailing Marina (ABSM) slip to the south. The sheet pile quay wall was constructed before the Old Tug Jetty.

The section south of the Old Tug Jetty is leased to ABSM for the maintenance of the floating walkways in the marina. Additionally, ABSM conduct maintenance of smaller yachts on the back up area.

The area north of the Old Tug Jetty is used for the berthing of fishing vessels while the quayside is used for the loading and unloading of fishing cargo and supplies. A portion of the quayside is leased to Eyethu fishing company, a tenant in the Port of Port Elizabeth, who have sole use of the berthing space and back up area. The remainder of the quay is common user; however, it is used predominantly by Ulwandle inshore due to proximity to their factory. Figure B.1 below shows the location of the Old Tug Jetty Site within the Port of Port Elizabeth.

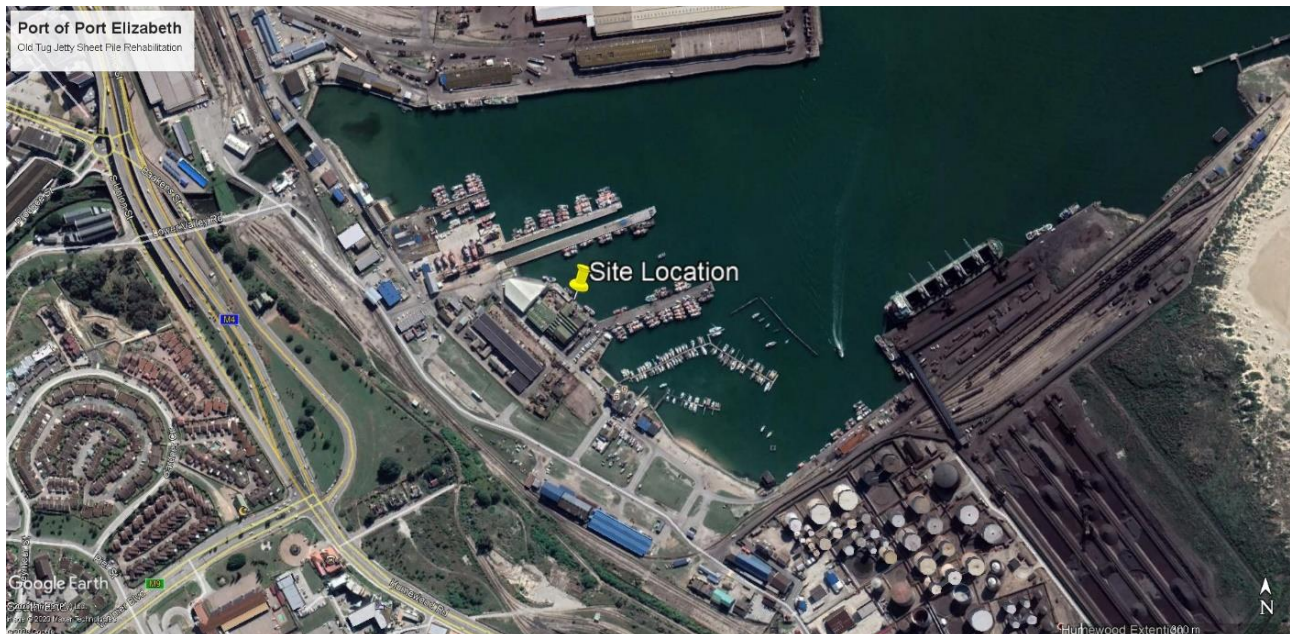


Figure B.1: Location of the Old Tug Jetty Site within the Port of Port Elizabeth

Over the past years, the sheet pile has been repaired to various extents on numerous occasions, the most recent being in March 2015. This was due to corrosion of the sheet pile with the worst affected area in the tidal zone, i.e. the zone between the Mean Low Water Spring (MLWS) and the Mean High Water Spring (MHWS). The corrosion caused holes to form which resulted in loss of retained material and subsequent subsidence of the quayside.

The repairs conducted were intrusive and included mass excavation behind the sheet pile. During the excavation process, the following discoveries were made:

- The tie rods were extremely corroded, affecting their effectiveness.
- The grading of the fill material had changed considerably with virtually no finer materials, affecting the level of compaction achievable and thus the bearing capacity of the fill material.
- Surface rust and/or minor corrosion present on most of the original sheet pile.

Further diving inspections, conducted as part of annual monitoring, indicated that some of the “patch plates” installed in previous repair campaigns have come off. This is most probably due to the further deterioration of the steel - weakening the connection points between the sheet pile and patch plates and resulting in failure. Due to the extent of corrosion, the invasiveness of the repairs and the frequency at which repairs are required, it has become evident that the repairs were only a short term solution and the timely implantation of a robust, long term solution is required. Figure B.2 below shows the extents of the Old Tug Jetty sheet pile wall within the Port of Port Elizabeth.

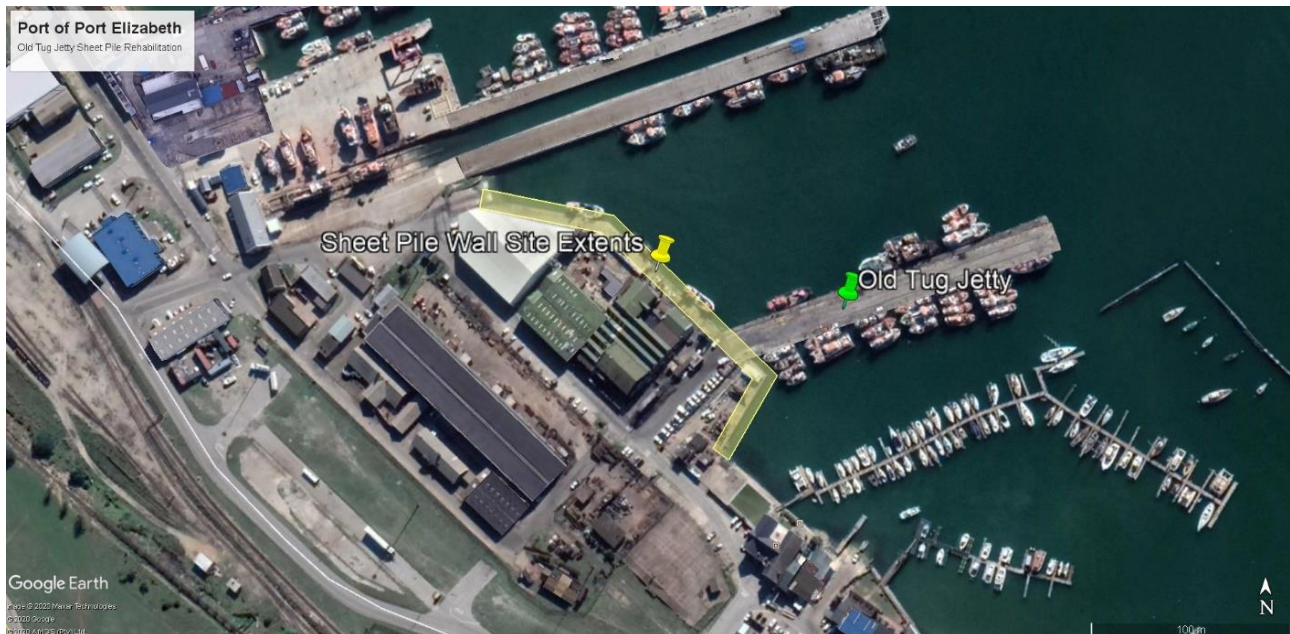


Figure B.2: Extents of the Old Tug Jetty sheet pile wall within the Port of Port Elizabeth

2 *Employer's Objectives*

The objective of the *Employer* is to obtain reliable and accurate information of the subsurface soil and rock conditions, in order to provide detailed geotechnical information for the design of the various elements of the proposed rehabilitation/development.

The *Contractor* is required to provide the geotechnical investigation services (i.e. test pitting, borehole drilling, in-situ testing, sampling and laboratory testing) to assist the *Employer's* Geotechnical Engineer to carry out a geotechnical investigation of the ground conditions underlying the Site.

A total of **eleven (11) boreholes** are envisaged, of which five (5) will be land-based and six (6) will be water-based. The water-based boreholes shall be drilled from a floating barge/platform on the water using suitable anchorage to secure the barge/platform in a surveyed position. Drilling is anticipated to span over a period of **ten (10) weeks**, using **two (2) drilling rigs**, including construction of the floating barge/platform, inspections and certification.

Washbore drilling with Standard Penetration Tests (SPTs) will be required in the upper unconsolidated soil strata. Undisturbed samples will be taken if the soil conditions permit. Rotary core drilling will be required to advance the boreholes through potentially variable surficial fill/rubble, tertiary -, lagoonal - and estuarine deposits (gravels/boulders, sands, silts and clays) underlain by quartzitic sandstone of the Peninsula Formation, Table Mountain Group of the Cape Supergroup.

Standpipe piezometers shall be installed in selected land-based boreholes.

A photographic record of the core boxes, containing the drilled samples, shall be kept and included in the *Contractor's* Data Pack(s) together with the other required data and records.

Excavation of approximately **ten (10) hand-excavated test pits** will take place over a period of **ten (10) days**, in conjunction with the drilling.

The positions (in terms of the WGS 84 co-ordinate system) and levels (relative to Chart Datum level) of the boreholes and test pits shall be determined by surveying methods.

Samples selected by the *Supervisor*, whilst logging the borehole cores/profiling the test pits, shall be prepared by the *Contractor* and transported to the laboratory for laboratory testing purposes. Laboratory testing of these samples is included in this *Contract*. An additional **four (4) weeks** for completion of the laboratory testing shall be permitted, after submission of the final laboratory instructions and samples.

Fulltime supervision of the *Contractor* shall be provided by the *Supervisor* in order to, amongst others:

- Assist with logistics regarding shipping movements.
- Determine the depths where tests are to be carried out in the boreholes and test pits.
- Instruct where samples are to be taken.
- Specify which tests are to be carried out on which samples.
- Log the borehole cores and profile the test pits.

