

**Transnet National Ports Authority**

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

**REQUEST FOR PROPOSAL (RFP)**

**FOR THE: REFURBISHMENT OF 45 BAY TERRACE BUILDING**

<b>RFP NUMBER</b>	<b>: TNPA/2023/08/0007/37982/RFP</b>
<b>ISSUE DATE</b>	<b>: 9 October 2023</b>
<b>COMPULSORY BRIEFING</b>	<b>: 16 October 2023</b>
<b>CLOSING DATE</b>	<b>: 31 October 2023</b>
<b>CLOSING TIME</b>	<b>: 16h00pm</b>
<b>TENDER VALIDITY PERIOD</b>	<b>: 12 weeks from closing date</b>

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Number	Heading
--------	---------

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|------|-------------------|
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- |      |                  |
|------|------------------|
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|------|------------------|

## ***The Tender***

## ***Part T1: Tendering Procedures***



## ***T1.1 Tender Notice and Invitation to Tender***

## 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	Refurbishment of Bay 45 Bay Terrace Building
TENDER DOWNLOADING	<p><b>This Tender may be downloaded directly from the National Treasury eTender Publication Portal at <a href="http://www.etenders.gov.za">www.etenders.gov.za</a> and the Transnet website at <a href="https://transnetetenders.azurewebsites.net">https://transnetetenders.azurewebsites.net</a> (please use Google Chrome to access Transnet link) <b>FREE OF CHARGE</b>.</b></p>
COMPULSORY TENDER CLARIFICATION MEETING	<p>A Compulsory Tender Clarification Meeting will be conducted at <b>Queens Warehouse, 237 Mahatma Gandhi Road, Durban on the 16 October 2023, at 10:00am [10 O'clock]</b> for a period of <math>\pm 2</math> (two) 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> <p><b>A Site visit/walk will take place, tenderers are to note:</b></p> <ul style="list-style-type: none"> <li>• Tenderers are required to wear safety shoes, goggles, long sleeve shirts, high visibility vests and hard hats.</li> <li>• Tenderers without the recommended Personal Protective Equipment (PPE) will not be allowed on the site walk.</li> <li>• Tenderers and their employees, visitors, clients and customers entering Transnet Offices, Depots, Workshops and Stores will have to undergo breathalyser testing.</li> <li>• All forms of firearms are prohibited on Transnet properties and premises.</li> <li>• The relevant persons attending the meeting must ensure that their identity documents, passports or drivers licences are on their possession for inspection at the access control gates.</li> </ul> <p>Certificate of Attendance in the form set out in the <b>Returnable Schedule T2.2-01</b> hereto must be completed and submitted with your Tender as proof of attendance is required for a <b>compulsory</b> site meeting and/or tender briefing.</p> <p><b>Tenderers are required to bring this Returnable Schedule T2.2-01 to the Compulsory Tender Clarification Meeting to be signed by the Employer's Representative.</b></p> <p><b>Tenderers failing to attend the compulsory tender briefing will be disqualified.</b></p>
CLOSING DATE	<p><b>16:00pm on 31 October 2023</b></p> <p>Tenderers must ensure that tenders are uploaded timeously onto the system. <b>If a tender is late, it will not be accepted for consideration.</b></p>

## 2. TENDER SUBMISSION

Transnet has implemented a new electronic tender submission system, the e-Tender Submission Portal, in line with the overall Transnet digitalization strategy where suppliers can view advertised tenders, register their information, log their intent to respond to bids and upload their bid proposals/responses on to the system.

a) The Transnet e-Tender Submission Portal can be accessed as follows:

Log on to the Transnet eTenders management platform website (<https://transnetetenders.azurewebsites.net>);

- Click on "ADVERTISED TENDERS" to view advertised tenders;
- Click on "SIGN IN/REGISTER – for bidder to register their information (must fill in all mandatory information);
- Click on "SIGN IN/REGISTER" - to sign in if already registered;
- Toggle (click to switch) the "Log an Intent" button to submit a bid;
- Submit bid documents by uploading them into the system against each tender selected.
- **Tenderers are required to ensure that electronic bid submissions are done at least a day before the closing date to prevent issues which they may encounter due to their internet speed, bandwidth or the size of the number of uploads they are submitting. Transnet will not be held liable for any challenges experienced by bidders as a result of the technical challenges. Please do not wait for the last hour to submit. A Tenderer can upload 30mb per upload and multiple uploads are permitted.**

b) 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.

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

## 3. 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. 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.

#### 4. 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:

- 4.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer.
- 4.2. Not necessarily accept the lowest priced tender or an alternative Tender;
- 4.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;
- 4.4. 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;
- 4.5. Request audited financial statements or other documentation for the purposes of a due diligence exercise;
- 4.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;
- 4.7. 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;
- 4.8. 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);
- 4.9. 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.
- 4.10. 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.
- 4.11. 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 on T2.2-23], [**Breach of Law**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.

- *unduly high or unduly low tendered rates or amounts in the tender offer;*
- *contract data of contract provided by the tenderer; or*
- *the contents of the tender returnables which are to be included in the contract.*

## 6. NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE

Supplier Number

[illegible]

Unique registration reference number

[illegible][illegible]

**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](mailto:Transnet@tip-offs.com)**

# "HOW TO" GUIDE FOR BIDDERS

REGISTER ON ETENDER PORTAL

ACCESS TENDERS

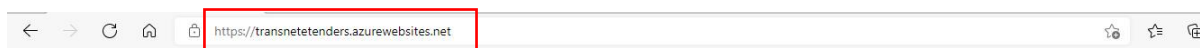
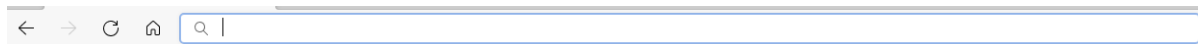
**NB: Do not wait for the last minute to register or to bid for a tender. Ensure you complete your process at least 1 day (24hours) before the closing date**

## **TENDERERS TO NOTE WHEN UPLOADING DOCUMENTS TO ONLY USE ALPHA NUMERIC AND NO SPECIAL CHARACTERS TO BE USED**

Go to Google Chrome



In the address bar type: <https://transnetetenders.azurewebsites.net>



https://transnetetender.b2clogin.com/transnetetender.onmicrosoft.com/b2c\_1\_signupsignin/oauth2/v2.0/authorize?client



### Sign in with your email address

[Forgot your password?](#)


[Sign in](#)

[Don't have an account? → Sign up now](#)

If not already registered, click on Sign up now.

Ensure that the email you use to sign in is the same as the email that you received from the tender invite on the email, otherwise you will not see the tender

Cancel



Email Address

Send verification code

New Password

Confirm New Password

Given Name

Organization Name

Surname

Central Supplier Database Number

Company Registration Number

Country/Region

Country/Region

Secondary Email Address

State/Province

Street Address

Postal Code

Display Name

Create

Complete all fields, before selecting “Send verification code” and confirm that all information is correct.

**VERY IMPORTANT:** Each field needs to be completed and not to be left blank


If you do not have a central Supplier Database number, enter the same company registration number in that field.



Send verification code

After completing all fields, select "Send verification code". The code will be sent to your email.

< Cancel



Verification code has been sent to your inbox. Please copy it to the input box below.

abc@gmail.com

Verification Code

Copy the code as received on the email and paste it in the Verification code field  
Then click on Verify code

Verify code

Send new code

\*\*\*\*\*

Forgot your password?

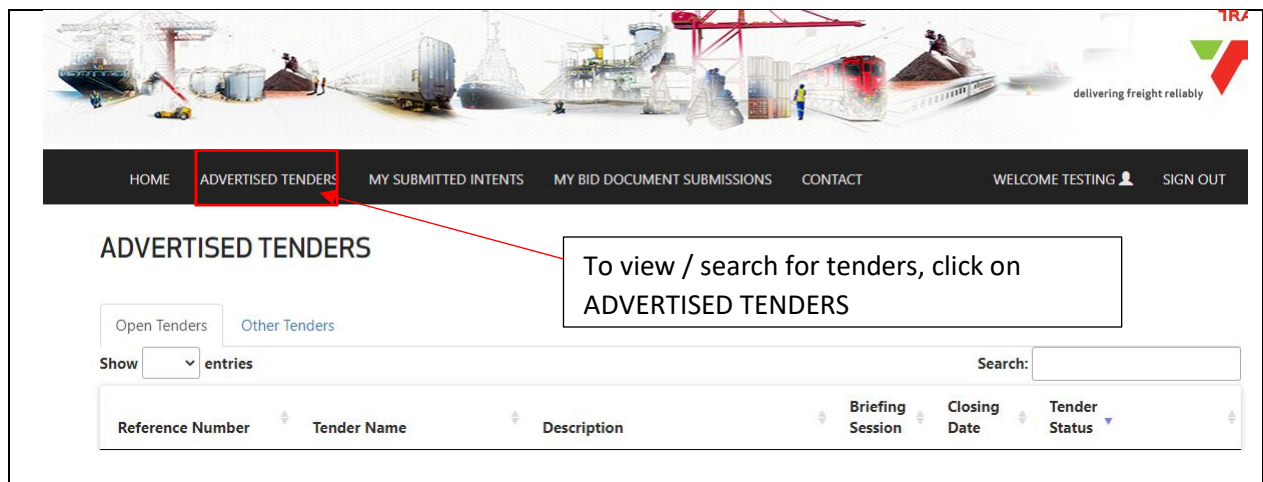
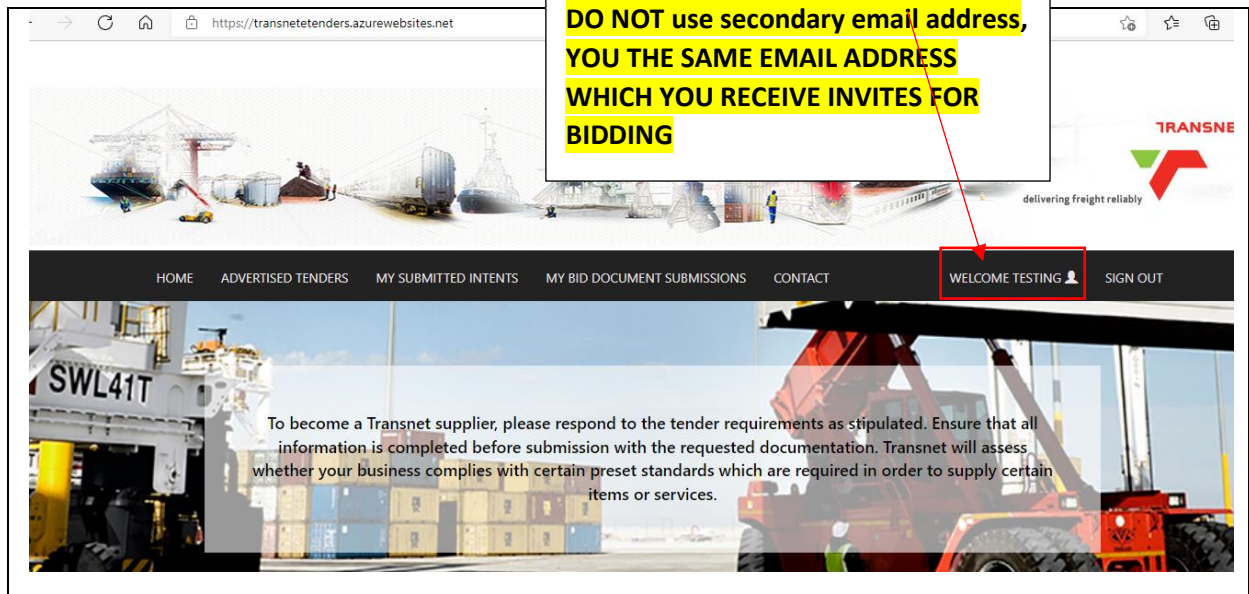
Sign in

Don't have an account? [Sign up now](#)

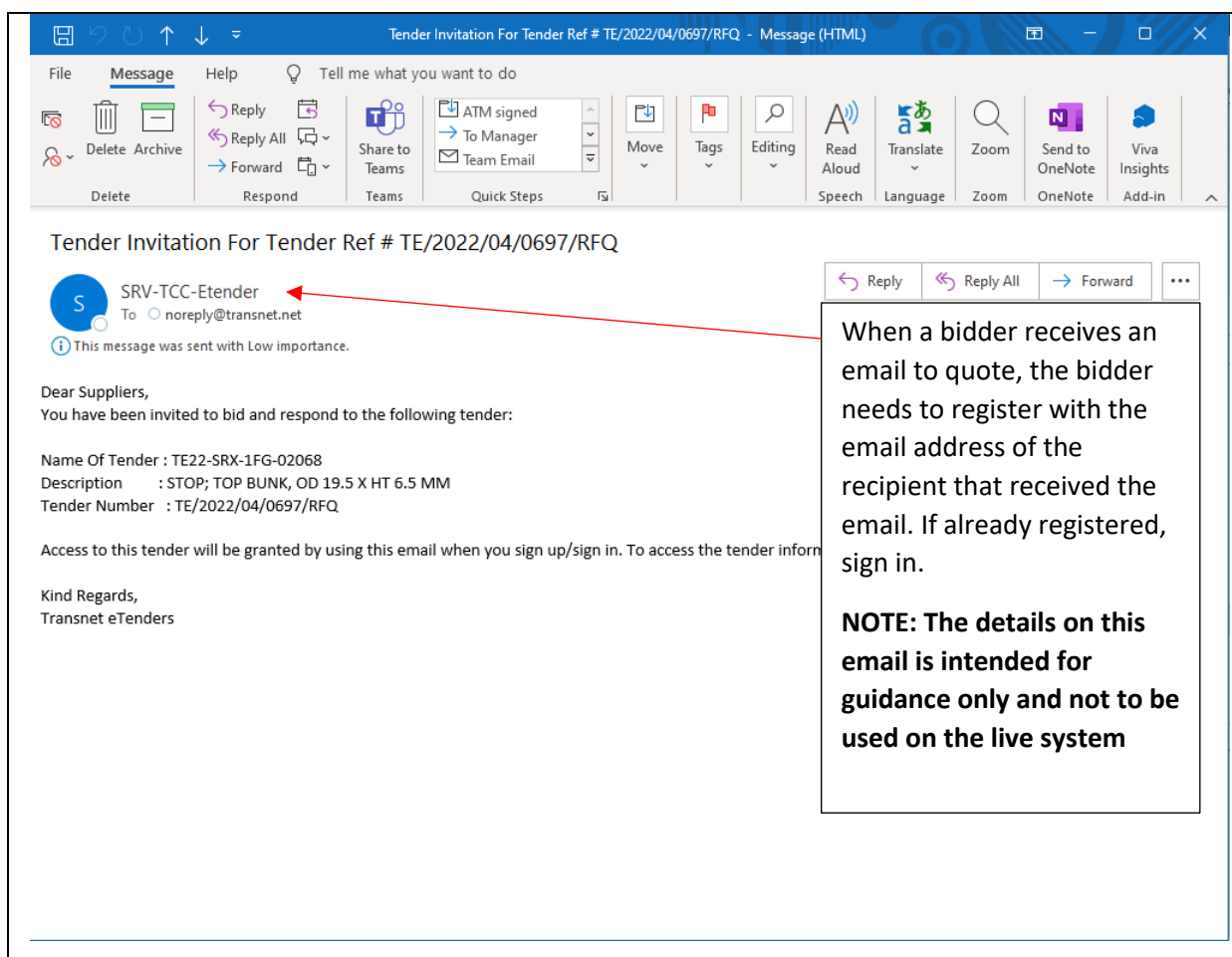
Then click on Sign in

Once registered and signed in, the home screen will have “WELCOME (Registered user)”

**DO NOT use secondary email address, YOU THE SAME EMAIL ADDRESS WHICH YOU RECEIVE INVITES FOR BIDDING**



To view / search for tenders, click on ADVERTISED TENDERS



**Tender Invitation For Tender Ref # TE/2022/04/0697/RFQ**

SRV-TCC-Etender  
To: noreply@transnet.net

This message was sent with Low importance.