The Proposed Site Plan included in Annexure A provides an indication of the anticipated borehole and test pit positions. The *Supervisor* can provide alternative positions for boreholes and test pits during the course of the geotechnical investigation as required/deemed necessary.

3 Detailed General Scope of ECC Service Provider

3.1 Geotechnical Investigation Services

This section details the Works that the *Contractor* is expected to provide for the geotechnical investigation of the Old Tug Jetty sheet pile wall in the Port of Port Elizabeth.

Boreholes will be drilled both on land and over water from a floating barge/platform. The *Contractor* shall submit a comprehensive list of plant intended for use during this *Contract*. It is anticipated that a minimum of **two (2) drilling rigs, one (1) for the land-based and one (1) for the water-based drilling, and a floating barge/platform** will be required for the *Contract*. The same drilling, in-situ testing and sampling specifications will apply to the boreholes, irrespective of the borehole location (land-based or water-based).

Additional equipment for test pitting will also be required, e.g. paving breakers and saw cuts.

The *Contractor* shall establish on Site, all facilities, plant and equipment necessary for him to undertake the Works, including establishment on Site of such drilling rigs, all associated drilling and test pitting equipment as well as the floating barge/platform that is necessary to execute the Works.

The *Contractor* shall ensure that this plant and equipment are in a satisfactory mechanical condition for completion of the Works in the specified period. No additional payment will be made for the establishment of additional equipment.

Although there is no present priority for borehole/test pit sequence, this may change during the course of the *Contract*. The *Supervisor* will instruct the *Contractor* of any priorities should they arise.

The end-of-year shut down period may influence the progress of the geotechnical investigation and should be taken into account.

3.1.1 Underground Services/Structures/Features Detection

Prior to the drilling of boreholes (land-based)/excavation of any test pits at specified locations, an indication of the presence of exiting underground services/structures/features needs to be obtained at the proposed locations in order to ensure that existing services/structures/features are not affected or damaged during the geotechnical investigation.

The *Contractor* shall provide all equipment, materials, preparation and personnel on Site required for the detection of underground services/structures/features. These shall be available on a continuous daily basis (for a standard 9-hour working day) until the geotechnical investigation has been completed.

In addition, the *Contractor* shall take photographs of the proposed testing points prior to conducting the investigation. The *Contractor* is responsible for the repair of any damage caused during the investigation. All repairs must be covered by a one year defects liability period and a method statement for the proposed repairs must be submitted for approval prior to undertaking the repairs. The *Contractor* shall assume full responsibility for rectifying possible defects.

3.1.2 Floating Barge/Platform

The *Contractor* shall supply a suitable floating barge/platform for the drilling of the boreholes on the water and anchorage to keep the barge/platform in position at all times. The barge/platform shall at least be of minimum dimensions 6m x 6m working area on top of the water.

The *Contractor* shall mark the positions of all the anchor lines and anchors in a very visible manner by using large orange, floatable markers and lights above the water for the duration of the *Contract* (day and night, including weekends and any/all pay weekend breaks).

Tenderers must familiarise themselves with and meet all the watercraft requirements of the Department of Transport (DOT), South African Maritime Safety Authority (SAMSA) and the Port.

The *Contractor* shall be responsible for complying with Government Gazette, dated 15 April 2002, regarding water environments. The *Contractor* shall ensure that where Work is done over or in close proximity to water, appropriate provisional measures shall be made for:

- Preventing workers from falling into water from the floating barge/platform.
- Ensuring that where a worker is exposed to the risk of drowning by falling into the water, a life jacket is provided and worn by the workers and a method of rescue is available from the floating barge/platform.
- All safety, lighting and equipment to be used on the water shall comply with the requirements regarding watercraft. All safety, lighting, anchor markers, etc. features and/or equipment required must be supplied and maintained for the duration of the *Contract* by the *Contractor* and must be included in the rates tendered.

The *Contractor* shall be responsible for the overall maintenance, safety, training and operating of the drilling crew on the barge/platform.

The *Contractor* shall be responsible for the moving of the barge/platform between set-up positions. No assistance from either the *Supervisor* or the Port authorities will be given in this regard, except with the co-ordination of shipping movements. The *Contractor* shall be responsible for obtaining permission from Port Control requesting permission; copies of all correspondence, i.e. requests and permissions shall be submitted to the *Supervisor* prior to setting-up on a hole and included in the daily records.

A service boat, in a seaworthy condition and meeting the applicable requirements with respect to watercraft, shall be present at all times and shall transport the *Supervisor* to and from the drilling Site as and when required to do so.

The following safety items must be included in the Health and Safety (H&S) plan for the water-based component of the Works:

- All personnel to wear life jackets in addition to the normal Personal Protective Equipment (PPE), i.e. hard hats, reflective vests, safety boots, safety gloves, safety glasses, ear plugs, etc.
- The *Contractor* shall provide a certificate of proof from the DOT and SAMSA regarding the watercraft, equipment and floating barge/platform approval of seaworthiness/fitness before setting up on the first borehole position.
- A means of communication, for example a mobile telephone, must be on the floating barge/platform at all times.

- When towing the barge into position, all towing lines must be kept clear. Drill rods, casings and drilling equipment shall be securely stowed.
- Housekeeping is critical:
 - Drill rods and casings to be stacked in racks.
 - Decks to be clear of ropes, lines, etc.
 - All rescue equipment shall be neatly stowed and ready for use during an emergency.
- Lighting of floating barge/platform and the anchor lines.

3.1.3 Borehole Drilling

The drilling and associated activities shall be carried out in accordance with Standard Specifications for Subsurface Investigations (SANRAL, 2010), and where not covered in the SANRAL Specification, in accordance with British Standard (BS) 5930:1999 Code of Practice for Site Investigations.

Preliminary co-ordinates will be provided by the *Supervisor* in order for the *Contractor's* surveyor to set-out the drilling positions. Where access to a particular position is not possible, the *Supervisor* will give an alternative position on Site. At the same time, the surveyor shall record the elevation (relative to Chart Datum) of the borehole collar (land-based boreholes) and seabed (water-based boreholes). After completion of the setting out, the position (WGS 84 co-ordinate system) and ground level (Z) of the boreholes, as determined by the surveyor, shall be provided by the *Contractor* to the *Supervisor* within one (1) week. The list (X, Y and Z) shall be typed and signed by the registered surveyor, and presented with the Company letterhead. A position accuracy of 0,5m and level accuracy of 0,1m is required for the land-based boreholes, and 2m and 0,1m respectively for the water-based boreholes.

N-size boreholes will be drilled vertically. The maximum depth/length of borehole is expected to not be greater than 50m (measured from natural ground level or the floating barge/platform). The termination conditions for the boreholes will be determined on Site by the *Supervisor*.

Washbore drilling methods will be used from surface or seabed level to depths where refusal occurs. SPTs, at 1,0m depth intervals and commencing at 0m depth, will supplement the washbore drilling. Below washbore/SPT refusal, NWD4 rotary drilling will follow on through the underlying variable fill/rubble, sedimentary deposits (gravels/boulders, sands, silts and clays) followed by quartzitic sandstone of the Peninsula Formation, Table Mountain Group of the Cape Supergroup.

For the purposes of this *Contract*, gravels and boulders are defined as hard aggregate having an Unconfined Compressive Strength (UCS) of greater than 25MPa, average typical dimension of between 50mm and 300mm, and which moves during drilling (resulting in difficult drilling conditions and slow progress).

The drilling shall be carried out using rotary "mud" drilling techniques to minimize disturbance of the subsurface materials. Any drilling muds or additives used by the *Contractor* shall be approved by the *Supervisor* prior to their use, for environmental reasons.

Washboring techniques using open-ended pipes or downward facing water jets shall not be permitted. Only biodegradable drilling aids shall be employed. The *Contractor* is required to produce documentary proof of this fact prior to commencing any drilling. The use of drilling aids in any borehole shall specifically be noted on the Daily Site Diary. Drilling aids shall be properly disposed of after use, to the satisfaction of the *Supervisor*.

N-size diamond drilling is required in competent soils (if encountered), the gravel/boulder layers and the rock. Such drilling shall be by means of NXM, NWD4 or similar sized core barrels.

In boring through permeable materials, the *Contractor* shall avoid any unnecessary disturbance to the material and shall ensure that the drilling fluid in the hole is maintained slightly above the water table.

The drilling rods, core barrel and any close fitting drilling or sampling tools shall be withdrawn slowly to avoid suction pressures arising in the borehole. Drilling fluid shall be added wherever necessary to maintain the required level of drilling fluid in the hole during rod pulling operations.

Only proprietary core barrels shall be used, unless otherwise approved by the *Supervisor*. All accessories and spare parts shall be as supplied or recommended by the manufacturer. Sufficient spares for core barrels, accessories and core bits shall be available for use on Site without causing any delay to drilling operations. The condition of the core bit in use shall be carefully monitored and if any damage occurs, such as breaking of teeth, it shall be replaced immediately.

The use of casings (temporary) shall be at the discretion of the *Contractor* and shall be used to prevent collapse of the boreholes. When a hole is being cased, the bottom of the casing shall always be maintained at approximately 150mm above the bottom of the boring. The casing shall never be allowed to be in advance of the bottom of the borehole during boring or sampling.

The *Contractor* shall take all necessary measures to support the sides of the hole at all times. Collapse of holes shall be minimised by using appropriate drilling techniques, including maintaining adequate flush quality. Re-drilling through collapsed ground, including gravels and boulders, and any surface damage relating to collapsed ground shall be at the *Contractor's* expense.

Only standard nominal lengths of casings and drill rods shall be used. The mixing of standard nominal imperial and metric lengths shall not be permitted.

Where the soil conditions permit, Shelby Tube samples will be taken.

A record of the observations of the flush returns, including the depth of any sudden colour change, change in material arising in the flush and the flush return shall be included on the *Contractor's* drilling record.

Standpipe piezometers will be installed in selected land-based boreholes. In addition to installation, water table levels will be required to be recorded by the *Contractor*.

Prior to core logging and sampling, which will be carried out by the *Supervisor*, the *Contractor* will be required to photograph the core boxes containing the drilled cores (in addition to SPT and Shelby Tube samples where present).