Dear Suppliers,  
You have been invited to bid and respond to the following tender:

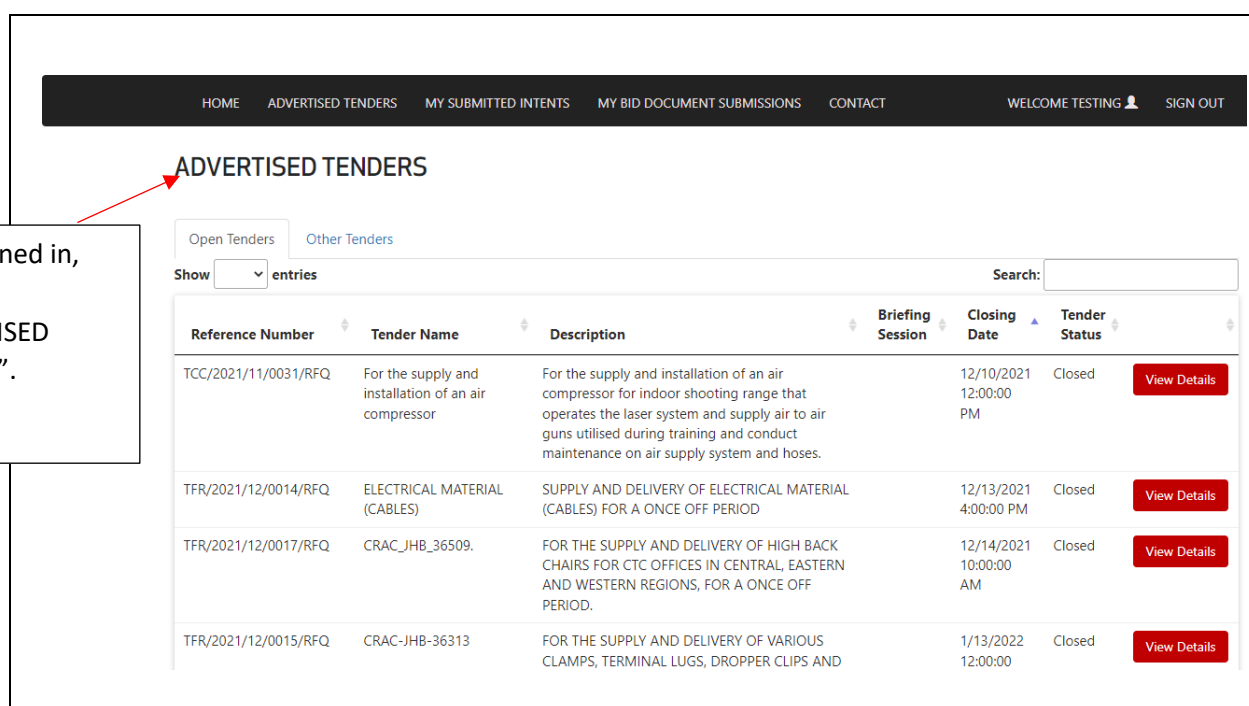
Name Of Tender : TE22-SRX-1FG-02068  
Description : STOP; TOP BUNK, OD 19.5 X HT 6.5 MM  
Tender Number : TE/2022/04/0697/RFQ

Access to this tender will be granted by using this email when you sign up/sign in. To access the tender information, please click on the link provided in the email.

Kind Regards,  
Transnet eTenders

**When a bidder receives an email to quote, the bidder needs to register with the email address of the recipient that received the email. If already registered, sign in.**

**NOTE: The details on this email is intended for guidance only and not to be used on the live system**



**ADVERTISED TENDERS**

Open Tenders | Other Tenders

Show  entries

Search:

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status
TCC/2021/11/0031/RFQ	For the supply and installation of an air compressor	For the supply and installation of an air compressor for indoor shooting range that operates the laser system and supply air to air guns utilised during training and conduct maintenance on air supply system and hoses.		12/10/2021 12:00:00 PM	Closed <a href="#">View Details</a>
TFR/2021/12/0014/RFQ	ELECTRICAL MATERIAL (CABLES)	SUPPLY AND DELIVERY OF ELECTRICAL MATERIAL (CABLES) FOR A ONCE OFF PERIOD		12/13/2021 4:00:00 PM	Closed <a href="#">View Details</a>
TFR/2021/12/0017/RFQ	CRAC_JHB_36509.	FOR THE SUPPLY AND DELIVERY OF HIGH BACK CHAIRS FOR CTC OFFICES IN CENTRAL, EASTERN AND WESTERN REGIONS, FOR A ONCE OFF PERIOD.		12/14/2021 10:00:00 AM	Closed <a href="#">View Details</a>
TFR/2021/12/0015/RFQ	CRAC-JHB-36313	FOR THE SUPPLY AND DELIVERY OF VARIOUS CLAMPS, TERMINAL LUGS, DROPPER CLIPS AND		1/13/2022 12:00:00	Closed <a href="#">View Details</a>

**When signed in, select "ADVERTISED TENDERS".**

To manually search and change the view from Closed to Open, click twice on arrow next to "Tender Status". The arrow pointing down will change to blue and open tenders will be displayed.

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ADVERTISED TENDERS
MY SUBMITTED INTENTS
MY BID DOCUMENT SUBMISSIONS
CONTACT
WELCOME TESTING
SIGN OUT

## ADVERTISED TENDERS

Open Tenders
Other Tenders

Show
▼
entries
Search:

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status	
TE/2022/04/0450/RFQ	VALVE:L-1 LOAD DET,WAGONS AIRBRAKE	VALVE:L-1 LOAD DET,WAGONS AIRBRAKE-062101802 VALVE; TYPE: L-1 LOAD DETECTOR, MEDIA FOR WHICH DESIGNED: WAGONS AIRBRAKE, CONNECTION TYPE: FLANGE, SPECIAL FEATURES: BLUE, WITHOUT PIPE BRACKET; SIMILAR ITEM: 062004338		4/8/2022 10:00:00 AM	Open	<a href="#">View Details</a>
TE/2022/04/0494/RFQ	GEAR OIL	OIL, GEAR TYPE SYNTHETIC BRAND NAME MOBILGEAR SHC SERIES GRADE SCH 6800 VISCOSITY RATING 220 TO 320 FLASH POINT 234 DEG C COLOR ORANGE CONTAINER TYPE SACHET 250 G CONTAINER CAPACITY 14 KG FOR USE ON: 39-200 GM, 15E AND 19E LOCOMOTIVES		4/8/2022 10:00:00 AM	Open	<a href="#">View Details</a>
TE/2022/04/0495/RFQ	SUPPLY OF CORROSION (NALCOOL) - APPROVED	ITEM NUMBER - 077807563 INHIBITOR, CORROSION; TYPE: COOL-C18, COLOR: RED,		4/8/2022 10:00:00	Open	<a href="#">View Details</a>

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MY SUBMITTED INTENTS
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WELCOME TESTING
SIGN OUT

## ADVERTISED TENDERS

Open Tenders
Other Tenders

Show
▼
entries
Search: TE/2022/04/0697/RFQ

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status	
TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM		4/13/2022 10:00:00 AM	Open	<a href="#">View Details</a>

To search for a specific tender, the tender number, tender name or description can be used for searching.

## ADVERTISED TENDERS

Open Tenders
Other Tenders

Show
▼
entries
Search: TE22-SRX-1FG-02068

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status	
TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM		4/13/2022 10:00:00	Open	<a href="#">View Details</a>

When the tender has been identified, click on "View Details"

When the “View Details” has been selected, the following screen will be displayed where the attachments can be viewed or downloaded.

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

## TENDER DETAILS

Tender Details

<b>Tender Reference Number</b>	TE/2022/04/0697/RFQ
<b>Name Of Tender</b>	TE22-SRX-1FG-02068
<b>Description</b>	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM
<b>Tender Type</b>	RFQ
<b>Contact Person</b>	Charl du Preez Transnet Engineering SLR
<b>Contact Person Email Address</b>	Charl.duPreez@transnet.net
<b>Date Published</b>	4/7/2022 3:51:47 PM
<b>Closing Date</b>	4/13/2022 10:00:00 AM
<b>Briefing Date And Time</b>	
<b>Briefing Details</b>	
<b>Location Of Service</b>	Coaches, Salt River

**Briefing Session**  
**Closing Date**  
4/13/2022 10:00:00 AM  
**Attachments**  

2.14 Standard Terms and Conditions of Contract f

2.18 Supplier Integrity Pact\_April 2020\_v1.pdf

2.19 Non Disclosure Agreement\_April 2020\_v1.pdf

2.9 Request for Quotations TE22-SRX-1FG-02068,

**Log An Intent To Bid**  
☐

If interested to bid, on the same page there's an option to select: **Log an Intent to Bid**. Once selected, an option will appear to “**Submit Intent**” or “**Cancel**”. Click on **Submit Intent**

Tender Details

<b>Tender Reference Number</b>	TE/2022/04/0697/RFQ
<b>Name Of Tender</b>	TE22-SRX-1FG-02068
<b>Description</b>	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM
<b>Tender Type</b>	RFQ
<b>Contact Person</b>	Charl du Preez Transnet Engineering SLR
<b>Contact Person Email Address</b>	Charl.duPreez@transnet.net
<b>Date Published</b>	4/7/2022 3:51:47 PM
<b>Closing Date</b>	4/13/2022 10:00:00 AM
<b>Briefing Date And Time</b>	
<b>Briefing Details</b>	
<b>Location Of Service</b>	Coaches, Salt River
<b>Name Of Institution</b>	TE
<b>Tender Category</b>	Goods
<b>Tender Status</b>	Open

**Briefing Session**  
**Closing Date**  
4/13/2022 10:00:00 AM  
**Attachments**  

2.14 Standard Terms and Conditions of Contract f

2.18 Supplier Integrity Pact\_April 2020\_v1.pdf

2.19 Non Disclosure Agreement\_April 2020\_v1.pdf

2.9 Request for Quotations TE22-SRX-1FG-02068,

**Log An Intent To Bid**  
☒

**Submit Intent** **Cancel**

**Tender Details**

**Tender Reference Number**

**Name Of Tender**

**Description**

**Tender Type** RFQ

**Contact Person** Charl du Preez Transnet Engineering SLR

**Contact Person Email Address** Charl.duPreez@transnet.net

**Date Published** 4/7/2022 3:51:47 PM

**Closing Date** 4/13/2022 10:00:00 AM

**Briefing Date And Time**

**Briefing Details**

**Location Of Service**

**Name Of Institution**

**Tender Category**

**Tender Status**

**Intent to Bid**

Your request to log an intent to bid has been successfully submitted.

Close

When the "Submit Intent" is selected, a message will appear to indicate that the request was successfully submitted. Click on close and wait for the next screen.

**Briefing Session**

**Closing Date** 4/13/2022 10:00:00 AM


**Attachments**

- 2.14 Standard Terms and Conditions of Contract for
- 2.18 Supplier Integrity Pact\_April 2020\_v1.pdf
- 2.19 Non Disclosure Agreement\_April 2020\_v1.pdf
- 2.9 Request for Quotations TE22-SRX-1FG-02068.pdf

**Log An Intent To Bid**

☒

[Submit Intent](#) [Cancel](#)



delivering freight reliably

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

**MY SUBMISSION INTENTS**

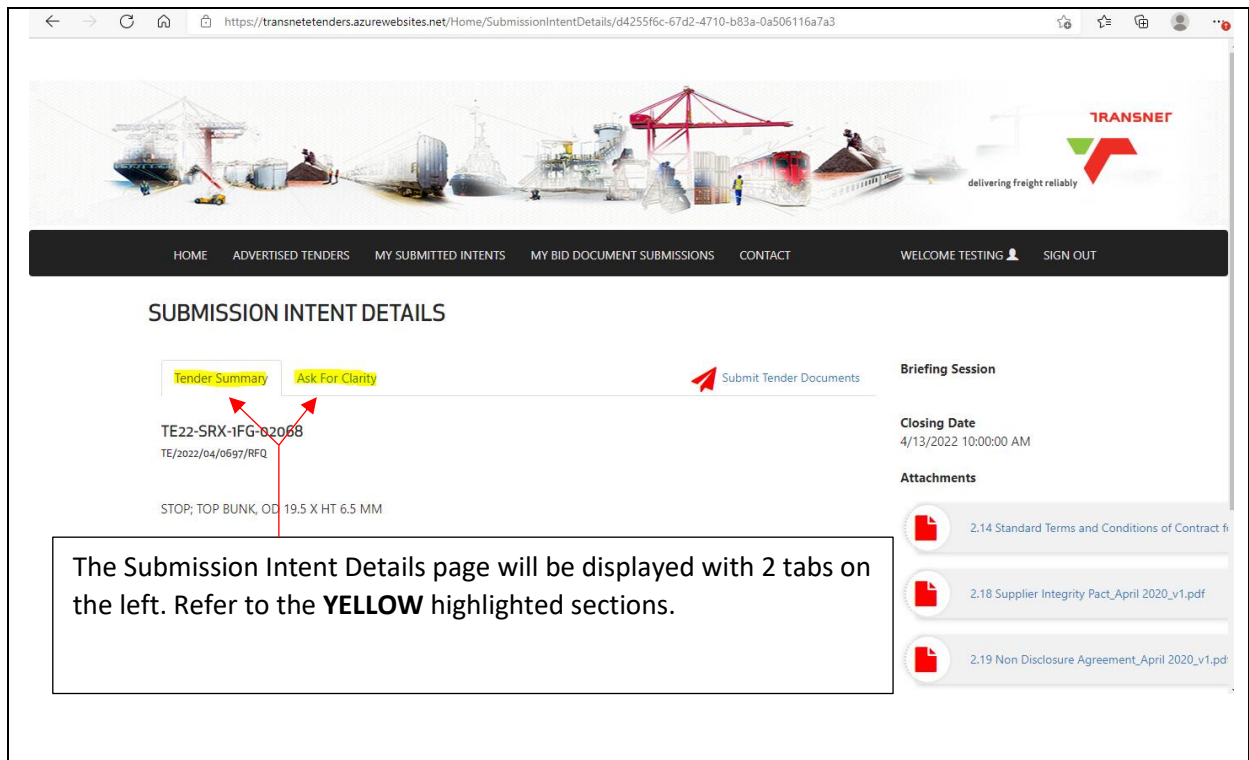
Show 10 entries

Tender Reference Number	Name	Description Of Tender	Briefing Session Date	Closing Date	View Details
TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM		4/13/2022 10:00:00 AM	<a href="#" style="background-color: red; color: white; padding: 2px 5px;">View Details</a>