The samples selected for testing by the *Supervisor* shall be prepared for storage and transportation by the *Contractor*.

The records of the drilling as well as the results of the in-situ field tests and laboratory tests shall be presented in a data file.

All land-based boreholes (which do not have any instrumentation to be installed/after removal of instrumentation) and re-circulation sumps shall be backfilled with a soil-cement-bentonite mixture within one working day of completion of the hole.

Due to the potential loss of fines within the sheet pile backfill, the installation of permanent Polyvinyl Chloride (PVC) casings might be required prior to borehole backfilling (either with soil-cement-bentonite grout and/or “gravel pack” where standpipe piezometers are required) in order to prevent excessive loss of backfilling material to the voids. Where standpipe piezometers are to be installed, the bottom 5m of the permanent PVC casing shall be slotted to enable water infiltration.

People employed on the Site should be sufficiently trained to perform the required tasks. Details of the training and competence of the labourers shall be available on Site. The *Employer* reserves the right to instruct the *Contractor* to replace labourers should dangerous or reckless practices be witnessed.

3.1.4 Standard Penetration Test (SPT)

The SPTs shall be carried out at 1,0m depth intervals, in accordance with the standard specifications. The samples shall be wrapped in plastic sleeves and placed in the core boxes in the sequence of recovery from the Raymond Spoon. Should the material in the Raymond Spoon sample change, the different soils must be separately wrapped with the depth intervals recorded accordingly. The recovered SPT samples shall be clearly and indelibly marked to define the beginning and end of each test using a strip of wood, hardboard or other suitable material. The top and bottom of each test shall be denoted by the insertion of a wooden block at the appropriate position in the core box, clearly marked with the appropriate depth.

The following information shall be indelibly printed and placed with the sample in the core box:

- Borehole number.
- Depth range of the sample.
- SPT blow counts.

3.1.5 Shelby Tube Samples

Shelby Tube samples shall be taken in accordance with the standard specifications, at depths as directed by the *Supervisor*.

The largest possible diameter to fit the N-size borehole shall be used. The length of the tube shall be such that a 600mm length sample can be recovered. All tubes to be used shall be to the satisfaction of the *Supervisor*, and after use, may be claimed from the soil-testing laboratory by the *Contractor*.

Immediately after removal of the Shelby Tube from the borehole and approval of the sample length has been given by the *Supervisor*, the surfaces of the sample shall be sealed with microcrystalline wax to a thickness of not less than 10mm by the *Contractor*. The wax shall not be boiled during the melting.

The tubes shall be marked top and bottom with the appropriate depths and borehole number, and placed in the core box until photographed, whereafter the samples will be sent for testing.

3.1.6 Core Sample Preparation

Core recovered by rotary diamond drilling shall be sealed in plastic sleeves and stored in core boxes as specified above. A minimum core recovery of 80% will be accepted for coring. Where this is not achieved, the *Contractor* shall recover samples of the matrix material using other suitable techniques.

The *Supervisor* shall select pieces of core for laboratory testing. Samples that are to be tested are to be tightly wrapped in a layer of cling film and then sealed with wax to a thickness of not less than 10mm. The wax shall not be boiled during the melting process. A second layer of cling film and wax shall then be applied, whereafter a card stating the sample details shall be placed on the sample so that the details are clearly visible before a third layer of cling film is wrapped around the sample.

3.1.7 Standpipe Piezometer

Where instructed by the *Supervisor*, the *Contractor* shall install piezometers in the boreholes (land-based boreholes). All drilling mud shall be flushed from the borehole with water until the water return is clear and to the satisfaction of the *Supervisor*. Due cognisance of the environmental specifications shall be taken for the treatment of the flushing water.

The piezometer shall comprise a 25mm diameter PVC pipe. The bottom 5m shall be slotted and wrapped in a geofabric sleeve. The entire length of standpipe shall be surrounded by a "gravel pack" comprising clean, coarse sand. The upper 0,5m of the borehole annulus shall be sealed with a cement-bentonite plug. The top of the standpipe shall protrude 100mm above the ground level, and be sealed with a plastic cap.

Water table rest levels shall be recorded approximately 24 hours and 48 hours after completion of the installation of the piezometer, and the readings included on the driller's log sheet.

Upon completion of the measurements, and at the discretion of the *Supervisor*, the standpipe shall be cut flush with the ground level and sealed with cement-bentonite.

3.1.8 Core Boxes

For the storage of all cores/samples, suitable core boxes made of timber or other approved material capable of storing 7,5m of core each shall be provided by the *Contractor*, in accordance with the standard specifications. The core box shall be of suitably robust construction, and be provided with a bolt-down type lid. Prior to usage, the *Contractor* shall provide the *Supervisor* with a sample of the core boxes for approval.

The core/samples shall be placed in core boxes in book order and shall be clearly and indelibly marked to define the beginning and end of each drill run and any other intermediate depths required by the *Supervisor*. Each line of core/samples in the core box shall be separated from the adjoining line by a rigid strip of wood, hardboard or other suitable material. The top and bottom of each drill run shall be denoted by the insertion of a wooden block at the appropriate position in the core box, clearly marked with the appropriate depth. Any point, at which a known core loss occurred, shall be similarly marked by means of a wooden block. Only core samples from one drill hole shall be placed in any particular core box. Friable material must, if necessary, be placed in a plastic sleeve before being placed in the core box.

The following information shall be indelibly printed on the lid of the box, using a stencil or similar type of lettering device, approved by the *Supervisor*; no free hand writing shall be allowed:

- *Contractor's* name.
- Project name.
- Borehole number.
- Box number and total number of boxes, e.g. "Box 1 of 2".
- Depth range contained in box.

Each core box shall be clearly marked on one long side and both short sides with the borehole number and box number.

3.1.9 Core Photography

Core photography shall be provided for all the boreholes drilled under this *Contract*, in accordance with the standard specifications. Prior to commencing the photography, the *Contractor* shall provide the *Supervisor* with a sample of a photograph for approval.

The core boxes shall be photographed by the *Contractor* prior to the *Supervisor* commencing with the core logging.

The photographs are to form part of the drilling record and shall be included in the Data Pack(s).

3.1.10 Test Pitting

Preliminary co-ordinates might be provided by the *Supervisor* in order for the *Contractor's* surveyor to set-out the test pit positions. Where access to a particular position is not possible, the *Supervisor* will give an alternative position. Should preliminary co-ordinates not be provided, the *Supervisor* will set out the positions of the test pits on Site.

Test pits shall be terminated at a maximum depth of 1,5m below natural ground level or as instructed by the *Supervisor* on Site. Test pits shall be terminated at a shallower depth if any of the following occurs:

- Side walls begin to collapse into the test pit thereby causing a Health and Safety risk.
- Excess groundwater inflow is encountered, thereby causing running of soil materials into the test pit.
- Obstructions are encountered that cannot be excavated.
- Any services/structures/features are encountered in the test pit.

If the depth of the pit is less than 1,5m at the time of termination, an alternative position may be instructed by the *Supervisor*.

Upon termination of the test pit, the pit shall be profiled by the *Supervisor*, and sampled by the *Supervisor* with the assistance of the labourer provided. Thereafter, and on the same day, the test pit shall be backfilled with the material excavated from the test pit.

Material shall be placed in approximately 500mm layers and then firmly compacted using a mechanical compactor. All reasonable efforts shall be made to ensure that all excavated material is replaced in the test pit and, where necessary, the reinstated material shall stand slightly proud of the original ground level. If topsoil was present at the test pit, this shall be reinstated at the surface. Where material from different layers has been stockpiled separately, these shall be reinstated in the reverse order in which they were excavated. Where test pits have been excavated through existing pavement layerworks, these shall be reinstated to its original condition.

The *Contractor* shall take photographs of the proposed testing points prior to conducting the investigation and shall submit a method statement for approval of the proposed repair philosophy. All repairs shall be covered by a one year defects liability period with the *Contractor* assuming full responsibility for rectifying possible defects.

All reasonable efforts shall be made to ensure pits are excavated and backfilled in one operation. Where a test pit is to remain open due to unforeseen circumstances, suitable barriers and warning signs shall be placed by the *Contractor*.

The sequence of working shall be such to minimise travel time between test pits so that as many test pits as possible can be excavated in a day. The *Contractor* shall take all reasonable steps to ensure that the labour, tools and equipment are employed efficiently in excavating and reinstating test pits.

After completion of the test pitting, the position and ground level (X, Y and Z) shall be determined by surveying methods in accordance with the WGS 84 co-ordinate system and Chart Datum. A position accuracy of 1m and level accuracy of 0,1m is required. The *Contractor* is to provide the *Supervisor* with the list of co-ordinates and levels within one week of completion of the test pitting. The list shall be typed and signed by the registered surveyor, and presented with the Company letterhead.

The *Contractor* shall provide full-time, competent, experienced and trained labour (at least 1 labourer), with a shovel and sampling bags) to assist the *Supervisor* with soil sampling from the excavated test pits. Both small (1kg to 2kg) and large (two (2) bags per sample, each approximately 25kg) disturbed samples shall be taken by the *Contractor* as directed by the *Supervisor*. Undisturbed samples will be guided by the *Supervisor* and will form part of the compliment of samples to be tested.

All tools (e.g. saw cuts and paving breakers), labour, assistance with sampling, removal of excess soil, concrete, waste and debris, backfilling and compaction in layers using a mechanical compactor, making up the shortfall of material, reinstatement of existing layerworks, sweeping and cleaning the immediate surrounds of the test pit area and accommodation of traffic will be at the *Contractor's* expense.

People employed on the Site should be sufficiently trained to perform the required tasks. Details of the training and competence of the labourers shall be available on Site. The *Employer* reserves the right to instruct the *Contractor* to replace labourers should dangerous or reckless practices be witnessed.

Dynamic Cone Penetrometer (DCP) Tests will be performed at selected test pit positions (after removal of any surfacing and gravel base course layers), from both the existing ground level as well as from a reduced level in the test pit.

The records of the test pitting as well as the results of the in-situ field tests and laboratory tests shall be presented in a data file.

3.1.11 Hand-held Dynamic Cone Penetrometer (DCP) Testing

DCP tests will be done at selected test pit positions (after removal of any surfacing and gravel base course layers where required), from both the existing ground level as well as from a reduced level in the test pit.

DCP tests shall be in accordance with the South African standardised method, that being an 8kg mass falling through a distance of 575mm, with a 60 degree cone. Tests shall be carried out by competent personnel, at locations selected by the *Supervisor*, to a depth of 1m.

Since the evaluation and analysis of the results will be done by the *Client's* Engineer, only the advance of the cone per every 5 blows of the test is required to be provided, i.e. a typed version of the field records. All results (a copy of the field records and the typed version) shall be presented in an electronic format within one week of completing the fieldwork.

3.1.12 Storage of Samples

The *Contractor* shall, at the end of each day, transport the samples from the Site to a suitable covered storage shed provided by the *Contractor*.

During temporary storage, all precautions against possible loss or damage (wilful or accidental) as well as damage due to the elements shall be taken.

The temporary store, supplied by the *Contractor*, shall be weatherproof and to the satisfaction of the *Supervisor*. Minimum height between lowest boxes in stacks and floor of the temporary storage shall be 100mm. Transport of these samples to the permanent storage facility must take place at appropriate intervals as directed by the *Supervisor*.

A suitable facility for logging and photography shall be provided by the *Contractor* at the temporary storage area.

3.1.13 Transport of Samples/Cores

Samples and cores shall be transported in such a way so as to preserve the relevant conditions of soil and rock samples that were present after the sample had come out of the drilling barrel/test pit/sampling tool.

3.1.14 Survey

The *Supervisor* shall be responsible for the setting out of the positions of the boreholes and test pits. The *Contractor* will provide the *Supervisor* with a list of co-ordinates (WGS 84 co-ordinate system) and levels (relative to Chart Datum) within one week of completion of the last borehole/test pit. The list shall be typed and presented with the Company letterhead.

3.2 Laboratory Testing

The *Contractor* shall be responsible for the delivery/collection of the samples for laboratory testing, and for the presentation of the laboratory test results in both paper and electronic format.

The *Supervisor* shall be responsible for the testing instructions for each sample.

All tests must be carried out by a South African National Accreditation System (SANAS) accredited testing laboratory, accredited for "Civil Engineering Testing". In this regard, the *Contractor* shall submit a valid SANAS "Certificate of Accreditation" for "Civil Engineering Testing" together with the "Schedule of Accreditation", or certified copies thereof, to the *Project Manager* for acceptance. Failure to comply with this strict requirement will result in the *Contractor* not being able to proceed with the laboratory testing.

The tests shall be carried out as described in the standard specifications. Where multiple testing methods are presented, the *Contractor* shall inform the *Supervisor* in order that the most suitable test method may be selected so as to ensure consistency across samples and reliable comparison between different material samples.

A brief description of the sample being tested shall be made for every sample being tested and included on the laboratory test report. The laboratory test results are to include all the data that is required in the relevant standard. All results shall be fully typed and any graphs or charts computer generated.

Provision has been made in the *Bill of Quantities* for the samples to be collected from Site/delivered to the laboratory at regular intervals during the investigation period. The *Contractor* will be responsible for these logistics.

The laboratory test results shall be made available within **four (4) weeks** of the sample being submitted to the laboratory.

Unused sample and untested samples shall be stored at the laboratory for the duration of the *Contract* defects period.

The list of laboratory tests envisaged is given below:

- Foundation Indicator test; including:
 - Natural Moisture Content.
 - Sieve and Hydrometer analysis.
 - Atterberg limits.
- Maximum Dry Density and Optimum Moisture Content (Mod. AASTHO effort).
- California Bearing Ratio (soaked/neat/untreated).
- Dry bulk density tests.
- Specific Gravity tests.
- Shear box tests (remoulded soil).
- USC and E on rock samples.
- Triaxial tests:
 - Consolidated undrained.
 - Consolidated drained.
- Mineralogy analysis.
- Angularity/roundness examination.
- Carbonate content determination.
- Organic content determination.
- Durability test.

3.3 Records

This section relates to the preparation and submission of records of Works during the investigation. The contents of the Data Pack(s) are dealt with under Quality Management.

3.3.1 Daily Site Diaries

Daily progress diaries shall be submitted on a daily basis. These must be on pre-printed pro forma sheets and indicate as a minimum:

- List of equipment on Site, mobilised to Site or demobilised from Site on that day. As a minimum, “equipment” shall include a floating barge/platform, drilling rigs and major items of specialist drilling equipment.
- List of staff from the *Contractor* and any *Sub-Contractors* on Site and the man-hours worked by each staff member. The list shall include, by name, the *Contractor's* site agent, supervisor in charge of the floating barge/platform, drilling rigs, drill rig operators, Safety Officer, Environmental Officer and Quality Assurance (QA) managers. Laboratory technicians and labourers need not be listed by name. Man-

hours for staff from *Sub-Contractors* under the control of the *Contractor* such as security staff, surveyors, etc. shall also be included.

- List of major Work activities undertaken on that day.
- List of any Health and Safety or environmental incidents occurring on that day.
- List of any delays to the project occurring on that day.
- List of any significant occurrences during that day.
- Weather conditions, e.g. wind, rain, etc.

The form to be used shall be submitted for approval prior to commencement of Work. All daily diaries shall be submitted as documents in accordance with the approved QA plan.

The Daily Site Diary shall be accepted as a substantial record of the operations on Site and it is in the *Contractor's* interest to ensure that these are as detailed as possible. Claims for extension of time (and any other claims) that the *Contractor* may have will be based on these records. Should the *Contractor* not supply Daily Site Diaries within the stipulated period, the *Supervisor* shall have the right to instruct the *Contractor* to stop Work with the particular unit of equipment until all the outstanding Daily Site Diaries have been supplied. Additionally, the *Supervisor* has the right to reject any claim from the *Contractor* which cannot be substantiated by Daily Site Diaries in the *Supervisor's* possession.

3.3.2 Site Borehole Records (Driller's Borehole Drilling Logs)

Site Borehole Records shall be submitted each day and contain details of the borehole drilling and testing Works carried out the previous day. The Site Borehole Records shall contain the following minimum information:

- *Contract* title.
- Borehole number.
- Date.
- Equipment and methods being used.
- Personnel used to drill the hole.
- Details of any services/structures/features encountered.
- Results of all in-situ tests. SPT results shall include blow counts for each test increment.
- List of all samples taken.
- Depth of Shelby Tube samples, including the penetration distance into the soil (in mm) and the length of the sample recovered in the tube (in mm). This shall include all Shelby Tube samples where there is no or low recovery in the tube or where pushing of the sample was unsuccessful.
- The final depth of the hole (or for holes carried out over a number of days, the depth at the end of the day being reported).
- Details of any time spent where the equipment or personnel were not advancing the hole (including stoppages and delays), the reasons therefore and the actual times.
- Any other observations on activities at the hole.
- Details regarding moving between borehole positions and set-up.
- Borehole diameter.
- Flush type.
- Method of drilling.
- Casing depth and diameter.
- Observations on the soil and rock material in the hole.
- Depths of any rock fill or boulders drilled through.
- Observations on the groundwater in the hole.

- Observations on flush returns (amount, colour, etc.) during drilling.
- Depths and time taken for each core run.
- Approximate core recovery during rotary coring and the approximate depths of any core loss.
- Details of backfilling of the borehole or instrumentation installed.
- Water table level reading in standpipe piezometers.

3.4 Site Access Limitations

As the Site is located in the Port of Port Elizabeth, specific security, permit and induction requirements are relevant to working on the Site. The details will be covered during the compulsory Tender Clarification Meeting and Site Inspection.

The drilling positions for land-based boreholes/test pit positions have drive-on access. The launching arrangements for the support craft servicing of the floating barge/platform will be covered during the compulsory Tender Clarification Meeting and Site Inspection.

Unless otherwise stated by the *Supervisor*, the *Contractor* shall use existing roads in the Port and roads created by the *Contractor* (where applicable). The *Contractor* shall not drive vehicles off established access roads without the specific prior written instruction. Where Sites cannot be accessed by vehicles, it shall be required of the *Contractor* to make alternative arrangements (i.e. carry equipment, etc.).

3.5 Constraints on how the Contractor Provides the Works

The position of the *Contractor's* laydown area for plant and equipment, as well as the *Supervisor's* office and latrine(s) will be covered during the Tender Clarification Meeting and Site Inspection. No camping is allowed on the Site.

The *Contractor* will not have the exclusive use of the Site for the duration of the *Contract*. The *Supervisor* will determine the sequence at which boreholes shall be drilled/test pits shall be excavated in consultation with Port Control and based on the *Employer's* requirements and any Site restrictions. Shipping movements will take priority in any and all decisions taken in this regard. Drilling rig movements shall be kept to a minimum where possible. Specific requirements for each borehole/test pit will be given on Site by the *Supervisor*.

Normal working hours are Mondays to Fridays, from 07h00 to 17h00. Works will not be permitted during the course of any weekend and public holiday without permission by the *Project Manager*. Permission to work shall be requested in writing at least 2 weeks prior to the particular weekend/days. Permission is not necessarily guaranteed and will be dependent on the nature of the Works to be done and availability of the *Supervisor* and other staff.

3.6 Site Services and Facilities

3.6.1 Facilities Provided by the Employer for the Contractor

Table B.5: Facilities provided by the *Employer* for the *Contractor*

Item	Date by which it will be provided
Details related to the <i>Contractor's</i> laydown area for the offices and toilet facilities will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission

Details related to water and electricity will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission
Details related to an area for the construction of the floating barge/platform and launching/mooring of the service craft will be discussed at the Tender Clarification Meeting and Site Inspection.	Prior to Tender submission
Security will be at the <i>Contractor's</i> expense.	<i>Contract</i> commencement
No As-built drawings are available of any subservices/structures/features, i.e. cables, watermains, etc. The <i>Contractor</i> shall make provision for a detector of underground services/structures/features.	<i>Contract</i> commencement

Wherever the *Employer* provides facilities (including, *inter alia*, temporary power, water, waste disposal, etc.) for the *Contractor's* use within the Working Areas and the *Contractor* adapts such facilities for use, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

3.6.2 Facilities Provided by the Contractor for the *Project Manager* and *Supervisor*

For the *Client*, the *Contractor* shall provide a lockable office with desks two (2) and four (4) chairs, chemical toilet(s) and suitable facilities for all meetings to be held on Site. No suitable connection to an existing sewerage system is feasible; chemical type toilets or similar shall therefore be used throughout. Separate toilet facilities and offices shall be provided for the *Contractor's* staff and the *Supervisor*.