Showing 1 to 1 of 1 entries

Previous 1 Next

The screen should be updated and load the "MY SUBMITTED INTENTS". To proceed to capturing your bid documents, click on "View Details"



https://transnettenders.azurewebsites.net/Home/SubmissionIntentDetails/d4255f6c-67d2-4710-b83a-0a506116a7a3

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

### SUBMISSION INTENT DETAILS

**Tender Summary** **Ask For Clarity** [Submit Tender Documents](#)

TE22-SRX-1FG-02068  
TE/2022/04/0697/RFQ

STOP, TOP BUNK, OD 19.5 X HT 6.5 MM

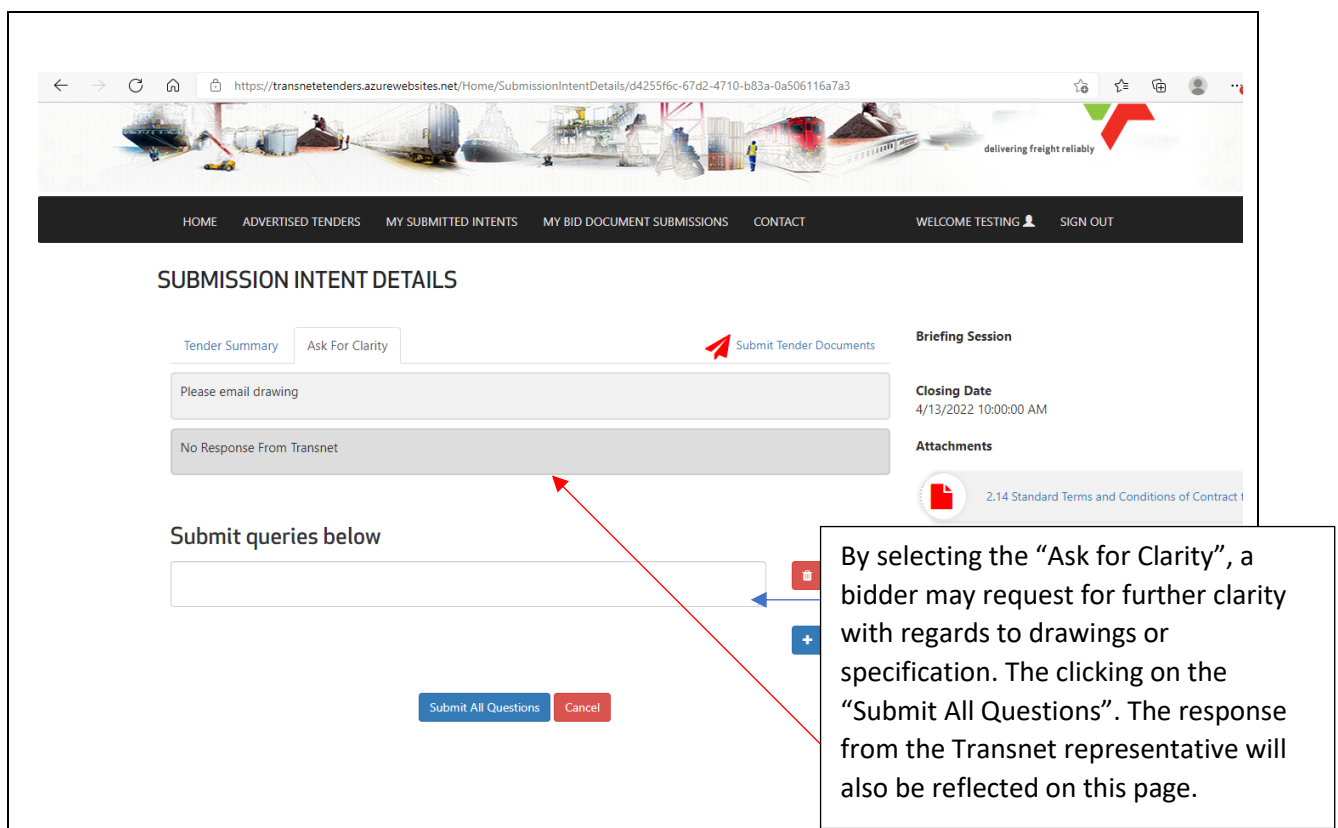
**Briefing Session**

**Closing Date**  
4/13/2022 10:00:00 AM

**Attachments**

- 2.14 Standard Terms and Conditions of Contract fi
- 2.18 Supplier Integrity Pact\_April 2020\_v1.pdf
- 2.19 Non Disclosure Agreement\_April 2020\_v1.pdf

The Submission Intent Details page will be displayed with 2 tabs on the left. Refer to the **YELLOW** highlighted sections.



https://transnettenders.azurewebsites.net/Home/SubmissionIntentDetails/d4255f6c-67d2-4710-b83a-0a506116a7a3

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

### SUBMISSION INTENT DETAILS

**Tender Summary** **Ask For Clarity** [Submit Tender Documents](#)

Please email drawing

No Response From Transnet

**Submit queries below**

[Submit All Questions](#) [Cancel](#)

**Briefing Session**

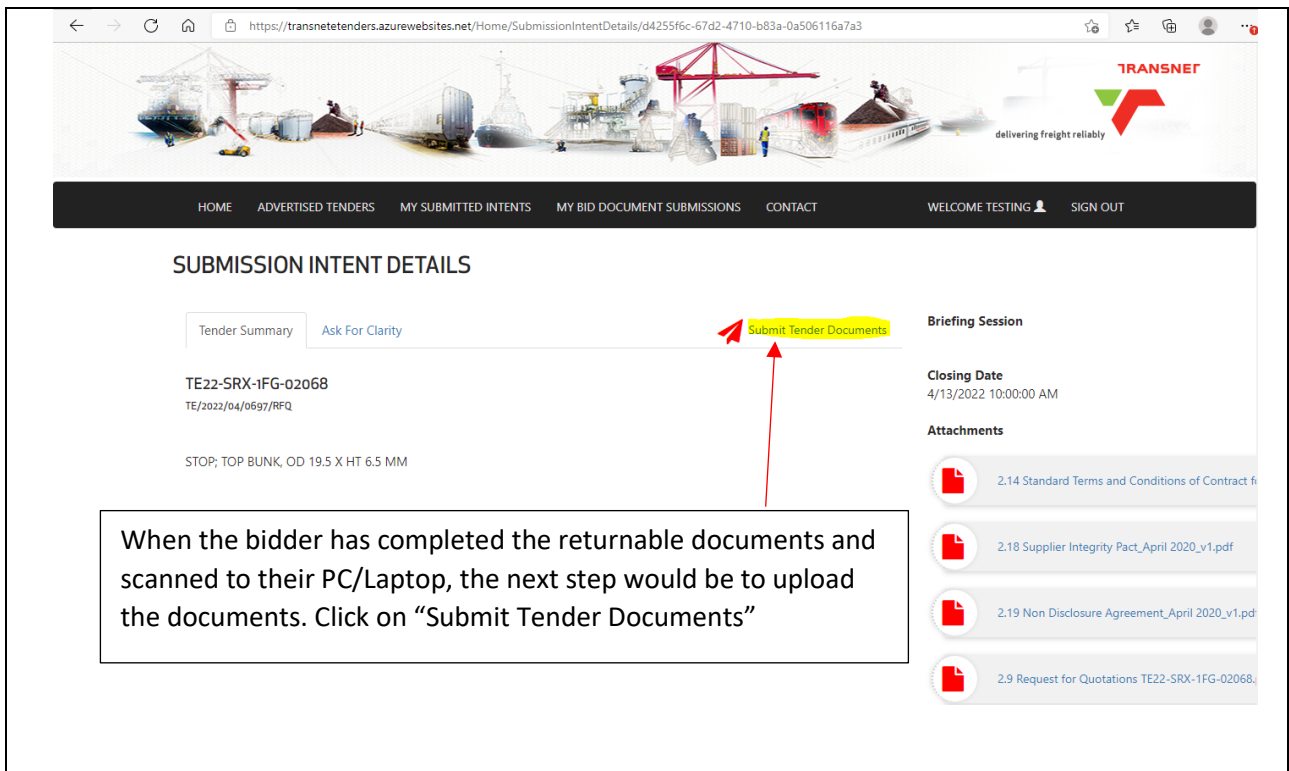
**Closing Date**  
4/13/2022 10:00:00 AM

**Attachments**

- 2.14 Standard Terms and Conditions of Contract 1

By selecting the "Ask for Clarity", a bidder may request for further clarity with regards to drawings or specification. The clicking on the "Submit All Questions". The response from the Transnet representative will also be reflected on this page.





Submission Intent Details

Tender Summary   Ask For Clarity   **Submit Tender Documents**

TE22-SRX-1FG-02068  
TE/2022/04/0697/RFQ

STOP; TOP BUNK, OD 19.5 X HT 6.5 MM

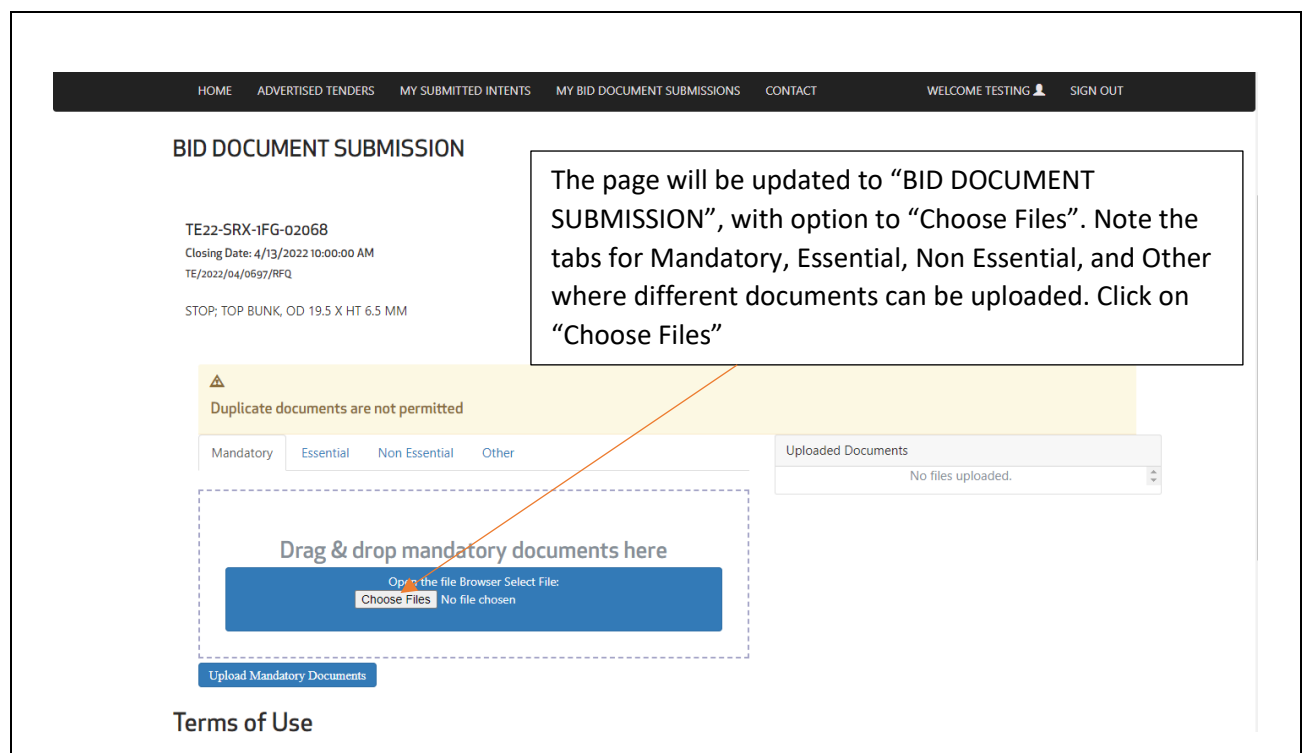
**Briefing Session**

Closing Date  
4/13/2022 10:00:00 AM

**Attachments**

- 2.14 Standard Terms and Conditions of Contract f
- 2.18 Supplier Integrity Pact\_April 2020\_v1.pdf
- 2.19 Non Disclosure Agreement\_April 2020\_v1.pdf
- 2.9 Request for Quotations TE22-SRX-1FG-02068.

When the bidder has completed the returnable documents and scanned to their PC/Laptop, the next step would be to upload the documents. Click on “Submit Tender Documents”



BID DOCUMENT SUBMISSION

TE22-SRX-1FG-02068  
Closing Date: 4/13/2022 10:00:00 AM  
TE/2022/04/0697/RFQ

STOP; TOP BUNK, OD 19.5 X HT 6.5 MM

**Choose Files**

The page will be updated to “BID DOCUMENT SUBMISSION”, with option to “Choose Files”. Note the tabs for Mandatory, Essential, Non Essential, and Other where different documents can be uploaded. Click on “Choose Files”

Duplicate documents are not permitted

Mandatory   Essential   Non Essential   Other

Uploaded Documents  
No files uploaded.

Drag & drop mandatory documents here

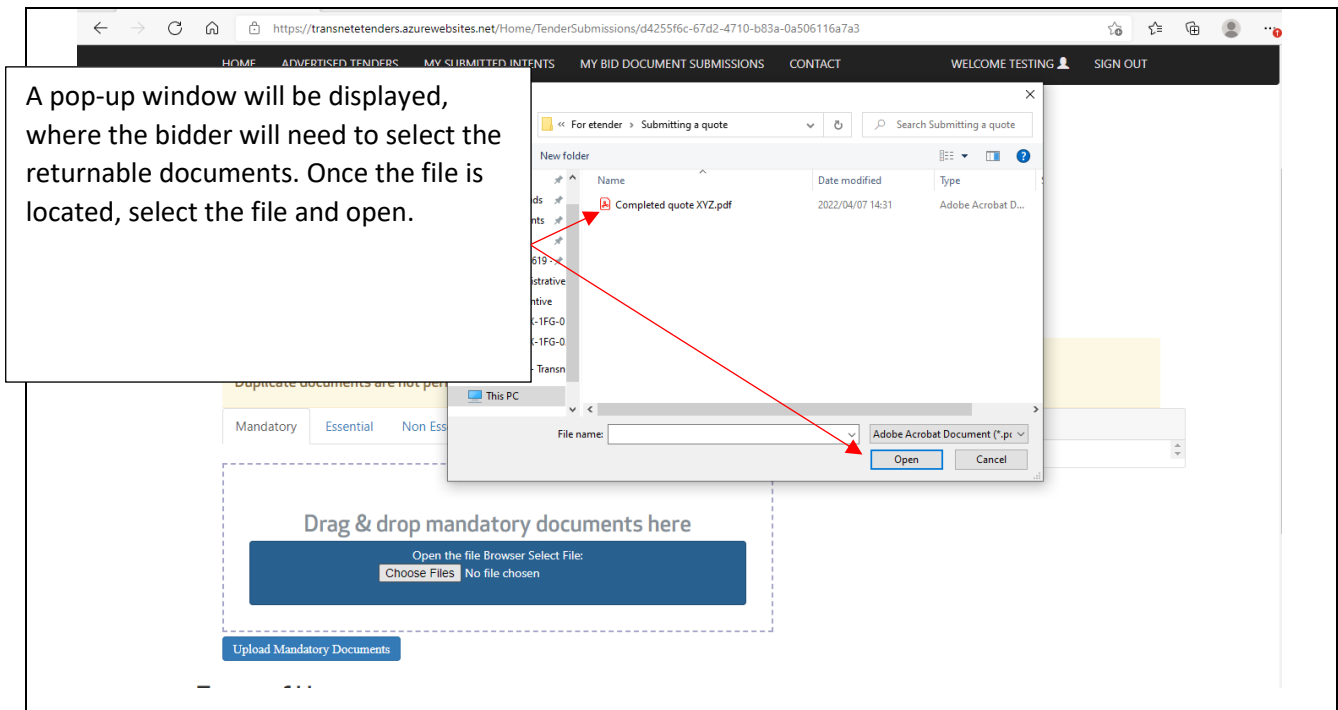
Open the file Browser Select File:  
**Choose Files** No file chosen

Upload Mandatory Documents

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A pop-up window will be displayed, where the bidder will need to select the returnable documents. Once the file is located, select the file and open.