Toilet facilities of a sufficient number (as indicated in the Project Health and Safety Specification) shall be provided for the *Contractor's* staff by the *Contractor*. Portable toilets shall be provided at all Sites where distances to the laydown area are great and it would be impractical for the *Contractor's* staff to use facilities at the laydown area during the working day. The *Contractor* shall move toilet facilities to new positions as required.

Outside toilets should be provided with locks and doors and should be secured to prevent them from blowing over. The toilets should not be placed in areas susceptible to flooding. The *Contractor* should arrange for regular servicing of toilets and will be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the *Supervisor*.

No connection points for electricity, potable water and landline telephones are available on Site. The *Contractor* makes his own arrangements for the connection of such services to his Work Site, for his use when providing the Works.

The *Contractor* provides the required security measures on Site and in his Working Areas until Completion.

The *Contractor* shall provide, maintain, move to new positions as required and finally remove, proper shaded areas on the Site for eating areas. These shall be designed to be signed off by a Professional Engineer appointed for temporary Works.

The *Contractor* shall provide office accommodation, laboratories, storage facilities, vehicles, office equipment, etc. as required to provide the Works.

Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of equipment, involving, *inter alia*, offices, accommodation, laboratories, materials storage, compound areas, etc. within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of equipment.

Unless expressly stated as a responsibility of the *Employer*, Site services and facilities, all residual requirements for the provision of facilities and all items of equipment necessary for the *Contractor* to provide the Works remains the responsibility of the *Contractor*.

3.7 Specifications

The following list of standard specifications (latest edition) is applicable to the Works:

- South African Institution of Civil Engineering (SAICE): Site Investigations Code of Practice, January 2010.
- SANRAL (2010) – Standard Specification for Subsurface Investigations.
- BS 5930 – Code of Practice for Site Investigations.
- TMH 1 – Standard Methods of Testing Road Construction Materials.
- BS 1377 – Methods of test for soils for civil engineering purposes.

3.8 Management Meetings

It is the *Employer's* specific intention that the Parties and their agents use the techniques of partnering to manage the *Contract* by holding meetings designed to pro-actively and jointly manage the administration of the *Contract* with the objective of minimising the adverse effects of risks and surprises for both Parties.

Separate meetings for specialist activities such as programming, engineering and design management, may be warranted.

Regular meetings of a general nature shall be convened and chaired by the *Project Manager* or a delegated representative as follows:

Table B.6: Management meetings

Title and purpose	Approximate time and interval	Location	Attendance by:
Kick-Off Meeting	Prior to Commencement of Work	Site office or as mutually agreed from time to time	<i>Employer, Contractor (key persons) and Project Manager (appropriate delegates)</i>
<i>Contract</i> Progress Meeting	Fortnightly	Site office or as mutually agreed from time to time	<i>Employer, Contractor (key persons) and Project Manager (appropriate delegates)</i>
Risk Register and Compensation Events	Weekly	Site office or as mutually agreed from time to time	<i>Project Manager (and appropriate delegates), Supervisor (and</i>

			<i>appropriate delegates) and Contractor (appropriate key persons)</i>
Monthly SHE meeting	Monthly	Site office or as mutually agreed from time to time	<i>Employer, Project Manager (and appropriate delegates), Contractor (line management, Site Supervisor, safety officer, environmental officer and safety reps)</i>
Safety Visible Felt Leadership Walkabout	Weekly	On Site	<i>Project Manager (and appropriate delegates) and Contractor (appropriate key persons)</i>
Safety Committee Meeting	Every second month	Site office or as mutually agreed from time to time	<i>Employer, Contractor (key persons) and Project Manager (appropriate delegates)</i>

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the Works. Records of these meetings shall be submitted to the *Project Manager* by the person convening the meeting within five (5) days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the *Contract* as these shall be done separately by the person identified in the *Conditions of Contract* to carry out such actions or instructions.

The *Contractor* shall provide suitable facilities for all meetings held on Site.

The *Contractor* attends management meetings at the *Project Manager's* request. At these meetings, the *Contractor* presents all relevant data including safety, health and environmental issues, progress reports, quality plans and *Sub-Contractor* management reports.

3.9 Planning and Programming

The *Contract* programme, progress reports, subsequent updates, revisions and supplementary programmes as detailed in this section are an essential part of the project control system used by the *Employer* for managing the Works and in monitoring progress of the Works. Key dates and completion dates, as defined in the *Contract Data*, are incorporated into the programme.

3.9.1 Contract Schedule

The *Contractor's* detailed programme, which complies with the requirements as indicated in the Works Information, shall be submitted in both hard and soft copy forms. Primavera P6 version is being used by the *Employer* for planning on the project. The activity durations are estimated in working days and shall be realistic

and based on quantities and applied resources. The calendars used are based on normal working hours per day and working days per week, or as prescribed by the *Project Manager*.

3.9.2 Network

- a. The Critical Path Method (CPM) technique of planning and scheduling will be used for the project. The *Contractor* shall provide a programme showing the critical path(s), together with a total float report for acceptance by the *Project Manager*.
- b. The programme network shall have no fewer activities than the technical and commercial breakdowns listed in the activity programme.
- c. Networks are constructed to reflect the sequence of activities, using resource scheduling to stagger the performance of activities into the most probable sequence.
- d. The activity durations are estimated in working days and shall be realistic and based on quantities and applied resources.
- e. The calendars used are based on normal working hours per day and working days per week, or as prescribed by the *Project Manager* in accordance with the *Contract*.

3.9.3 Structure and Methodology

The programme layouts shall take into account the approved Work Breakdown Structure (WBS), reflecting the manner in which the Works are to be performed. The following levels of programme are to be used for this project:

- a. Level 1 Master Programme - defines the major activities and interfaces between engineering, procurement, fabrication and construction, transportation, installation, and pre-commissioning, commissioning, and start-up. This is a high level summary programme, and is included in the monthly progress report.
- b. Level 2 Project Programme - summary programme "rolled up" from the level 3 project programme. The structure and layout will be in accordance with the FBS as defined in the Level 3 programme.
- c. Level 3 Project Programme - detailed programme, which is generated for tracking and control of various activities and deliverables for all phases of the project. The activities will be coded in accordance with the FBS. Various layouts and corresponding filters can be developed to reflect the requirements of the project leads and managers.
- d. Level 4 Project Programme - This detailed, discipline-specific programme is developed and maintained by the *Contractor* and generated for tracking and control of various activities and deliverables for all phases of the project. This programme utilizes the WBS structure and relates to the programmed activities in the pricing activity programme or groups of activities. The programme represents the day-to-day activities by discipline that are work-unit based and become summarized in the Level 3 activities.

3.9.4 Progress Reporting and Reports

- a. To demonstrate the actual progress and forecast completion of the Works, the *Contractor* shall, on a weekly basis, update and submit to the *Project Manager* the latest accepted programme and progress report, including histograms and s-curves.
- b. Monitoring and review of the progress of the Works shall consist of an assessment of all activities currently in progress to determine percentage complete, forecast completion dates, manning histogram, showing plan versus forecast, deviations from the target programme and actions required for remedy.
- c. Weekly progress review meetings shall be conducted to report and assist control of the Works.

3.9.5 Reports

- a. Level 4 Programme - updated weekly, showing two separate bars for each task, i.e. the primary bar shall reflect the current forecast dates and the secondary bar the latest accepted programme.
- b. 3-Week Look-Ahead Programme - in the same format as above, updated and issued weekly.
- c. Manpower Histogram - updated and issued weekly, showing actual, forecast and planned manpower utilization.
- d. S-curves - updated and issued weekly, showing actual % complete versus planned % for the overall *Contract* and utilizing the earned values as calculated by the detailed progress report.
- e. Detailed progress report - updated and issued weekly, utilizing a spreadsheet to calculate earned progress of activities, as reflected on the Level 4 programme, based on installed quantities. Activities shall be weighted using man-hours. Report shall indicate progress 'this period' and 'progress to date'.
- f. Weekly report - a narrative report consisting of an executive summary, area/facility synopsis of the Works that are in progress and critical action items (top 10). The report shall be accompanied with a 3-week look-ahead programme and s-curve. A weekly Health and Safety report shall be submitted.
- g. Monthly report - a narrative status report submitted a week before the last Friday of each month, or as required by the *Project Manager*. The report shall include, but not be limited to, the following:
 - i. Summary of progress achieved during the reporting period.
 - ii. Latest updated programme.
 - iii. Project milestones table – planned versus actual and forecast.
 - iv. Status and performance of on-Site Works.
 - v. Status and performance of off-Site Works.
 - vi. Histograms and s-curves.
 - vii. Critical action items list (top 5).
 - viii. Health and safety monthly report.

A programme is required to be submitted with the Tender submission, and thereafter in accordance with the intervals prescribed in the NEC *Contract* documentation.

After *Contract* award, the *Contractor* shall be required to submit a fully Integrated Programme for Acceptance, as project baseline, by the *Project Manager*.

The methodology envisaged in creation of the programme should take into account, but is not limited to, the following:

- i. All planning is done based on the Critical Path Method (CPM). The programme shows the critical path clearly.
- ii. The programme layout takes into account the approved Work Breakdown Structure (WBS), reflecting the manner in which the services are to be performed and how control data are to be summarised, reported and monitored.
- iii. Time analysis - Manipulation of "lags", "overlaps", "leads", "relations" or "dummies" to cause the float to remain constant when updates are performed, is not acceptable.
- iv. Planning networks -The *Contractor* provides the programme logic in network format, together with a total float report for acceptance by the *Employer*. The calendar(s) used is/are based on agreed working hours per day and not exceeding agreed hours per week. Any changes to this are submitted to the *Employer* for acceptance.
- v. The *Contractor's* programme shall include, but not be limited to, the following in compliance with the *Contract* requirements:

- The working days per week, shifts per working days and holidays.
- Where multiple calendars are used, this information shall be provided for each of the calendars, accompanied by a schedule indicating the calendar applicable to each activity.
- A native document to be submitted which explains the development of the project schedule e.g. risks, schedule opportunities, assumptions, etc.

3.10 Cost Management

The *Contractor* shall provide a cost management service that shall include (but not be limited to) budget allocation, forecasting, estimation to *Completion*, displaying commitments (status and forecasts), actual spends, change, potential change, risk quantification and costing. The entire *Contract* and project information shall provide the *Employer* with an accurate description of the project costs at any point in time. This information shall be reviewed and incorporated into other project systems/tools to improve the accuracy and auditing of reporting.

All cost assessment, evaluation, approvals and rejection shall be counter signed by a Transnet employee with the required delegation before being submitted to Finance for processing. In addition, all claims and certificates shall have supporting evidence attached before progressing by the *Employer*.

The *Contractor* manages all costs applicable to this project in conjunction with the *Employer's* inputs. All changes or issues resulting in changes to the Price of various *Contracts* (construction *Contracts* and Suppliers purchase orders) managed by the *Contractor* shall be discussed and agreed with the *Employer* prior to implementation.

The *Contractor* is responsible for the following:

- Submit a detailed cash flow forecast to the *Employer* within fourteen (14) days after *Contract* award aligned to schedule and procurement activities. The cash flow must be updated and submitted monthly when submitting monthly payment application to the *Employer* (if applicable).

3.11 Documentation Control

The *Contractor* provides documentation in accordance with the requirements of the *Contractor* Documentation Submittal Requirements and the *Contractor* Documentation Schedule (CDS) and makes specific reference thereto within his Quality Management System and Quality Procedures.

The *Contractor* Document Submittal Requirements is contained within Annexure B (*Contractor* Documentation Submittal Requirements) of the Works Information. A standard *Contractor* Documentation 'Starter Kit' will be issued to the *Contractor* upon award and consists of the following:

- Standard Project Drawing Sheet.
- *Contractor* Document Register (DOC-FAT-0002).
- A4 Review Coversheet for Documents (DOC-FAT-0067).
- Document Deliverable Matrix (DOC-FAT-0075).

The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Contractor*.

Each supplier of documentation and data to the project is responsible for ensuring that all documentation and data submitted conforms to the project standards and data Quality requirements in terms of numbering, uniqueness, Quality, accuracy, format, completeness and currency of information. Data not meeting the project standards and data Quality requirements will be rejected and returned to the *Contractor* for corrective action and re-submission.

Should any change be made to documentation or data, which has already been submitted to the project, then new or revised documentation or data shall be issued to replace the outdated information.

All drawings supplied shall comply with the Computer Aided Design (CAD) Standards, i.e. ENG-STD-0001 – Annexure C.

The *Contractor* shall ensure that the latest versions of the required application software and a suitable “IT” infrastructure is in place to support the electronic transmission of documentation.

Electronic files submitted to the project shall be clear of known viruses and extraneous “macros”. The Supplier of documentation is required to have, at all times, the latest generation of virus protection software and up-to-date virus definitions.

The *Contractor* shall be responsible for the supply of all Sub-Supplier/*Contractor*/Manufacturer, etc. documentation and data related to their package of Work, and shall ensure that these Sub-Suppliers have the capability to supply the necessary documentation and data in the required time-frame and Quality as outlined in the specified standards prior to awarding sub-orders.

The required number of copies of documentation and data shall be as specified in the *Contractor* Documentation Schedule (CDS) - as a minimum three (3) (1 x original + 2 x hard copies), with the corresponding PDF and native file formats upon final submission.

The *Contractor* shall apply “wet signatures” to the original documentation before scanning the signed original and prior to formal submission to the project.

Final issues of all documentation shall be supplied to the project in “wet signature” format along with the associated corresponding electronic native files and PDF renditions.

The *Contractor* shall ensure adequate resources are available to manage and execute the document control function as per the requirements of the project. The *Contractor* shall ensure that a dedicated Document Controller is available for the project.

3.12 Procedure for Submission and Acceptance of *Contractor*’s Documents

The *Contractor*’s documentation shall be issued to the *Project Manager* under cover of the *Contractor*’s Transmittal Note indicating all *Contract* references (i.e. Project Number, *Contract* Number, etc.) as well as the *Contractor*’s Project Document Number, Revision Number, Title and chronological listing of transmitted documentation. Formats of *Contractor* data submitted is dependent on the project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.

The *Contractor* shall deliver both hard copies and electronic media copies (CD Rom) to the *Project Manager* either at the address stated within the *Contract Data* or at the project Site office.

All electronic documentation shall be submitted by the *Contractor* in Adobe Acrobat (.PDF) and native file format.

Acceptance of documentation by the *Project Manager* will in no way relieve the *Contractor* of its responsibility for the correctness of information, or conformance with his obligation to provide the Works. This obligation rests solely with the *Contractor*.

After review, a copy of the original reviewed/marked-up drawing/document, with the *Project Manager's* consolidated comments and document status marked on the *Contractor* Review Label, to be scanned and the copy shall be returned to the *Contractor* under cover of the project's Transmittal Note for revision or re-submittal as instructed.

The *Contractor* shall allow the *Project Manager* two (2) weeks (unless otherwise stated and agreed) to review and respond to the *Contractor's* submission of their documentation, i.e. from time of receipt to the time of despatch. However, Work shall proceed without delay in the event of late return of the documentation by the *Project Manager* with prior notification in writing by the *Contractor*.

On receipt of the reviewed documentation, the *Contractor* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within two (2) weeks. Queries regarding comments/changes should be addressed with the *Project Manager* prior to re-submittal.

Any re-submittals, which have not included the changes/comments identified, will be returned to the *Contractor* to be corrected. The *Contractor* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within two (2) working days of receipt of the marked-up document.

In undertaking the Works (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Documentation Submittal Requirements Standard included in Annexure B (Refer DOC-STD 0001 – Rev03).

3.13 As-built Drawings, Operating Manuals and Data Packs

The *Contractor* provides the following:

- As-built/Final Documentation
 - In undertaking the Works (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Documentation Submittal Requirements Standard included in Annexure B (Refer DOC-STD-0001 – Rev03).
 - All As-built information to be signed off by *Contractor's* responsible Pr. Eng. before issue to the *Employer*.
- Installation, Maintenance and Operating Manuals and Data Books
 - The *Contractor* provides manuals in an A4 hard covered, white, grease and waterproof binder, using 2 ring type binders. The manuals are well indexed and user friendly and include a summarized Table of Contents.
 - Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.
 - The *Contractor* submits the draft Table of Contents to the *Project Manager* for acceptance prior to the compilation and official submittal of the manuals.
 - The originals of all brochures shall be issued to the *Project Manager*. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number

shall be stated, which is best achieved by introducing a separate index page, which cross-references the specific item to a tag number.

- The address, phone numbers, fax numbers and reference numbers of all *Sub-Contractors* are provided.
- Where manuals include drawings that still need to be revised to “As-built” status, and such manuals are required prior to “As-built” status, the manual will not be considered to be in its final form until the “As-built” version of each such drawing has been incorporated.
- The required number of copies of the manual(s) shall be as specified by the *Project Manager* and submitted per type or model number of equipment included in the *Contract*, or as specified by the *Project Manager*.
- A typical example of what the binder/file(s) shall be marked with on the spine and the front cover is as follows:
 - Project Name.
 - Manual Title, e.g. Installation, Maintenance and Operating Manual.
 - Facility Breakdown Structure (FBS) Number and Title.
 - Manual Numbering (e.g. Volume 1 of 2, etc.).
 - *Contract* Number.
 - *Contractor* Name.
- Unless otherwise stated in the CDS, the required number of copies of all As-built/Final/Data Packs shall be:
 - 3 x hard copies (full size).
 - 3 x CD ROM with Adobe Acrobat (.pdf) and native formats.

3.14 Construction Management

The *Contractor* adheres to the Project Health and Safety Specification.

In addition to his responsibilities under the OHS Act, the *Contractor* is responsible for the following:

- Attending Progress Meetings as determined by the *Project Manager* to monitor and report progress.
- Keeping and updating photographic records.
- Preparing and submitting Quality method statement for *Project Manager's* approval.
- Carrying out fieldwork in an approach that will minimize disruption to other Port activities.

The *Contractor* keeps daily records of his people engaged on the Site and Working Areas (including *Sub-Contractors*) with access to such daily records available for inspection by the *Project Manager* at all reasonable times. Daily records should be agreed per diem with the *Project Manager's* delegate or agreed representative.

Use of existing provincial roads shall be limited to an absolute minimum and shall not be used by the *Contractor* as haul roads for fieldwork purposes.

The *Contractor* must exercise due care to avoid damage or disruption to existing services/structures/features (*Contractor* to do assessment of adjacent properties before starting with the Works and submit to the *Employer*). The *Contractor* shall be liable for all claims arising out of any damage caused if the *Contractor* fails to exercise the requisite care and attention in carrying out the Works.

Where the *Contractor* encounters existing underground services/existing services cables/pipe trenches/structures/features, the *Contractor* undertakes the following:

- Stop all operation processes and inform the *Supervisor*.

The *Contractor* shall ensure that all his labour and equipment remains within the fenced off allocated fieldwork area.

All staff and labour working on Site must comply with the *Employer's* operational safety requirements and be equipped with all necessary protective clothing, equipment and high visibility apparel whilst on Site and not within 3m of the railway lines.

Equipment used by the *Contractor* in providing the Works shall comply with the General Machinery Regulation 4 of the Occupational Health and Safety Act (Act 85 of 1993) and without prejudice to the aforesaid act, comply with the certification requirements of *Employer's* Code of Practice No. 29. Operators of equipment shall be in possession of a valid certificate in terms of this Code of Practice.

No labour accommodation shall be allowed within the Port.