**BID DOCUMENT SUBMISSION**

TE22-SRX-IFG-02068  
Closing Date: 4/13/2022 10:00:00 AM  
TE/2022/04/0697/RFQ  
STOP; TOP BUNK, OD 19.5 X HT 6.5 MM

Duplicate documents are not permitted

Mandatory Essential Non Essential Other

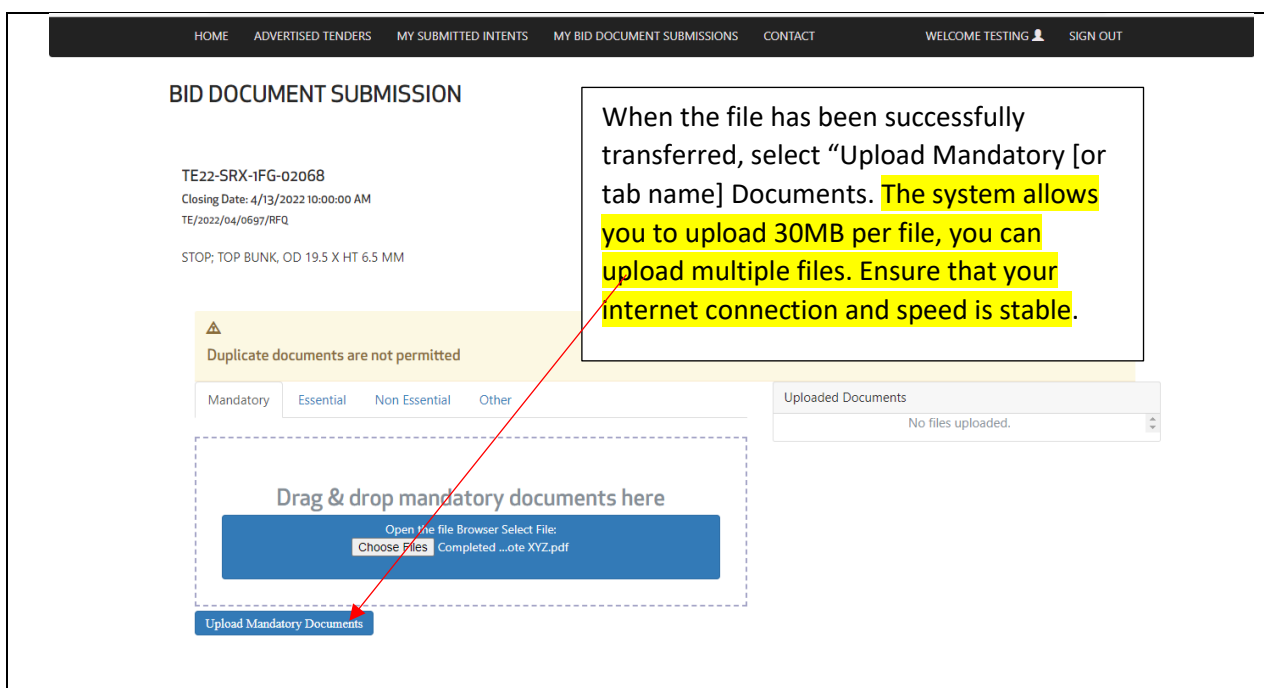
Drag & drop mandatory documents here

Open the file Browser Select File:  
Choose Files No file chosen

Upload Mandatory Documents

Uploaded Documents  
No files uploaded.

When the file has been successfully transferred, select "Upload Mandatory [or tab name] Documents. The system allows you to upload 30MB per file, you can upload multiple files. Ensure that your internet connection and speed is stable.



The "Uploaded Documents" section will be updated to confirm that the document was uploaded, then click on "Submit Bid"

TE/2022/04/0697/RFQ

STOP; TOP BUNK, OD 19.5 X HT 6.5 MM

⚠ Duplicate documents are not permitted

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Drag & drop mandatory documents here

Open the file Browser Select File:  
Choose Files No file chosen

Upload Mandatory Documents

Uploaded Documents

Completed quote XYZ.pdf - Document Type: Mandatory Documents

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Information provided by the bidder through this portal constitute a binding bid submission/response and a commitment to deliver Transnet requirements. Kindly note that the system automatically ranks the outcome of the evaluation of price and BBBEE scoring based on the information provided. Pricing and BBBEE information provided is the responsibility of the bidder to ensure correctness and Transnet will only consider your latest submission made before the closing date.

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Show 10 entries Search:

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TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	4/8/2022 8:59:06 AM	Transnet Engineering	View Details

Showing 1 to 1 of 1 entries

Previous 1 Next

The screen will progress to "MY BID DOCUMENT SUBMISSION", where the "View Details" can be selected to confirm that all required information is submitted correctly.

## ***T1.2 Tender Data***

## 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](http://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	<b>Transnet SOC Ltd</b> <b>(Reg No. 1990/000900/30)</b>
C.1.2 The tender documents issued by the <i>Employer</i> comprise:	
<b>Part T: The Tender</b>	
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
<b>Part C: The contract</b>	
Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2) C1.3 Form of Securities
Part C2: Pricing data	C2.1 Pricing instructions C2.2 Bill of Quantities
Part C3: Scope of work	C3.1 Works Information
Part C4: Site information	C4.1 Site information

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Part C3: Scope of work	C3.1 Works Information
Part C4: Site information	C4.1 Site information

C.1.4	The Employer's agent is:	Procurement Officer
	Name:	Shani Evans
	Address:	237 Mahatma Gandhi Road Durban 4000
	Tel No.	031 361 1273
	E – mail	Shani.kleyn@transnet.net
C.2.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:	
	<p><b>1. Stage One - Eligibility with regards to attendance at the compulsory clarification meeting:</b></p> <p>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</p>	
	<p><b>2. Stage Two - Eligibility in terms of the Construction Industry Development Board:</b></p> <p>a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, designation of <b>7GB or higher</b> class of construction work, are eligible to have their tenders evaluated.</p> <p>b) Joint Venture (JV)</p> <p>Joint ventures are eligible to submit tenders subject to the following:</p> <ol style="list-style-type: none"> <li>every member of the joint venture is registered with the CIDB;</li> <li>the lead partner has a contractor grading designation of not lower than one level below the required class of construction works under consideration and possesses the required recognition status; and</li> <li>the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a <b>7GB</b> or higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations</li> </ol> <p>The tenderer shall provide a certified copy of its signed joint venture agreement</p> <p><b><i>Any tenderer that fails to meet the stipulated eligibility criteria will be regarded as an unacceptable tender.</i></b></p>	

**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 for 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 T2.2-01 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 Each tender offer shall be in the **English Language**.

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: **16:00** on the **31 October 2023**

Location: The Transnet e-Tender Submission Portal:

(<https://transnetetenders.azurewebsites.net>);

**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 line with the code of good practice,

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together with the tender;

3. A valid CIDB certificate in the correct designated grading;
4. Proof of registration on the Central Supplier Database;
5. Letter of Good Standing with the Workmen's compensation fund by the tendering entity or separate Letters of Good Standing from all members of a newly constituted JV.

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

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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:

		<b>Sub-criteria</b>	<b>Sub-criteria points</b>	<b>Maximum number of points</b>
T2.2.03 Experience	Previous	<b>Building refurbishment projects</b>	10	<b>40</b>
		<b>Building refurbishment projects - Traceable reference letters</b>	5	
		<b>Building refurbishment projects - Certificates of completion</b>	5	
		<b>Heating, Ventilation and Air Conditioning (HVAC) projects</b>	5	
		<b>HVAC projects - Traceable reference letters</b>	3	
		<b>HVAC projects - Certificates of completion</b>	2	
		<b>Electrical projects</b>	5	
		<b>Electrical projects - Traceable reference letters</b>	3	
		<b>Electrical projects - Certificates of completion</b>	2	
T2.2.04	Method statement	<b>Method Statement</b>	15	<b>15</b>

T2.2.05 Quality Management	<b>Project Quality Plan (as per QAL-STD-0001)</b>	5	<b>10</b>
	<b>Quality Control Plans (as per QAL-STD-0001)</b> Quality Control Plan (QCP) specific to the Project but not limited to: <ol style="list-style-type: none"> <li>1. HVAC – (40%)</li> <li>2. Lighting Installation – (30%)</li> <li>3. Construction of Concrete Plinth &amp; Generator Enclosure – (30%)</li> </ol>	4	
	<b>Quality Policy</b>	1	
T2.2.06 Environmental Management	<b>Policy</b>	1	<b>10</b>
	<b>Checking, Monitoring and Measuring Procedures</b>	6	
T2.2.07 Health and Safety Requirements	<b>Policy (State points allocated)</b>	1	<b>15</b>
	<b>Roles &amp; Responsibilities</b>	2	
	<b>Overview of the Baseline risk assessment</b>	4	
	<b>Safety Questionnaire</b>	6	
	<b>Cost Breakdown Sheet</b>	2	
T2.2.08 Programme	Project programme to indicate the logical order and timelines of all activities as per the scope of work.	4	<b>10</b>

	<p>Program (Schedule of work) to detail each activity and its durations in the form of gantt chart. Level 4 (Construction schedule) with the following requirements:</p> <p>The Programme must be in Microsoft Project/ Primavera software.</p> <ol style="list-style-type: none"> <li>1. Work breakdown structure in logical order,</li> <li>2. Durations and dates for all work is shown,</li> <li>3. Key milestones and critical paths in MS project/primavera format and Basis of schedule aligned with the programme.</li> </ol>		
	<p>The Contractor indicates how he plans in achieving dates and clearly demonstrate them on the schedule by complying with Clause 31.2 of the NEC ECC-Initiate starting dates, access dates, planes completion, sectional completion dates and completion dates. The Programme must be in Microsoft Project/ Primavera software.</p>	2	
	<p>The Programme must clearly demonstrate adequate provisions for Time Risk Allowance (TRA). Time risk allowance are no float, are owned by the Tenderer, can be included in the activity duration, and illustration in the schedule in the code field or as an attachment.</p>	2	
	<p>The Basis of schedule document (a document that clearly describe the development of the schedule as to how the project duration is decomposed) is required, stipulating, but not limited to, underlying</p>	2	

	assumptions conditions, constraints, and approach to proving the works as detailed in the programme.		
<b>Maximum possible score for Functionality</b>			<b>100</b>

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

- T2.2.03 - Previous Experience – 40 points
- T2.2.04 - Method statement – 15 points
- T2.2.05 - Quality Management – 10 points
- T2.2.06 - Environmental Management – 10 points
- T2.2.07 - Health and Safety Requirements – 15 points
- T2.2.08 - Programme – 10 points

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.**

C3.11 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.

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,

Thresholds	Minimum Threshold
Technical / functionality	60

Evaluation Criteria	Final Weighted Scores
Price and Total Cost of Ownership	80
Specific goals - Scorecard	20
<b>TOTAL SCORE:</b>	<b>100</b>

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 evidence required for any of the Specific Goals applicable in this tender not be provided, a tenderer will score zero preference points for that particular "Specific Goal".**

In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, the following preference points must be awarded to a bidder who provides the relevant required evidence for claiming points.

<b>Selected Specific Goal</b>	<b>Number of points allocated (80/20)</b>
B-BBEE Status Level of Contributor 1 or 2	5.00
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality	5.00
The promotion of supplier development through subcontracting / JV a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people	7.00
Creation of new Jobs: total of 45 new jobs for the duration of the contract. <ul style="list-style-type: none"> <li>• Skilled Jobs 10</li> <li>• Semi-Skilled jobs 20</li> <li>• Unskilled jobs 15</li> </ul>	3.00
Non-Compliant and/or B-BBEE Level 3-8 contributors	0.00

**The following Table represents the evidence to be submitted for claiming preference points for applicable specific goals in a particular tender:**

<b>Specific Goals</b>	<b>Acceptable Evidence</b>
B-BBEE Status Level of Contributor 1 or 2	<ul style="list-style-type: none"> <li>• Valid B-BBEE Certificate / Sworn-Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline.</li> </ul>
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality	<ul style="list-style-type: none"> <li>• CIPC – Valid B-BBEE Certificate / Sworn-Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity.</li> </ul>

The promotion of supplier development through subcontracting a minimum/ Joint Venture of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people	<ul style="list-style-type: none"> <li>• Sub-contracting agreements</li> <li>• Subcontractors CIPC – Valid B-BBEE Certificate / Sworn- Affidavit / Valid B-BBEE Certificate as per DTIC guideline.</li> <li>• Declaration / Joint Venture Agreement (in case of JV, a consolidated scorecard will be accepted)</li> </ul>
Creation of new Jobs: total of 45 new jobs for the duration of the contract. <ul style="list-style-type: none"> <li>• Skilled Jobs 10</li> <li>• Semi-Skilled jobs 20</li> <li>• Unskilled jobs 15</li> </ul>	<ul style="list-style-type: none"> <li>• T2.2-29 Creation Schedule Returnable documents</li> </ul>
Non-Compliant and/or B-BBEE Level 3-8 contributors	

The maximum points for this bid are allocated as follows:

<b>DISCRIPTION</b>	<b>POINTS</b>
PRICE	80
B-BBEE Status Level of Contributor 1 or 2	5
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality	5
The promotion of supplier development through subcontracting a minimum/ Joint Venture of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people	7
Creation of new Jobs: total of 45 new jobs for the duration of the contract <ul style="list-style-type: none"> <li>• Skilled Jobs 10</li> <li>• Semi-Skilled jobs 20</li> <li>• Unskilled jobs 15</li> </ul>	3
Non-Compliant and/or B-BBEE Level 3-8 contributors	0
Total points for Price and Specific Goals must not exceed	100

**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:

1. 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;
2. the tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;
3. 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.
4. 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) is not undergoing a process of being restricted by Transnet or other state institution that Transnet may be aware of,
- c) 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,
- d) has the legal capacity to enter into the contract,
- e) 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,
- f) complies with the legal requirements, if any, stated in the tender data and
- g) is able, in the option of the employer to perform the contract free of conflicts of interest.