The *Contractor* complies with the Construction Environmental Management Plan (CEMP), Standard Environmental Specification (SES), and Project Environmental Specification (PES) in the execution of the Works.

Publicity and progress photographs:

- The *Contractor* provides a notice board with specific details such as *Employer* title, responsible person in charge, emergency contact numbers as well approved safety documentation such as risk assessment at each active Working Area.
- The *Contractor* provides progress photographs at intervals as requested by the *Project Manager*.
- The *Contractor* does not advertise the *Contract* or the project to any third Party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Project Manager*.

The *Contractor* shall obtain all the necessary work permits before starting any excavations and hot work, in accordance with Health and Safety procedures.

The *Contractor* shall, on Completion of his Works, completely remove from Site all his equipment, material, foundations and other structures, erected stores and temporary office accommodation (or any other asset belonging to him) and leave the Site in a tidy condition to the satisfaction of the *Project Manager*.

4 Regulatory Requirements

4.1 Health and Safety Requirements

The *Contractor* must prepare and submit for approval a Health and Safety file in terms of the *Employer's* Health and Safety requirements for *Contractors* working on Transnet property. In terms of this file, the successful Tenderer shall be responsible for the implementation of the obligations contained in the Health and Safety file. A copy of the file shall be kept by the *Employer* and be available on Site.

There are requirements of the *Contractor* in terms of Health and Safety. These are described below:

- Legal Appointments and proof of competencies for the Delegated Authority 16(2), Construction Supervisor 8(7), Construction Safety Officer as well as SHE Rep 17(1) and First Aider (at least level 3 trained).
- First Aid Box with all the required contents.
- Valid letter of good standing for the *Contractor*, a copy of WCL2 form and ID copies for all on Site.
- Safety Daily Task Instruction (Safety Talk) to be done daily before Work commences.
- Health and Safety Plan, including COVID-19 management plan for the *Contractor* in line with the *Employer's* Health and Safety Specification.
- Cost Schedule for Health and Safety, including COVID-19 management.
- Organogram of supporting structure (this document must provide all persons appointed in terms of the OHS Act 85 of 1993).
- Risk Assessment with all the activities that shall be performed on Site.
- Method statement for the tasks.
- Safe work procedure for the tasks.
- Proof that issue register system is in place for PPE.
- Valid medical certificates of fitness done by an Occupational Health Practitioner for all on Site.
- Proof of induction training received.
- Section 37(2) mandatory agreement between *Client* – *Contractor* – *Sub-Contractors*.
- Proof of competency for the drilling operators and their medical certificates of fitness.
- Proof of service for the drilling plant and floating barge/platform.
- Proof of drilling plant and floating barge/platform that is pre-inspected daily before use.
- Proof of alcohol and COVID-19 testing register of all on Site daily done by the trained person.

The areas of investigation are within Transnet property and an induction, which is not expected to be onerous, shall form part of the first day's Work. No Work on Site is permitted until the above documents are approved by the *Employer* and a Site access certificate has been issued by the *Project Manager*.

4.2 Environmental Management

All Work shall be conducted in accordance with the principles of the National Environmental Management Act (NEMA), 1998 (Act no. 107 of 1998) but not limited to other applicable regulations and the accepted environmental good practices. The following documents of the Works Information provide the minimum acceptable standards that shall be adhered to:

- Construction Environmental Management Plan (CEMP) – ENV-STD-001 – Rev04.
- Standard Environmental Specification (SES) – ENV-STD-002 – Rev04.
- Declaration of Understanding.
- Transnet SHEQ Policy Statement.

The *Contractor* shall perform the Works and all fieldwork activities within the Site and Working Areas having due regard for the environment and environmental management practices.

The CEMP provides an integrated approach to environmental management. This approach is designed to guide the appropriate allocation of human resources, assign responsibilities, develop procedures and ensure compliance with regulatory and best practice requirements.

The SES describes the minimum acceptable standard for environmental management for the range of environmental aspects commonly encountered on construction projects and sets environmental objectives and targets, with which the *Contractor* must comply.

The *Contractor* shall, as required by the CEMP, provide activity based environmental method statements for particular planned fieldwork activities at the Site and/or Working Area and/or where requested by the Construction Manager or Environmental Officer.

The *Contractor* shall submit an environmental file to the *Employer* for approval. Details of the environmental file shall be made known post Tender award. No Work on Site shall be permitted until the file is approved.

The *Contractor* shall sign the Declaration of Understanding and the original signed copy must be submitted to the *Employer's* Construction Manager prior to the start of fieldwork.

The *Contractor* shall comply with the specifications of the CEMP and abide with the *Employer's* Construction Manager's instructions regarding the implementation of the CEMP.

During the investigation period, the *Contractor* must comply with the following:

- A copy of the CEMP and SES shall be available on Site, and the *Contractor* shall ensure that all personnel on Site, including *Sub-Contractors*, Suppliers and their staff, are familiar with and understand the specifications contained in the CEMP and SES.
- Where method statements are required during the investigation, the method statement must be submitted to the *Project Environmental Manager* for approval at least fourteen (14) days prior to the proposed commencement of the activity.

The *Contractor* shall clear and clean the Site and Working Areas and ensure that everything not forming part of the Works is removed from the Site and Working Areas and that all re-instatement has taken place in accordance with the CEMP and SES.

4.3 Quality Assurance Requirements

The onus rests entirely on the *Contractor* to produce the Works which shall conform in quality and accuracy of detail to the requirements of the Transnet – Quality specification "General Quality Requirements for *Contractors* and Suppliers" including Technical Specifications and Drawings. The *Contractor* must, at his own expense, institute a quality management system, instruments and equipment to ensure adequate Quality supervision and control of the Works at all times.

The *Contractor* shall submit Project Quality Plan (PQP), Method Statement, Quality Control Plans (QCP's) and Data pack Index to the Transnet for approval. The *Contractor's* quality plan shall include or reference the quality plans of *Sub-Contractors* if applicable.

The *Contractor* develops and maintains a comprehensive register of documents that shall be generated throughout the *Contract* for Project deliverables, including all quality related documents, as part of the *Contract*.

The *Project Manager* indicates those documents required to be submitted for information, review or acceptance and the *Contractor* indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents with the *Project Manager* responding to documents submitted by the *Contractor* for review or acceptance within the period for reply prior to such documents being used by the *Contractor*.

4.4 Risk Management

The *Contractor* to review the potential risk elements as per the ISO 31000 Risk Management standard associated with the project. The *Contractor* to demonstrate the experience in identifying risk, measure risks, analyse risk, mitigate risk, monitor and control risk, assign risk owner and action plan dates. The documents should:

- Present Project Risk Management Plan.
- Present Project Risk Management Policy and Procedure.
- Present how Project Risk Management shall be implemented/executed in the project.

Notwithstanding this information, all costs related to risk elements (which are at the *Contractor's* risk) are deemed to be included in the Tenderer's offered total of the Prices.

4.5 Insurance

The insurance that shall be provided by the *Employer* is arranged on a Principled Controlled Insurance (PCI) basis. All Parties of this project is insured under this portfolio.

The insurance portfolio consists of a Public Liability policy and a Professional Indemnity for design and construction.

The *Contractor* shall maintain its own insurance for plant and equipment, own employee liability (Compensation for Occupational Injuries and Diseases Act, COIDA), motor vehicle insurance and motor vehicle third party insurance as stated in the *Contract*.

The Insurance procedure manual shall be issued within two weeks after the starting date. This manual shall contain the claim procedure, claim advice form as well as a more detailed description of each policy.

The *Contractor* follows the claims procedure and liaises with the *Employer* and the *Project Manager* when a claim is made and assists in completing the Claims Advice Forms that is contained in the insurance procedure manual.

4.6 Contractor's Management, Supervision and Key People

The *Contractor* provides an Organogram and Curriculum Vitae's of all his Key people (both as required by the *Employer* and as independently stated by the *Contractor* under *Contract Data Part Two*) and shows how such Key people communicate with the *Project Manager*, the *Supervisor* and their delegates.

4.6.1 Certified Safety, Health and Environmental Official

The *Contractor* employs a CSHEO, based on the Site, as a key person under ECC3 Clause 24.1.

The CSHEO reports to the PSSM in respect of issues relating to safety risk management. The CSHEO submits the CHSMP to the *Project Manager* for approval and ensures that the *Contractor* implements the CHSMP.

The CSHEO reports to the SHEC on the Site in respect of issues relating to environmental management. The CSHEO submits the CEMP to the *Project Manager* for approval and ensures that the *Contractor* implements the CEMP. The CSHEO provides the *Project Manager* with all environmental method statements.

The CSHEO tasks include but are not limited to:

- Reports a safety incident to the *Project Manager*.
- Attends all SHE meetings, toolbox talks, induction programmes and monitors compliance with the CHSMP.
- Submits daily, weekly and monthly reports and data as required by the CHSMP to the PSSM.
- Reports an environmental incident to the *Project Manager*.
- Undertakes daily, weekly and monthly inspections of the Site and Working Areas as required by the CEMP and submits reports to the *Project Manager*.
- *Monitors compliance with the CEMP and the environmental method statements submitted to the Project Manager.*
- Ensures the *Contractor* clears litter from the Site and Working Areas.
- Submits daily, weekly and monthly checklists in the agreed format to the SHEC.

4.6.2 QA/QC Manager

The *Contractor* employs a QA/QC Manager (CQA/QCM), based on the Site, as a key person under ECC3 Clause 24.1. The CQA/QCM reports to the *Supervisor*. The CQA submits the PQP to the *Project Manager* for approval and ensures that the Works meet the standards stated in the Works Information. The CQA/QCM tasks include but are not limited to:

- Maintains *the comprehensive register of documents required by the PQP.*
- Undertakes all inspections and testing required by the PQP.
- Prepares and regularly updates the CDR.

4.6.3 Industrial Relations Practitioner

The *Contractor* employs a *Contractor's* Industrial Relations Practitioner (CIRP), based on the Site, as a key person under ECC3 Clause 24.1.

4.6.4 Planner

The *Contractor* employs the *Contractor's* Planner (CP), based on site, as a key person under ECC3 Clause 24.1.

The CP is based on the Site and is responsible for all construction programming, planning and reporting of this programmer. The CP tasks include but are not limited to:

- Undertakes *the planning and scheduling of all activities comprising the Works.*

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- Ensures the *Contractor* submits the first and all subsequently revised programmes accurately and in a timely manner to the *Project Manager*.
 - Ensures the *Contractor* submits programme narrative report to the *Project Manager* at weekly intervals.

4.6.5 Contractor's Health and Safety Resource

The *Contractor* employs a Health and Safety Resource as a key person under ECC3 Clause 24.1. The Health and Safety Resource tasks are as stated in the relevant specification.

4.6.6 Supervisory Staff

It is essential that suitably qualified and experienced personnel be used to undertake the operation of the drilling platform, drilling support vessels as well as the overall supervision and management of the Works. The *Contractor* shall provide details in the tender of the key persons whom he intends employing in a supervisory capacity for the specified Work.

5 Procurement

5.1 Code of Conduct

Transnet aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any Supplier (dealing with Transnet) must understand and support. These are:

- The Transnet Procurement Procedures Manual (PPM).
- Section 217 of the Constitution - the five pillars of Public Procurement and Supply Chain Management (PSCM): fair, equitable, transparent, competitive and cost effective.
- The Public Finance Management Act (PFMA).
- The Broad Based Black Economic Empowerment (BBBEE) Act.
- The Anti-Corruption Act.

This code of conduct has been included in this *Contract* to formally appraise Transnet Suppliers of Transnet's expectations regarding the behaviour and conduct of its Suppliers.

5.2 Prohibition of bribes, kickbacks, unlawful payments and other corrupt practices

Transnet is in the process of transforming itself into a self-sustaining state owned enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that shall enable this transformation.

- Transnet shall not participate in corrupt practices and therefore expects its Suppliers to act in a similar manner.
- Transnet and its employees shall follow the laws of this country and keep accurate business records that reflect actual transactions with and payments to our Suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, to:
 - Illegally influence their judgment or conduct or to ensure the desired outcome of a sourcing activity.
 - Win or retain business or to influence any act or decision of any decision stakeholders involved in sourcing decisions.
 - Gain an improper advantage.
- There may be times when a Supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our "Tip-offs Anonymous" hot line to report these acts (0800 003 056).
- Transnet is firmly committed to the ideas of free and competitive enterprise.
 - Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust.
 - Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).
- Transnet's relationship with Suppliers requires us to clearly define requirements, exchange information and share mutual benefits.
- Generally, Suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our Suppliers, we shall not tolerate any illegal activities. These include, but are not limited to:

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- Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc.).
 - Collusion.
 - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.).
 - Corrupt activities listed above.
 - Harassment, intimidation or other aggressive actions towards Transnet employees.
 - Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the Supplier is expected to participate in an honest and straight forward manner.
 - Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

5.3 Conflicts of interest

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet, such as:

- Doing business with family members.
- Having a financial interest in another company in our industry.

6 ***Sub-Contracting***

The *Contractor* shall appoint a SANAS accredited testing laboratory, accredited for “Civil Engineering Testing” to perform laboratory tests (refer to Section 3.2).

Surveying activities for setting out borehole/test pit positions may also require the appointment of a registered surveyor.

Sub-Contractor documentation and assessment of *Sub-Contract* Tenders:

- *Contractor* shall ensure that the Quality Assurance, Health and Safety, industrial relations, environmental, documentation control and all other requirements placed on him under this *Contract* are transferred into any *Sub-Contracts*.

Where the *Contractor* employs a *Sub-Contractor* who performs part of the Works or who supplies plant and materials for incorporation into the Works, which involves a *Sub-Contractor* operating on the Site and/or Working Areas, then the *Contractor* ensures that any such *Sub-Contractor* complies with the CEMP, SES and PES Environmental Management requirements (NEMA and Transnet) as appropriate and that the *Sub-Contract* documentation places back-to-back obligations on the *Sub-Contractor* which reflect the *Contractor's* obligations under the CEMP, SES and PES, all within the *Contractor's* Quality Management System.

Where the *Contractor* employs a *Sub-Contractor* who performs part of the Works or who supplies plant and materials for incorporation into the Works, which involves a *Sub-Contractor* operating on the Site and/or Working Areas, then the *Contractor* ensures that any such *Sub-Contractor* complies with the Project Industrial Relations Policy (PIRP) as appropriate and that the *Sub-Contract* documentation places back-to-back obligations on the *Sub-Contractor* which reflect the *Contractor's* obligations under the PIRP, all within the *Contractor's* Quality Management System.

The *Contractor* shall ensure that the Quality Assurance requirements placed on him under this *Contract* are transferred onto all appointed *Sub-Contractors*.

7 Invoices

All invoices submitted by the *Contractor* shall be VAT invoices, which shall be accompanied by a daily activity sheet, covering the services together with, where relevant, a brief explanation of the time covered, and full breakdown of expenses to which receipts relate.

The invoice states the following:

- Invoice addressed to Transnet Limited.
- Transnet Limited's VAT No: 4720103177.
- Invoice number.
- The *Contractor's* VAT Number.
- The *Contract* Number.

Invoices are to be delivered to:

N2 Neptune Road
2nd Floor, TNPA Admin Building (Emendi Building)
Port of Ngqura
Port Elizabeth
Attention: The office of the Secretariat: Alphoncina Tau
Email address: Alphoncina.Tau@Transnet.net

The invoice is presented as an original.

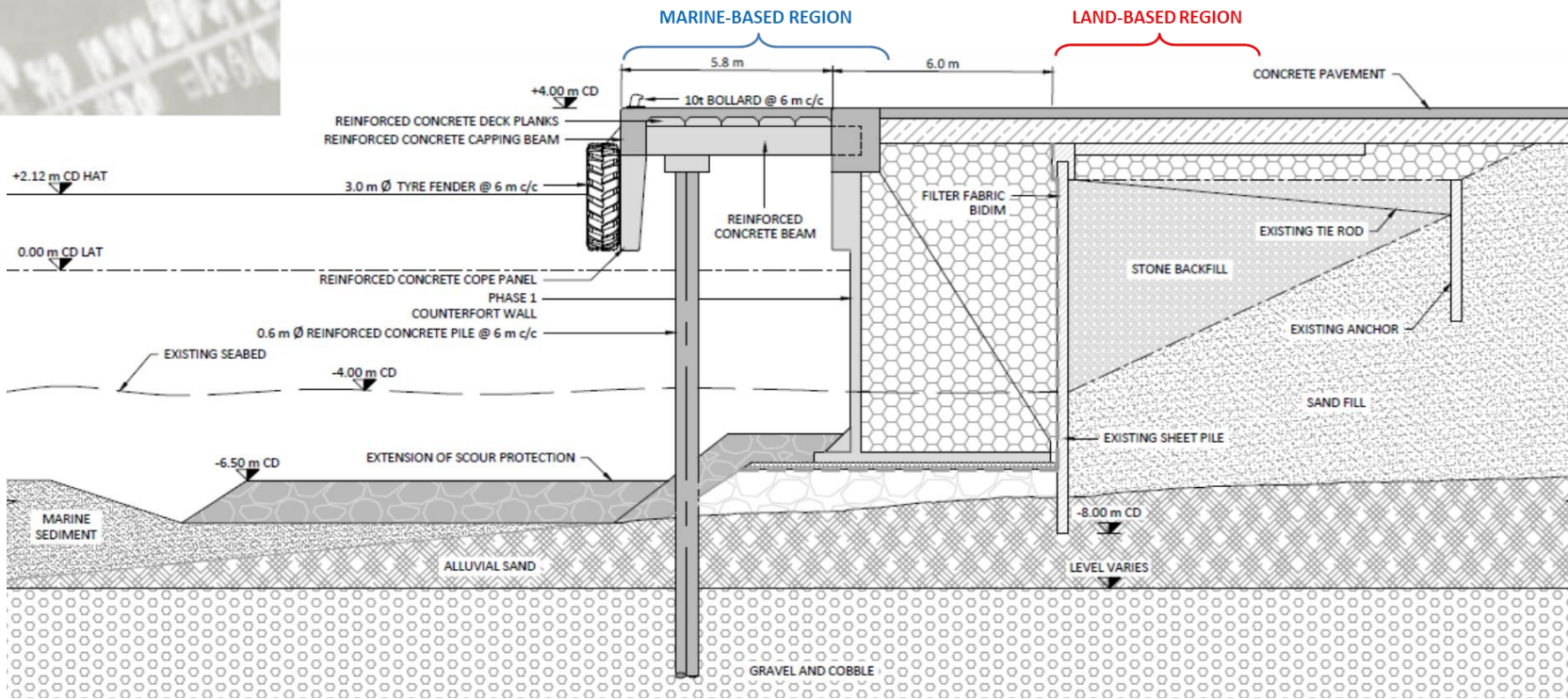
ANNEXURE A.3: Proposed Site Plan for Scope B

Old Tug Jetty Sheet Pile Rehabilitation (Port of Port Elizabeth)



- Keys**
- Proposed land-based boreholes
 - Proposed marine-based boreholes
 - Proposed test pits

This is only a proposed site layout. The *Supervisor* can provide alternative positions for boreholes/test pits during the course of the geotechnical investigation as required/deemed necessary.



Typical cross-section of proposed development

ANNEXURE B: *Contractor* Documentation Submittal Requirements

DOC-STD-0001 – REV03

ANNEXURE C: CAD-STANDARDS

ENG-STD-0001

ANNEXURE D: Construction Environmental Management Plan

ENV-STD-001 – Rev04

ANNEXURE E: Standard Environmental Specification

ENV-STD-002 – Rev04

ANNEXURE F: Internal Quality Requirements for *Contractors and Suppliers*

QAL-STD-0001 – Rev00

ANNEXURE G: Post COVID-19 Lockdown Construction Site Health and Safety Guidelines

TGC-IMS-HS-SOP-009.001

ANNEXURE H: Industrial Relations Policy and Management Plan

ACM-IR-POL-001

ANNEXURE I: Covid-19 Health Care Waste Management on Construction Sites

TGC-IMS-Env-Sop-009