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

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## Annex C

### Standard Conditions of Tender

#### C.1 General

##### C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

C.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

*Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.*

*2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.*

C.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

##### C.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

##### C.1.3 Interpretation

C.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

a) **conflict of interest** means any situation in which:

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
- ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.

b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

#### **C.1.4 Communication and employer's agent**

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

#### **C.1.5 Cancellation and Re-Invitation of Tenders**

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

#### **C.1.6 Procurement procedures**

##### **C.1.6.1 General**

Unless otherwise stated in the tender data, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

##### **C.1.6.2 Competitive negotiation procedure**

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

### **C.1.6.3 Proposal procedure using the two stage-system**

#### **C.1.6.3.1 Option 1**

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

#### **C.1.6.3.2 Option 2**

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

## **C.2 Tenderer's obligations**

### **C.2.1 Eligibility**

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

### **C.2.2 Cost of tendering**

C.2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

### **C.2.3 Check documents**

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

**C.2.4 Confidentiality and copyright of documents**

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

**C.2.5 Reference documents**

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

**C.2.6 Acknowledge addenda**

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

**C.2.7 Clarification meeting**

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

**C.2.8 Seek clarification**

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

**C.2.9 Insurance**

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

**C.2.10 Pricing the tender offer**

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

**C.2.11 Alterations to documents**

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.



**C.2.12 Alternative tender offers**

C.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

**C.2.13 Submitting a tender offer**

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

C.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

**C.2.14 Information and data to be completed in all respects**

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

### C.2.15 Closing time

C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

C.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

### C.2.16 Tender offer validity

C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

C.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

### C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

**Note:** Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

### C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

### C.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

### C.2.20 Submit securities, bonds and policies

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

**C.2.21 Check final draft**

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

**C.2.22 Return of other tender documents**

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

**C.2.23 Certificates**

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

**C.3 The employer's undertakings****C.3.1 Respond to requests from the tenderer**

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

**C.3.2 Issue Addenda**

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

**C.3.3 Return late tender offers**

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

**C.3.4 Opening of tender submissions**

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where



applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.

### **C.3.5 Two-envelope system**

C.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

### **C.3.6 Non-disclosure**

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

### **C.3.7 Grounds for rejection and disqualification**

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

### **C.3.8 Test for responsiveness**

C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.



**C.3.9 Arithmetical errors, omissions and discrepancies**

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
  - (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
  - (ii) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

**C.3.10 Clarification of a tender offer**

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

**C.3.11 Evaluation of tender offers**

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.

Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.
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**The activities associated with evaluating tender offers are as follows:**

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

**C.3.11.1 General**

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

**C.3.12 Insurance provided by the employer**

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

**C.3.13 Acceptance of tender offer**

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if 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 No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her 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 opinion of the employer, to perform the contract free of conflicts of interest.

**C.3.14 Prepare contract documents**

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents and
- c) other revisions agreed between the employer and the successful tenderer.

C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

### **C.3.15 Complete adjudicator's contract**

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

### **C.3.16 Registration of the award**

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.

### **C.3.17 Provide copies of the contracts**

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

### **C.3.18 Provide written reasons for actions taken**

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

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g) is able, in the option of the employer to perform the contract free of conflicts of interest.

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

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## ***Part T2: Returnable Documents***

## ***T2.1 List of Returnable Document***

## **T2.1 List of Returnable Documents**

### **2.1.1. Specific Goals**

- a. B-BBEE Status Level of Contributor 1 or 2

**Evidence to be provided:**

- B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline.

- b. The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality. (Refer to T2.2.24)

**Evidence to be provided:**

- CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity.

- c. The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people. (Refer to T2.2.30)

**Evidence to be provided:**

- Sub-contracting agreements
- Subcontractors CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE Certificate as per DTIC guideline.
- Declaration / Joint Venture Agreement (in case of JV, a consolidated scorecard will be accepted)

- d. Creation of new Jobs: total of 45 new jobs for the duration of the contract. (Refer to T2.2.29)

**Evidence to be provided:**

- Job Creation Schedule Returnable documents

### **2.1.2. These schedules are required for pre-qualification and eligibility purposes:**

T2.2-01 **Stage One: Eligibility Criteria Schedule** - Certificate of attendance at Compulsory Tender Clarification Meeting

T2.2-02 **Stage Two as per CIDB: Eligibility Criteria Schedule** - CIDB Registration

**2.1.3. Stage Three as per CIDB: these schedules will be utilised for evaluation purposes:**

T2.03 **Evaluation Schedule:** Previous Experience

T2.04 **Evaluation Schedule:** Method statement

T2.05 **Evaluation Schedule:** Quality Management

T2.06 **Evaluation Schedule:** Environmental Management

: Environmental Declaration of Understanding

T2.07 **Evaluation Schedule:** Health and Safety Requirements

: TNPA Estimate Health and Safety Cost Breakdown

: Health, Safety Questionnaire

T2.08 **Evaluation Schedule:** Programme

**2.1.4. Returnable Schedules:**

**General:**

T2.2-09 Management & CV's of Key Persons

T2.2-10 Intention to Tender

T2.2-11 Authority to submit tender

T2.2-12 Record of addenda to tender documents

T2.2-13 Letter of Good Standing

T2.2-14 Risk Elements

T2.2-15 Proposed Organisation Staffing

T2.2-16 Site Establishment requirements

T2.2-17 Availability of Equipment and Other Resources

T2.2-18 Capacity and Ability to meet Delivery Schedule

T2.2-19 Schedule of Proposed Subcontractor

**2.1.5. Agreement and Commitment by Tenderer:**

T2.2-20 RFQ Declaration Form

T2.2-21 Service Provider Integrity Pact

T2.2-22 Certificate of Acquaintance with Tender Document

T2.2-23 RFP – Breach of Law

T2.2-24 CIDB SFU ANNEX G Compulsory Enterprise Questionnaire

T2.2-25 Supplier Code of Conduct

T2.2-26 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")



T2.2-27 Domestic Prominent Influential Persons (DPIP) Or Foreign Prominent Public Officials (FPPO)

T2.2-28 Non-Disclosure Agreement

T2.2-29 Job Creation

T2.2-30 Criteria Schedule: Sub-Contract / Joint Venture

**2.1.6. Bonds/Guarantees/Financial/Insurance:**

T2.2-31 Three (3) years audited financial statements

T2.2-32 Insurance provided by the Contractor

T2.2-33 Form of Intent to provide a Performance Guarantee

T2.2-34 Forecast Rate of Invoicing

**2.1.7. Transnet Vendor Registration Form:**

T2.2-35 Transnet Vendor Registration Form

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

**2.3. C1.2 Contract Data**

**2.4. C1.3 Forms of Securities**

**2.5. C2.1 Pricing Instructions (Bill of Quantities)**

**2.6. C2.2 Bill of Quantities**

### ***2.1.1 Specific Goals***

## **A. B-BBEE Status Level of Contributor 1 or 2**

### ***Evidence to be provided:***

- ***B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline.***

***Please attach evidence here***

***B. The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality. (Refer to T2.2.24)***

***Evidence to be provided:***

- ***CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity.***

***Please attach evidence here***

***C. The promotion of supplier development through subcontracting a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people. (Refer to T2.2.30)***

***Evidence to be provided:***

- ***Sub-contracting agreements***
- ***Subcontractors CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE Certificate as per DTIC guideline.***
- ***Declaration / Joint Venture Agreement (in case of JV, a consolidated scorecard will be accepted)***

***Please attach evidence here***

***D. Creation of new Jobs: total of 45 new jobs for the duration of the contract. (Refer to T2.2.29)***

***Evidence to be provided:***

- ***Job Creation Schedule Returnable documents***

***Please attach evidence here***

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

## T2.2-01: Eligibility Criteria Schedule: Certificate of Attendance at Tender Clarification Meeting

This is to certify that

(Company  
Name)

Represented  
by:

(Name and  
Surname)

Was represented at the compulsory tender clarification meeting

Held at:		
On (date)		Starting time:

### Particulars of person(s) attending the meeting:

Name

Signature

Capacity

### Attendance of the above company at the meeting was confirmed:

Name

Signature

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

Date



## T2.2-02: Eligibility Criteria Schedule - CIDB Grading Designation

### Note to tenderers:

Tenderers are to indicate their CIDB Grading by filling in the table below. **Attach a copy of the CIDB Grading Designation or evidence of being capable of being so registered.**

CRS Number	Status	Grading	Expiry Date

1. Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a **7GB or higher** class of construction work, are eligible to have their tenders evaluated.

### 2. Joint Venture (JV)

Joint ventures are eligible to submit tenders subject to the following:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation of not lower than one level one level below the required grading designation in the class of construction works under consideration and possesses the required recognition status; and
3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **7GB or higher** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
4. the Contractor shall provide the employer with a certified copy of its signed joint venture agreement;
5. and in the event that the joint venture is an 'Incorporated Joint Venture' the Memorandum of Incorporation to be provided within 4 (four) weeks of the Contract Date.

***2.1.3 Stage Three as per CIDB: these schedules will be utilised for evaluation purposes:***

## **T2.2-03: Evaluation Schedule - Previous Experience (40 Points)**

### **Note to Tenderers:**

#### **Previous Experience – Building Works (interior refurbishment & external civil works) 20 points**

Tenderer to submit traceable references with experience in building refurbishment and associated civil external works in relation to the scope of work in the last 5 years, and to this end shall supply a sufficiently detailed reference list with contact details of existing customers and indicate their previous experience. The tenderer to attach reference letters and completion certificates as evidence.

Reference letter must be on the letterhead of company that work was done, references should include the following:

- (1) The project description, including a brief description of building works undertaken
- (2) Client Company name,
- (3) Client contact details (email and telephone),
- (4) Project duration: start date between January 2018 to Present, which confirms project done within the past 5 (five) years signed by the client,
- (5) The reference letter should state that the work was completed to a good standard.
- (6) Completion certificates

#### **Previous Experience – Heating, Ventilation and Air Conditioning (HVAC) (10 points)**

The tenderer must specify the subcontractor to be utilized for the HVAC works and provide traceable references demonstrating at least 5 years of experience in the installation of VRV systems within the scope of work. The references should include contact details of previous customers and a comprehensive overview of their prior experience. Additionally, the selected HVAC Contractor must be approved by the manufacturer of the VRV systems for the installation of their products, and relevant certificates of approval must be submitted. The tenderer to attach reference letters and completion certificates as evidence.

Reference letter must be on the letterhead of company that work was done, references should include the following:

- (1) The project description,
- (2) Client Company name,
- (3) Client contact details (email and telephone),
- (4) Project duration: start date between January 2018 to Present, which confirms project done within the past 5 (five) years signed by the client,

(5) The reference letter should state that the work was completed to a good standard.

(6) Completion certificates

**Previous Experience – Electrical (10 points)**

The tenderer must specify the subcontractor to be utilized for the Electrical HV and MV works and provide traceable references demonstrating at least 5 years of experience in the installation. The references should include contact details of previous customers and a comprehensive overview of their prior experience. The tenderer to attach reference letters and completion certificates as evidence.

Reference letter must be on the letterhead of company that work was done, references should include the following:

- (1) The project description and details on electrical scope
- (2) Client Company name,
- (3) Client contact details (email and telephone),
- (4) Project duration: start date between January 2018 to Present, which confirms project done within the past 5 (five) years signed by the client,
- (5) The reference letter should state that the work was completed to a good standard,
- (6) Completion certificates

**Please provide your previous experience showing but not limited to refurbishment projects:**

- Building Refurbishment
- Lift and HVAC design including installation
- Electrical design and installation

Fill in as many line items as needed for the similar previous projects undertaken, starting from the most recent projects completed, include scope details:

Clients	Client contact details	Project Description	Year of project completion	Project Value

**Index of documentation attached to this schedule:**

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	<b>Building refurbishment projects</b> The tenderer has completed Construction and Refurbishment projects = 100%	<b>Traceable reference letters</b> The tenderer has submitted traceable reference letters = 100%	<b>Certificates of completion</b> The tenderer has submitted certificates of completion = 100%
<b>Points (20)</b>	<b>10</b>	<b>5</b>	<b>5</b>
<b>Score 0</b>	The tenderer has submitted no information, or the tenderer has submitted a list of projects with no traceable reference letters.		
<b>Score 20</b>	The tenderer has successfully completed one (1) to three (3) projects relative to the scope of works in the last 5 years.	The tenderer has submitted one (1) to three (3) traceable reference letters.	The tenderer has submitted one (1) to three (3) certificates of completion.
<b>Score 40</b>	The tenderer has successfully completed four (4) projects relative to the scope of works in the last 5 years.	The tenderer has submitted four (4) traceable reference letters.	The tenderer has submitted four (4) certificates of completion.
<b>Score 60</b>	The tenderer has successfully completed Five (5) projects relative to the scope of works in the last 5 years.	The tenderer has submitted Five (5) traceable reference letters.	The tenderer has submitted Five (5) certificates of completion.
<b>Score 80</b>	The tenderer has successfully completed six (6) projects relative to the scope of works in the last 5 years.	The tenderer has submitted six (6) traceable reference letters.	The tenderer has submitted six (6) certificates of completion.
<b>Score 100</b>	The tenderer has successfully completed Seven (7) or more projects relative to the scope of works in the last 5 years.	The tenderer has submitted Seven (7) or more traceable reference letters.	The tenderer has Seven (7) or more certificates of completion.

	<b>HVAC projects</b> The tenderer has completed HVAC projects = 100%	<b>Traceable reference letters</b> The tenderer has submitted traceable reference letters = 100%	<b>Certificates of completion</b> The tenderer has submitted certificates of completion = 100%
<b>Points (10)</b>	<b>5</b>	<b>3</b>	<b>2</b>
<b>Score 0</b>	The tenderer has submitted no information, or the tenderer has submitted a list of projects with no traceable reference letters.		
<b>Score 20</b>	The tenderer has successfully completed one (1) to three (3) projects relative to the scope of works in the last 5 years.	The tenderer has submitted one (1) to three (3) traceable reference letters.	The tenderer has submitted one (1) to three (3) certificates of completion.
<b>Score 40</b>	The tenderer has successfully completed four (4) projects relative to the scope of works in the last 5 years.	The tenderer has submitted four (4) traceable reference letters.	The tenderer has submitted four (4) certificates of completion.
<b>Score 60</b>	The tenderer has successfully completed Five (5) projects relative to the scope of works in the last 5 years.	The tenderer has submitted Five (5) traceable reference letters.	The tenderer has submitted Five (5) certificates of completion.
<b>Score 80</b>	The tenderer has successfully completed six (6) projects relative to the scope of works in the last 5 years.	The tenderer has submitted six (6) traceable reference letters.	The tenderer has submitted six (6) certificates of completion.
<b>Score 100</b>	The tenderer has successfully completed Seven (7) or more projects relative to the scope of works in the last 5 years.	The tenderer has submitted Seven (7) or more traceable reference letters.	The tenderer has Seven (7) or more certificates of completion.

	<b>Electrical projects</b>	<b>Traceable reference letters</b>	<b>Certificates of completion</b>
	The tenderer has completed Electrical projects = 100%	The tenderer has submitted traceable reference letters = 100%	The tenderer has submitted certificates of completion = 100%
<b>Points (10)</b>	<b>5</b>	<b>3</b>	<b>2</b>
<b>Score 0</b>	The tenderer has submitted no information, or the tenderer has submitted a list of projects with no traceable references.		
<b>Score 20</b>	The tenderer has successfully completed one (1) to three (3) projects relative to the scope of works in the last 5 years.	The tenderer has submitted one (1) to three (3) traceable reference letters.	The tenderer has submitted one (1) to three (3) certificates of completion.
<b>Score 40</b>	The tenderer has successfully completed four (4) projects relative to the scope of works in the last 5 years.	The tenderer has submitted four (4) traceable reference letters.	The tenderer has submitted four (4) certificates of completion.
<b>Score 60</b>	The tenderer has successfully completed Five (5) projects relative to the scope of works in the last 5 years.	The tenderer has submitted Five (5) traceable reference letters.	The tenderer has submitted Five (5) certificates of completion.
<b>Score 80</b>	The tenderer has successfully completed six (6) projects relative to the scope of works in the last 5 years.	The tenderer has submitted six (6) traceable reference letters.	The tenderer has submitted six (6) certificates of completion.
<b>Score 100</b>	The tenderer has successfully completed Seven (7) or more projects relative to the scope of works in the last 5 years.	The tenderer has submitted Seven (7) or more traceable reference letters.	The tenderer has Seven (7) or more certificates of completion.



## T2.2-04: Evaluation Schedule: Method Statement (15 Points)

### Note to tenderers:

Tenderer to submit a methodology which responds to the scope of work, sequencing and outlines proposed methodology of undertaking the works. This should clearly demonstrate an understanding of the total project objectives and scope.

The methodology should include the following critical elements in terms of the scope of work:

1. Demolitions and Health & Safety of building occupants.
2. Sequencing
3. New building work
4. New brickwork
5. Plumbing
6. Heating, Ventilation and Air Conditioning (HVAC)
7. Civil works for the Electrical infrastructure
8. Lift installation and commissioning.
9. Construction of concrete plinth, Installation of the generator and generator enclosure
10. Foundations and brickwork
11. Electrical lighting and power installation
12. Generator and mini substation installation and commissioning
13. Waterproofing
14. Wallpaper installation
15. Partitioning
16. Painting
17. New flooring
18. New shopfitting (kitchen cupboards)
19. New shopfronts installation
20. New ceiling and bulkhead installations
21. Joinery and carpentry installations of doors and ironmongery
22. Floor and wall tiling installations
23. Handover, commission and completion
24. Identify any challenges on this building project

**Please note: Tenderers are required to provide detailed approach methodology for the items as listed above. Each will be scored based on the linear scale below and will be averaged and weighted to provide a final score.**

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

(15 Points)	Method Statement
<b>Score 0</b>	No methodology submitted
<b>Score 20</b>	The Tender's methodology submitted addresses <11 critical elements in terms of the scope of work.
<b>Score 40</b>	The Tender's methodology submitted addresses ( $\geq 11$ - $\leq 14$ ) critical elements in terms of the scope of work.
<b>Score 60</b>	The Tender's methodology submitted addresses ( $\geq 15$ - $\leq 18$ ) critical elements in terms of the scope of work.
<b>Score 80</b>	The Tender's methodology submitted addresses ( $\geq 19$ - $\leq 23$ ) critical elements in terms of the scope of work.
<b>Score 100</b>	The Tender's methodology submitted addresses all 24 of the critical elements

## **T2.2-05: Evaluation Schedule - Quality Management (10 Points)**

### **Reference Standard – QAL-STD-0001 General Quality Requirements for Suppliers and Contractors.**

Due consideration must be given to the deliverables required to execute and complete the contract as per the Quality Management Standard stated in the Works Information and should include but not be limited to:

1. The **Project Quality Plan (PQP)** details how the Contractor's Quality System will be applied to the Scope of Work specified in the contract and shall include the following as key elements:
  - 1) Include a description of the Contractor's Project organization, with key positions and responsibilities identified and individuals named. The organization structure shall also indicate resources committed to the management and co-ordination of Quality Assurance/Quality Control (QA/QC) activities.
  - 2) Provide a description of how documents provided by Transnet to the Contractor are to be managed. Documentation management/control
  - 3) Include all quality activities relevant to the Scope of Work, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with specified Contractual requirements.
  - 4) Include a listing of all Quality Control Plans (QCP's) and associated Field Inspection Checklist (FIC'S), as applicable.
  - 5) Include a listing of all Special Processes (e.g. welding, non-destructive testing, cube testing etc.) envisaged for use.
  - 6) Control of externally provided services.
2. **Quality Control Plan (QCP)** specific to the Project but not limited to:
  1. HVAC – (40%)
  2. Lighting Installation – (30%)
  3. Construction of Concrete Plinth & Generator Enclosure – (30%)

The Quality Control Plan shall be Project Specific as per the Scope of Work and shall include the following as key elements:

- 1) Detailed sequence of activities (construction/fabrication)
- 2) Include all procedures/code specifications

- 3) Include all intervention points (i.e. hold, witness, verify)
- 4) Include all Verification documentation/Field inspection checklist
- 5) Include all relevant signatories (i.e. Contractor, Approved Inspection Authority (AIA), Transnet)

This QCP shall identify all inspection, test, and verification requirements to meet Contractual obligations, specifications, drawings, and related details including destructive and non-destructive testing, witness, and hold points.

3. A signed **Quality Policy** based on International Organisation for Standardisation (ISO 9001) that displays the five key policy requirements. These requirements include:

1. Is appropriate to the purpose and context of the organization and supports its strategic direction,
2. Provides a framework for setting quality objectives,
3. Includes a commitment to satisfy applicable requirements,
4. Includes a commitment to continual improvement of the quality management system, and
5. Is communicated and understood within the organization.

**Attached submissions to this schedule:**

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	Evaluation Category	Maximum Score	Evaluation Criteria	Rating
<b>Quality Requirements</b>  <b>(10 Points)</b>	<b>Project Quality Plan (as per QAL-STD-0001)</b>  The Project Quality Plan (PQP) details how the Contractor's Quality System will be applied to the Scope of Work specified in the contract and shall include the following as key elements:  1) Include a description of the Contractor's Project organization, with key positions and responsibilities identified and individuals named. The organization structure shall also indicate resources committed to the management and co-ordination of Quality Assurance/Quality Control (QA/QC) activities.  2) Provide a description of how documents provided by Transnet to the Contractor are to be managed. Documentation management/control  3) Include all quality activities relevant to the Scope of Work, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with specified Contractual requirements.  4) Include a listing of all Quality Control Plans (QCP's) and associated Field Inspection Checklist (FIC'S), as applicable.  5) Include a listing of all Special Processes (e.g. welding, non-destructive testing, cube testing etc.) envisaged for use.	<b>5</b>	No key elements addressed.	0
			≤2 of the Six (6) key elements met	20
			Three (3) of Six (6) key elements met	40
			Four (4) of Six (6) key elements met	60
			Five (5) of Six (6) key elements met	80
			All Six (6) and above of the key elements met	100

	6) Control of externally provided services.			
	<b>Quality Control Plans (as per QAL-STD-0001)</b>	<b>4</b>	No key elements addressed.	0
	Quality Control Plan (QCP) specific to the Project but not limited to:		One (1) of Five (5) key elements met	20
	1. HVAC – (40%)		Two (2) of Five (5) key elements met	40
	2. Lighting Installation – (30%)		Three (3) of Five (5) key elements met	60
	3. Construction of Concrete Plinth & Generator Enclosure – (30%)		Four (4) of Five (5) key elements met	80
	The Quality Control Plan shall be Project Specific as per the Scope of Work and shall include the following as key elements:		All 5 key elements are met	100
	1) Detailed sequence of activities (construction/fabrication)			
	2) Include all procedures/code specifications			
	3) Include all intervention points (i.e. hold, witness, verify)			
	4) Include all Verification documentation/Field inspection checklist			
	5) Include all relevant signatories (i.e. Contractor, Approved Inspection Authority (AIA), Transnet)			
	<b>Quality Policy</b>	<b>1</b>	No key elements addressed.	0
	Quality Policy shall include the following key policy elements:		One (1) of Five (5) key policy elements met	20
	1) is appropriate to the purpose and context of the organisation and supports its strategic direction,		Two (2) of Five (5) key policy elements met	40

	<ul style="list-style-type: none"> <li>2) provides framework for setting quality objectives,</li> <li>3) includes a commitment to satisfy applicable requirements,</li> <li>4) includes a commitment to continual improvement of QMS, and</li> <li>5) is communicated and understood within the organisation.</li> </ul>		Three (3) of Five (5) key policy elements met.	60
			Four (4) of Five (5) key elements met	80
			All Five (5) key elements met	100

## **T2.2-06: Evaluation Schedule: Environmental Management (10 Points)**

The Tenderer must review the following documents in preparation to meeting the environmental requirements, namely:

- a) Transnet Integrated Management System (TIMS) Policy Commitment Statement.
- b) TGC-ENV-STD-001 Rev 04 Construction Environmental Management Plan (CEMP).
- c) TGC-ENV-STD-002 Rev 04 Standard Environmental Specifications (SES)
- d) Standard Environmental Maintenance Management Programme for Maintenance Works;
- e) TGC-IMS-ENV-SOP-009.001 COVID-19- Health care waste management on construction sites.

Project Environmental Specification (PES) extends to TNPA minimum standards as contained in the following documents:

- TNPA Stormwater Management Plan
  - TNPA list of approved waste services Contractors
  - TNPA Asbestos Management Plan
- Project Environmental Specification (PES) also includes eThekweni bylaws such as:
    - Schedule Trades and Occupations Bylaws
    - Interim Code relating to fire prevention and flammable liquids and substances

The tenderer must provide a project specific Environmental Management System (EMS) based on an International Standard with relevant procedures to address the elements of the system. These elements or procedures must include the following:

1. The signed Environmental **Policy** based on International Organization for Standardization (ISO) that displays all key components of Top management's commitments namely:
  - Regulatory compliance and other requirements
  - Commitment to pollution prevention
  - Continual improvement
  - Provides framework for setting and reviewing objectives and targets and
  - Is communicated to all employees working for or on behalf of the Contractor

**An unsigned or undated Policy will be allocated a score of 20**



2. The tenderer must provide **procedures** for checking, monitoring and measuring the performance of the Environmental Management System. The tenderer must provide written procedures for (A-D) below.

Each of the procedures must include insight into the (6 M's)

- Methods to be used
- Man power requirements
- Money/Materials, financial requirements, resources, and capacity to undertake the works
- Measurement in terms of performance objectives, key performance indicators or targets
- Machinery, equipment, basic tools required
- Management reporting and communication requirements

3. Procedures

- A) The evaluation of compliance
- B) Reporting of Non-conformance, initiating of corrective and preventative action;
- C) Handling and Investigation of Environmental incidents;
- D) Control of Environmental Records

**Attached submissions to this schedule:**

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The 5 key policy components should be listed first and then use the measurements below.

**The scoring of the Tenderer's Environmental Submission will be as follows:**

**1. Site specific Environmental management system**

	<b>Policy</b>	<b>Checking, Monitoring and Measuring Procedures</b>
<b>(10 Points)</b>	<b>4</b>	<b>6</b>
<b>Score 0</b>	The Tenderer has submitted no information to determine a score	The Tenderer has submitted no information to determine a score
<b>Score 20</b>	Policy addresses 1 of the required elements and will most likely fail to meet the <i>Employer's</i> requirements OR The Policy is unsigned or undated.	The procedures may meet the Employer's requirements. Only 1 of the procedures (A-D) are addressed and 1 of the 6 M's are addressed.
<b>Score 40</b>	Policy addresses 2 of the required elements and is unlikely to meet the <i>Employer's</i> requirements.	The procedures may meet the Employer's requirements. Only 2 of the procedures (A-D) are addressed and 2 of the 6 M's are addressed.
<b>Score 60</b>	Policy addresses 3 of the required elements and is possibly able to meet the <i>Employer's</i> requirements.	The procedures may meet the Employer's requirements. Only 3 of the procedures (A-D) are addressed and 3 of the 6 M's are addressed.
<b>Score 80</b>	Policy addresses 4 of the required elements and is likely to ensure compliance with the stated <i>Employer's</i> requirements	The procedures may meet the Employer's requirements. All 4 of the procedures (A-D) are addressed and only 4 of the 6 M's are addressed.

<b>Score 100</b>	<p>Policy addresses 5 of the required elements and will meet the <i>Employer's</i> requirements:</p> <ul style="list-style-type: none"> <li>• Regulatory compliance and other requirements</li> <li>• Commitment to Pollution prevention</li> <li>• Continual improvement</li> <li>• Provides framework for setting and reviewing objectives and targets and</li> <li>• Is communicated to all employees working for or on behalf of the organization</li> </ul>	<p>The procedures may meet the Employer's requirements.</p> <p>All 4 of the procedures (A-D) are addressed. And more than 4 procedures of the 6 M's are addressed.</p>
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## T2-2-06a DECLARATION OF UNDERSTANDING

<b>PROJECT NAME:</b>		<b>DOCUMENT NO:</b>	
<b>PROJECT NO:</b>		<b>DATE:</b>	
<b>CONTRACTOR:</b>		<b>CONTRACT NO:</b>	

I,

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Designation)

\_\_\_\_\_  
(Representing)

Declare that I have read and understood the contents of the Construction Environmental Management Plan (ENV-STD-001) and associated documents for the above mentioned Project and Contract.

I also declare that I understand my responsibilities in terms of enforcing and implementing the Environmental Specifications for the aforementioned Contract.

Signed	Signature	Date
Place		
Witness 1:	Signature	Date
Witness 2:		

## **T2.2-07: Evaluation Schedule: Health and Safety Requirements**

Submit the following documents as a minimum with your tender:

- 1.** Safety, Health & Environmental Policy signed by the Chief Executive Officer. List the five elements -
  - Commitment to Safety, prevention of pollution,
  - Continual improvement,
  - Compliance to legal requirements, appropriate to the nature of contractor's activities,
  - Hold management accountable for development of the safety systems.
  - Include objectives and targets.
- 2.** Roles & Responsibilities, such as S16.2 CEO, CR8.1 Construction Manager, CR8.5 Safety officer, CR8.7 Construction Supervisor, CR9.1 Risk Assessor, 17.1 SHE Reps, etc. as per the Occupational health and safety Act 85 of 1993 and COVID -19 Compliance Officer.
- 3.** Overview of the project specific Task Risk Assessment (RA), indicating major activities of the project namely:
  - Site establishment (Loading and offloading of containers; connection and of electricity and water supply; termination or isolation of electrical and water supply, connection and termination of plumbing services.
  - Civil and Structural works Civil Work: (Manholes construction; Excavation/Foundations; fencing and concrete slab; brick work; plastering, working at height
  - Mechanical works: HVAC and Lifts
  - Electrical works: Cabling; Lighting; Generator; Distribution Boards
  - Architectural works: Ceiling cleanup; Replacement of ceiling; Installation of wallpaper; Painting; Replacement of carpet
- 4.** Complete and return with tender documentation the Contractor Safety Questionnaire included to this Evaluation Schedule as a returnable, attach all required supporting documents and complete your company three-years synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.
- 5.** Evidence that the Principal Contractor have made adequate provisions for the cost of Health & Safety "Activity Schedule": CR 3(5) (b)(iii) read with CR 5(1)(g)



**Attached submissions to this schedule:**

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**The scoring of the Tenderer's Health and safety requirements will be as follows:**

<b>Points (15)</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>2</b>
	<b>Policy (State points allocated)</b> 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.	<b>Roles &amp; Responsibilities</b> 1) S16.2 CEO 2) 8.1 Construction Manager - SACPCMP registration as Pr. Construction Manager, 3) 8.5 SACPMP Registered Construction Health and Safety officer, 4) 8.7 Construction Supervisor, 5) 9.1 Risk Assessor, 6) 17.1 SHE Rep as per the Occupational health and safety Act 85 of 1993 and 7) COVID-19 Compliance Officer	<b>Overview of the Baseline risk assessment</b> Indicating major activities of the project i.e. installation, commissioning and handover of the following packages: 1) Site establishment 2) Civil works and building works. 3) Architectural works 4) Mechanical works 5) Electrical works	<b>Safety Questionnaire</b> Complete and return with tender documentation the Contractor Safety Questionnaire with required all supporting documentation included as an Annexure.  The questionnaire must be fully completed. Points will be allocated to the critical areas identified in the questionnaire. <ul style="list-style-type: none"> <li>• Letter of good standing (1);</li> <li>• Health and safety plan (2);</li> <li>• Induction (1); and</li> <li>• Health and Safety resources (2).</li> </ul>	<b>Cost Breakdown Sheet.</b> Submission of completed cost breakdown sheet covering health and safety budget allocation.

<b>Score 0</b>	The Tenderer has submitted no information to determine a score.				
<b>Score 20</b>	<b>1 of the 5</b> key policy components are recognized and meet the <i>Employer's</i> requirement and it is signed by the Chief Executive Officer.	<b>≤2 of the 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>1 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Information supplied is totally insignificant / inadequate to achieve the required standard of service and total score of supporting documents as per the allocated points 01% – 30% on the returnable safety questionnaire.	Health and safety Budget submitted is totally insignificant / inadequate to achieve the required standard of service, 0% - 1% of the tender value.
<b>Score 40</b>	<b>2 of the 5</b> key policy components are recognized and meet the <i>Employer's</i> requirement and it is signed by the Chief Executive Officer.	<b>3 ≤ 4 of the</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>2 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Poor response / answer / solution lacks convincing evidence, medium risk that stated Employer's requirements will not be met and total score of supporting documents as per the allocated points 31% - 50% on the returnable safety questionnaire.	Health and safety Budget submitted is insignificant / inadequate / answer / solution to the returnable, Employer's health and safety requirements will not be met, between 1% and 2% of the tender value.



<b>Score 60</b>	<b>3 of the 5</b> key policy components are recognized and meet the <i>Employer's</i> requirements and it is signed by the Chief Executive Officer.	<b>5 of the 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>3 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Satisfactory response / answer / solution to the particular aspect of the requirement, evidence given that the stated Employer's requirements will be met and total score of supporting documents as per the allocated points 51% - 70% on the returnable safety questionnaire.	Health and safety Budget submitted is Satisfactory response / answer / solution to the returnable, Employer's health and safety requirements will be met, from 2% to 3% of the tender value.
<b>Score 80</b>	<b>4 of the 5</b> key policy components are recognized and meets the <i>Employer's</i> requirements and it is signed by the Chief Executive Officer.	<b>6 of the 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>4 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Good response / answer / solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements and total score of supporting documents as per the allocated points 71% - 90%	Health and safety Budget submitted is good response / answer /solution to the returnable, Employer's health and safety requirements will be met, between 3% to 4% of the tender value.

				on the returnable safety questionnaire.	
<b>Score 100</b>	<b>All 5 key</b> policy components are recognized and meets the <i>Employer's</i> requirements and it is signed by the Chief Executive Officer.	<b>All 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>all 5</b> submitted task risk assessments specific to the project and covers all the outline sub-activities, applicable to the task.	Very good response / answer / solution gives real confidence that the tenderer is most likely to ensure compliance with stated Employer's requirements and total score of supporting documents as per the allocated points 91% - 100% on the returnable safety questionnaire.	Health and safety Budget submitted is very good response / answer / solution to the returnable, Employer's health and safety requirements will be met, above 4% of the tender value.

## T2.2-07a TNPA Estimate Health and Safety Cost Breakdown

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			

<b>Total Health and Safety Estimate (R)</b>	
<b>Total Estimate Value (R)</b>	
<b>H&amp;S Cost as % of Tender value</b>	

## T2.2-07b Contractor 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 workday cases									
	Number of lost time injury cases									
	Number of fatal injuries									
	Total recordable frequency									
	Lost time injury frequency									
	Number of worker manhours									
	Action taken to prevent re-occurrence									
	1	Medical Treatment Case	Any occupational injury or illness requiring treatment provided by a physician or treatment provided under the direction of a physician							
	2	Restricted Workday 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)						Yes		No	
										1

2. Citations						
2A	Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years? If yes, provide details:				Yes	No
2B	Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State? If yes, provide details:				Yes	No
3. Citations						
	Does your company have a Certificate of Recognition?				Yes	No
	If yes, what is the	Certificate No:		Issue Date:		
4. Safety Program						
4A	Submit your company written health and safety plan? Submit for provide a copy for review					2
4C	Health and safety plan should contain the following elements					
		Yes	No		Yes	No
	Health and Safety Policy			Competence, Training and Awareness		
	Incident Management, reporting and Investigation			Emergency Preparedness/Response		
	Recordkeeping & Statistics/Manhours Reporting			Hazard Identification and Risk Assessment and Training		
	Reference to Legislation			Permit to Work		
	Site Establishment and Rehabilitation			Safe Work Procedures and Safe operating procedures		
	Roles and Responsibilities			Workplace Inspections		
	Alcohol, Drugs and Other Intoxicating Substances			Occupational Hygiene and Covid19		
	Personal Protective Equipment			Measuring and Monitoring		
	Working at Height			Communication, Participation and Consultation		
	Excavations			Signs and Notices		
4C	Submit your company pocket safety booklet for field distribution?					
5. Training Program						
5A	Attach orientation program for new hire employees? include a course outline. Does it include any of the following:					1
		Yes	No		Yes	No
	General Rules & Regulations			Confined Space Entry		
	Emergency Reporting			Trenching & Excavation		
	Injury Reporting			Signs & Barricades		
	Legislation			Dangerous Holes & Openings		
	Right to Refuse Work			Rigging & Cranes		
	Personal Protective Equipment			Mobile Vehicles		



	Emergency Procedures			Preventative Maintenance		
	Project Safety Committee			Hand & Power Tools		
	Housekeeping			Fire Prevention & Protection		
	Ladders & Scaffolds			Electrical Safety		
	Fall Arrest Standards			Compressed Gas Cylinders		
	Aerial Work Platforms			Weather Extremes		
5B	Submit a program for training newly hired or promoted supervisors? Tenderer must submit an outline for evaluation which include instruction on the following:					
		Yes	No		Yes	No
	Employer Responsibilities			Safety Communication		
	Employee Responsibilities			First Aid/Medical Procedures		
	Due Diligence			New Worker Training		
	Safety Leadership			Environmental Requirements		
	Work Refusals			Hazard Assessment		
	Inspection Processes			Pre-Job Safety Instruction		
	Emergency Procedures			Drug & Alcohol Policy		
	Incident Investigation			Progressive Disciplinary Policy		
	Safe Work Procedures			Safe Work Practices		
	Safety Meetings			Notification Requirements		
<b>6. Safety Activities</b>						
6A	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?					
6B	Do you hold site safety meetings for field employees? If Yes, how often?	Yes	No	Daily	Weekly	Biweekly
6C	Do you hold site meetings where safety is addressed with management and field supervisors?	Yes	No	Weekly	Biweekly	Monthly
6D	Is pre-job safety instruction provided before to each new task?	Yes	No			
	Is the process documented?	Yes	No			
	Who leads the discussion?					
6E	Do you have a hazard assessment process?	Yes	No			
	Are hazard assessments documented?	Yes	No			
	If yes, how are hazard assessments communicated and implemented on each project?					
	Who is responsible for leading the hazard assessment process?					



6F	Submit your company policies and procedures for environmental protection, spill clean-up, reporting, waste disposal, and recycling as part of the Health & Safety Program?					
6G	How does your company measure its H&S success? Attach separate sheet to explain					
<b>7. Safety Stewardship</b>						
7A	Are incident reports and report summaries sent to the following and how often?	Yes	No	Monthly	Quarterly	Annually
	Project/Site Manager					
	Vice President/Managing Director					
	Safety Director/Manager					
	President/Chief Executive Officer					
7B	How are incident records and summaries kept? How often are they reported internally?	Yes	No	Monthly	Quarterly	Annually
	Incidents totalled for the entire company					
	Incidents totalled by project					
	Subtotalled by superintendent					
	Subtotalled by foreman					
7C	How are the costs of individual incidents kept? How often are they reported internally?	Yes	No	Monthly	Quarterly	Annually
	Costs totalled for the entire company					
	Costs totalled by project					
	Subtotalled by superintendent					
	Subtotalled by foreman/general foreman					
7D	Does your company track non-injury incidents?	Yes	No	Monthly	Quarterly	Annually
	Near Miss					
	Property Damage					
	Fire					
	Security					
	Environmental					
<b>8. Personnel</b>						
List key health and safety officers planned for this project. Attach resume (CV and qualification and proof of registration with SACPCMP).						2
Name		Position / Title		Designation		
				Category	SACPCMP Number	
<b>9. References</b>						
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		Telephone Number		

## **T2.2-08: Evaluation Schedule: Programme (10 points)**

### **Note to tenderers:**

The Tenderer provides a hard copy of the proposed programme and/or makes reference to his proposed programme and electronic programme developed using a scheduling software tool. The tenderer shall provide the proposed programme detailed to minimum of level 4 showing as a minimum the following: -

Project program to indicate the logical order and timelines of all activities as per the scope of work.

Program (Schedule of work) to detail each activity and its durations in the form of Gantt chart.

Level 4 (Construction schedule) with the following requirements:

1. Work breakdown structure in logical order,
2. Durations and dates for all work is shown,
3. Key milestones and critical paths in MS project/primavera or compatible format and Basis of schedule aligned with the programme.

The Contractor indicates how he plans in achieving dates and clearly demonstrate them on the schedule by complying with Clause 31.2 of the NEC ECC-Initiate starting dates, access dates, planes completion, sectional completion dates and completion dates.

The Programme must clearly demonstrate adequate provisions for Time Risk Allowance (TRA). Time risk allowance are no float, are owned by the Tenderer, can be included in the activity duration, and illustration in the schedule in the code field or as an attachment.

The Basis of schedule document is required, stipulating, but not limited to, underlying assumptions conditions, constraints, and approach to proving the works as detailed in the programme.

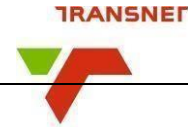




The Tenderer must demonstrate the facility meets the minimum requirement.	Points (10)	The tenderer shall demonstrate the following:					
		Score 0	Score 20	Score 40	Score 60	Score 80	Score 100
<p>Project programme to indicate the logical order and timelines of all activities as per the scope of work. Program (Schedule of work) to detail each activity and its durations in the form of Gantt chart. Level 4 (Construction schedule) with the following requirements: The Programme must be in Microsoft Project/ Primavera software or compatible format .</p> <p>1. Work breakdown structure in logical order, 2. Durations and dates for all work is shown, 3. Key milestones and critical paths in MS project/primavera or compatible format and Basis of schedule aligned with the programme.</p>	4	<p>The Tenderer has submitted no information to determine a score.</p>	<p>The programme is not acceptable as it will not satisfy project objectives or requirements which are:</p> <ol style="list-style-type: none"> <li>1. Work breakdown structure in logical order,</li> <li>2. Durations and dates for all work is shown,</li> <li>3. Key milestones and critical paths in MS project/primavera format and Basis of schedule aligned with the programme.</li> </ol> <p>The tenderer has misunderstood the Scope of Work.</p>	<p>The programme is generic, not practical, and unrealistic since the contractor did not include the long lead items, which has an impact on the project duration. The tenderer has misunderstood certain aspects of the Scope of the Works and does not deal with the critical aspects of the project/WBS element in question as a subset of the overall project.</p>	<p>The overall programme/ WBS element in question addresses specific project objectives.</p>	<p>The overall programme/ WBS element in question addresses specific project objectives. The programme/WBS element complies with the stipulations of NEC ECC Clause 31.2.</p>	<p>The overall programme/ WBS element in question addresses specific project objectives. The programme/WBS element complies with the stipulations of NEC ECC Clause 31.2. The tenderer has adequately demonstrated undertaking the procurement process for all long lead items, inductions, permits, medicals i.e. all long lead items considered with estimated durations allowed for timelines.</p> <p>Examples of long lead items:</p> <ol style="list-style-type: none"> <li>a. Generators</li> <li>b. Mini sub station</li> <li>c. Lifts</li> <li>d. Main Distribution board</li> </ol>



The Contractor indicates how he plans in achieving dates and clearly demonstrate them on the schedule by complying with Clause 31.2 of the NEC ECC- Initiate starting dates, access dates, planes completion, sectional completion dates and completion dates. The Programme must be in Microsoft Project/ Primavera software or compatible format.	2	The Tenderer has submitted no information to determine	The tenderer has not addressed critical access requirements. The tenderer has not allowed timing for approval processes for SHEQ documentation (1 week)	The tenderer has addressed critical but not all access requirements such as: a. A site access date The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation (1 week)	The tenderer has adequately addressed all access requirements such as: a. A site access date b. Sectional completion c. Project handover d. Completion dates The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation (1 week)	The tenderer has adequately addressed all access requirements such as: a. A site access date b. Sectional completion c. Project handover d. Completion dates The tenderer has allowed sufficient timing for approval processes for SHEQ documentation (2 weeks)	The tenderer has adequately addressed all access requirements such as: a. A site access date b. Sectional completion c. Project handover d. Completion dates The tenderer has allowed sufficient timing for approval processes for SHEQ documentation (2 weeks). Project phases clearly defined. Schedule showing durations of activities, Major Milestone, Planned Start Date & Planned Completion Date
The Programme must clearly demonstrate adequate provisions for Time Risk Allowance (TRA). Time risk allowance are no float, are owned by the Tenderer, can be included in the activity duration, and illustration in the schedule in the code field or as an attachment.	2	The Tenderer has submitted no information to determine a score.	The tenderer has addressed some but not all date requirements and submission contain critical logic and sequencing errors (open ends, logic that is not properly linked) which renders it unrealistic/unachievable and also which has an impact on the project overall duration. The tenderer has not demonstrated Time Risk Allowance (TRA).	The tenderer has addressed some but not all date requirements and submission contain critical logic and sequencing errors (open ends, logic that is not properly linked) which renders it unrealistic/unachievable. The tenderer has demonstrated inadequate provision for Time Risk Allowance (TRA) such as a Day time risk allowance.	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>3days)	The tenderer has addressed all date requirements correctly and the 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 and it included in the activity duration (TRA>5days)	The tenderer has addressed all date requirements correctly and the 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). The tenderer has demonstrated adequate provision for Time Risk Allowance (TRA) i.e., TRA demonstrated in sufficient quantities (TRA>7days) and correctly assigned to specific activities and/or critical components of the scope which are likely to be subject to uncertainty.



The Basis of schedule document (a document that clearly describe the development of the schedule as to how the project duration is decomposed) is required, stipulating, but not limited to, underlying assumptions conditions, constraints, and approach to proving the works as detailed in the programme.	<b>2</b>	The Tenderer has submitted no information to determine a score.	No alignment between programme and basis of schedule. The basis of schedule documentation contains insufficient detail as to how the programme was developed.	Programme and basis of schedule are fully aligned. Narrative explaining the schedule development covering more than required aspect which are: a. Project scope b. Project Purpose c. Critical Path	Programme and basis of schedule are fully aligned. Narrative explaining the schedule development covering more than required aspect which are: a. Project scope b. Project Purpose c. Critical Path d. Exceptions	Programme and basis of schedule are fully aligned. Narrative explaining the schedule development covering more than required aspect which are: a. Project scope b. Project Purpose c. Critical Path d. Exceptions e. Project Assumptions f. Execution Strategy	Programme and basis of schedule are fully aligned. Narrative explaining the schedule development covering more than required aspect which are: a. Project Risks b. Project Assumptions c. Critical Path d. Exceptions e. Project Baseline changes f. Execution Strategy g. Project Scope h. Project Purpose i. Project Background j. Path of Execution
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#### ***2.1.4 Returnable Schedules:***

***General:***

## T2.2-09: Management & CVs of Key Persons

Please describe the management arrangements for the *works* and the tenderer is to take note that evaluation of this schedule will be referred to T2.2.-15 Proposed Organisation and Staffing, therefore information submitted in both schedules should match.

Comprehensive CVs should be attached to this schedule: As a minimum each CV should address the following, but not limited to;

1. Use the **attached CV template attached below**
2. Personal particulars;
3. Qualifications (degrees, grades of membership of professional societies and Professional registrations, **all these certificates are to be attached**);
4. Skills;
5. Name of current employer and position;
6. Overview of post graduate experience (year, organisation, position and responsibilities); and
7. Outline of recent assignments / detailed experience that has a bearing on the scope of work.
8. The Port infrastructure represent scope from the quay wall to landside infrastructure and the marine scope represent waterside (dragging and reclamation).

The tenderer must be able to demonstrate that personnel have sufficient knowledge, experience and qualifications to provide the required service.

### Submit the following documents as a minimum with your tender document:

1. Details of the experience of the staff who will be employed for a scope of services:
2. Resources should include:

Key People	Names
Project manager	
Building construction Foreman/Supervisor	
Heating, Ventilation and Air Conditioning (HVAC) Technician	
Electrical Technician	
Safety officer	
Environmental Officer	

Items	Key Personnel	Qualifications	Experience
1.	Project manager	<ul style="list-style-type: none"> <li>Must have NQF level 6 or above in the built environment.</li> </ul>	Must have experience in building refurbishment or building construction projects, with traceable references in the last 10 years.
2.	Building Foreman/Supervisor	<ul style="list-style-type: none"> <li>Must have a minimum of N6 or equivalent in Building construction and trade test in building construction</li> </ul>	Must have experience in building refurbishment or building construction projects, with traceable references in the last 8 years.
3.	HVAC Technician	<ul style="list-style-type: none"> <li>Must have NQF level 6 or above HVAC design and installation, coupled with ECSA registration as a professional Technician/engineer</li> </ul>	Must have 5 years' experience post registration in similar type of projects within the HVAC design and installation, with traceable references in the last 5 years.
4.	Electrical Technician	<ul style="list-style-type: none"> <li>Must have NQF level 6 or above in the Electrical design and installation, coupled with ECSA registration as a professional Technician/engineer</li> </ul>	Must have 5 years' experience post registration in similar type of projects within the Electrical design and installation, with traceable references in the last 5 years.
5.	Safety officer	<ul style="list-style-type: none"> <li>Must have NQF level 6 Safety Management qualification or other relevant disciplines such as SAMTRAC</li> </ul>	Must have 8 years' experience in building refurbishment or building

		<ul style="list-style-type: none"> <li>Professional Registration with South African Council for the Project and Construction Management Professions (SACPCMP) or any recognised equivalent regulative professional body</li> </ul>	construction projects, with traceable references.
6.	Environmental Officer	<ul style="list-style-type: none"> <li>Must have NQF level 7 Bachelor of Science in Environmental Science / Bachelor of Arts in Environmental Management</li> </ul>	Minimum have at least 3 years work experience in environmental management within the construction environment

## CV TEMPLATE

### 1. PERSONAL PARTICULARS

NAME & SURNAME		DATE & PLACE OF BIRTH	
ID NO.		NATIONALITY	

### 2. EDUCATION AND QUALIFICATIONS

FROM	TO	INSTITUTION	DEGREE OR DIPLOMA OBTAINED

### 3. MEMBERSHIP OF PROFESSIONAL SOCIETIES

--

### 4. PROFESSIONAL STATUS

PROFESSIONAL BODY		PROFESSIONAL STATUS	
PROFESSIONAL REG. NO.		POST REGISTRATION EXPERIENCE	
PROFESSIONAL BODY		PROFESSIONAL STATUS	
PROFESSIONAL REG. NO.		POST REGISTRATION EXPERIENCE	



## 5. KNOWLEDGE SKILLS AND STRENGTHS

--

## 6. CURRENT EMPLOYER AND POSITION

NAME OF EMPLOYER		YEARS WITH EMPLOYER	
POSITION IN COMPANY		TOTAL YEARS OF EXPERIENCE	

## 7. OVERVIEW OF POST GRADUATE EXPERIENCE

YEAR	ORGANISATION	POSITION	SUMMARY OF RESPONSIBILITIES

8. OUTLINE OF RECENT ASSIGNMENTS RELEVANT TO SCOPE OF WORK				
CLIENT, CONTACT PERSON, CONTACT DETAILS	PROJECT DESCRIPTION	VALUE OF PROJECT	POSITION HELD	PROJECT STATUS
<p><b>*Attached</b></p> <ul style="list-style-type: none"> <li>Qualification Certificates</li> <li>Professional Registration Certificates</li> </ul>				

## T2.2-10: Intention to Tender

To be returned within 5 days after receipt **(23 October 2023)**

Transnet National Port Authority	TNPA/2023/08/0007/37982/RFP
Attention	Shani Evans
e-mail	Shani.kleyn@transnet.net
	Closing Date: <b>31 October 2023</b>
	<b>(16h00)</b>

### For: Refurbishment of 45 Bay Terrace Building

Check

**We: Do wish to tender** for the work and shall return our tender by **Yes ☐ No ☐**  
the due date above

Any clarifications are to be mailed to: shani.kleyn@transnet.net, and all responses will be communicated to all tenderers in writing via e-mail.

Company: .....

Contact: .....

Phone No: .....

e-mail Address: .....

REASON FOR NOT TENDERING:

\_\_\_\_\_  
\_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

## T2.2-11: 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 \_\_\_\_\_  
\_\_\_\_\_, 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

## T2.2-12: Record of Addenda to Tender Documents

This schedule as submitted confirms that the following communications received from the *Employer* before the submission of this tender offer, amending the tender documents, have been taken into account in this specific tender offer:

	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		



## **T2.2-13 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:

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



## T2.2-15: Proposed Organisation and staffing

### Attached submissions to this schedule:

.....

.....

.....

.....

.....

.....

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

[illegible]

The Tenderer to submit a list of all Equipment and other resources that will be used to execute the *works* as described in the Works Information.

[illegible]

## T2.2-18: Capacity and Ability to meet Delivery Schedule

### Note to tenderers:

The Tenderer is required to demonstrate to the *Employer* that the tenderer has sufficient current and future capacity to carry out the work as detailed in the Works Information and that the tenderer has the capacity and plans in place to meet the required delivery schedule as required. To this end, the following must be provided by the Tenderer:

A schedule detailing the following:

- Maximum quantity of work concurrently performed by the Tenderer in the recent past in order to illustrate his potential capacity to design, fabricate and/or construct work of a similar nature;
- Current and future work on his order book, showing quantity and type of equipment;
- Quantity of work for which the Tenderer has tenders in the market or is currently tendering on;
- The work as covered in this Works Information, planned and scheduled as per the Tenderer's capacities and methods but meeting the required delivery schedule.

### Index of documentation attached to this schedule:

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

## T2.2-19: 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"/>
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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"/>



#### ***2.1.4 Agreement and Commitment by Tenderer:***

## T2.2-20: RFP 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.
8. We have acquainted ourselves and agree with the content of T2.2-21 "Service Provider Integrity Pact".

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

### IMPORTANT NOTICE TO TENDERERS

- 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 Tenderer 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 Tenderer 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](http://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](mailto: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 Tenderers 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 tenderer on its List of Excluded Bidders.

## **T2.2-21 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 4.2 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.
- 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.

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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 .....

## **T2.2-22 Certificate of Acquaintance with Tender Documents**

NAME OF TENDERING ENTITY:

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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\_\_\_\_

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SIGNATURE OF TENDERER

## T2.2-23: 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:

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DATE OF BREACH:

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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\_\_\_\_

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SIGNATURE OF TENDER

## T2.2-24 : 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: \_\_\_\_\_

**The attached SBD5 must be completed for each tender and be attached as a tender requirement. (where applicable)** The National Industrial Participation Programme ("NIPP") is applicable to all government procurement contracts that have an imported content, whereby the imported content is equal to or exceeding US\$ 5 million or other currency equivalent to US\$ 5 million.

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

**Section 8: The attached SBD6.1 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	_____		

## PREFERENCE POINTS CLAIM FORM

This preference form must form part of all bids invited. It contains general information and serves as a claim for preference points for Specific Goals contribution. Transnet will award preference points to companies who provide valid proof of evidence as per the table of evidence in paragraph 4.1 below.

### 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

1.2 The value of this bid is estimated to below R50 000 000 (all applicable taxes included) and therefore the 80/20 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;
- (b) B-BBEE Status Level of Contribution; and
- (c) Any other specific goal determined in the Transnet preferential procurement policy

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

<b>DISCRIPTION</b>	<b>POINTS</b>
PRICE	80
B-BBEE Status Level of Contributor 1 or 2	5
The promotion of enterprises located in eThekwin Municipality for work to be done or services to be rendered in that Municipality	5
The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people	10
Creation of new Jobs: total of 45 new jobs for the duration of the contract <ul style="list-style-type: none"> <li>• Skilled Jobs 10</li> <li>• Semi-Skilled jobs 20</li> <li>• Unskilled jobs 15</li> </ul>	3

Non-Compliant and/or B-BBEE Level 3-8 contributors	0
Total points for Price and Specific Goals must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of evidence required for any of the specific goals together with the bid will be interpreted to mean that preference points for that specific goal 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 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);
- (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.

- (l) **Specific goals** means targeted advancement areas or categories of persons or groups either previously disadvantaged or falling within the scope of the Reconstruction and Development Programme identified by Transnet to be given preference in allocation of procurement contracts in line with section 2(1) of the PPPFA.

### 3. POINTS AWARDED FOR PRICE

#### 3.1 THE 90/10 PREFERENCE POINT SYSTEMS

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

80/20

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

Where

- Ps = Points scored for comparative price of bid under consideration  
Pt = Comparative price of bid under consideration  
Pmin = Comparative price of lowest acceptable bid

### 4. EVIDENCE REQUIRED FOR CLAIMING SPECIFIC GOALS

- 4.1 In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, preference points must be awarded to a bidder for providing evidence in accordance with the table below:

Specific Goals	Acceptable Evidence
B-BBEE Status Level of Contributor 1 or 2	Valid B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline.
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality	CIPC – Valid B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity.
The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth,	<ul style="list-style-type: none"> <li>Sub-contracting agreements</li> <li>Subcontractors CIPC – Valid B-BBEE Certificate / Sworn- Affidavit / Valid B-BBEE Certificate as per DTIC guideline.</li> </ul> <p>Declaration / Joint Venture Agreement (in case of JV, a consolidated scorecard will be accepted)</p>

women, or disabled people	
Creation of new Jobs: total of 45 new jobs for the duration of the contract.	<ul style="list-style-type: none"> <li>• T2.2-29 Creation Schedule Returnable documents</li> </ul>
<ul style="list-style-type: none"> <li>• Skilled Jobs 10</li> <li>• Semi-Skilled jobs 20</li> <li>• Unskilled jobs 15</li> </ul>	

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
<b>Large</b>	Certificate issued by SANAS accredited verification agency
<b>QSE</b>	<p>Certificate issued by SANAS accredited verification agency</p> <p>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)</p> <p>[Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at <a href="http://www.dti.gov.za/economic_empowerment/bee_codes.jsp">www.dti.gov.za/economic_empowerment/bee_codes.jsp</a>.]</p>
<b>EME<sup>1</sup></b>	<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

<sup>1</sup> 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.



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 10 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.

## 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	
-----	--	----	--


## 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,, 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: .....

## BIDDER'S DISCLOSURE (SBD 4)

### 1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as

enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

## 2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest<sup>2</sup> in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....  
.....

<sup>2</sup> the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

- 2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

**YES/NO**

- 2.3.1 If so, furnish particulars:

.....  
.....

### **3 DECLARATION**

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 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 consortium<sup>3</sup> will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 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.
- 3.5 There have been no consultations, communications, agreements or arrangements made

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<sup>3</sup> 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.

by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

- 3.6 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.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of bidder

## **T2.2-25 : 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

## **T2.2-26 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  
(.....  
insert name of Tenderer/Contractor) 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	
----	--

- 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: \_\_\_\_\_

.....(insert name of Tenderer/Contractor)

Authorised signatory for and on behalf of .....(insert name of Tenderer/Contractor) who warrants that he/she is duly authorised to sign this Agreement.

#### **AS WITNESSES:**

1. Name: \_\_\_\_\_ Signature: \_\_\_\_\_

2. Name: \_\_\_\_\_ Signature: \_\_\_\_\_

## T2.2-27 Domestic Prominent Influential Persons (DPIP) Or Foreign Prominent Public Officials (FPPO)

Transnet is free to procure the services of any person within or outside the Republic of South Africa in accordance with applicable legislation. Transnet shall not conduct or conclude business transactions, with any Respondents without having:

- Considered relevant governance protocols;
- Determined the DPIP or FPPO status of that counterparty; and
- Conducted a risk assessment and due diligence to assess the potential risks that may be posed by the business relationship.

As per the Transnet Domestic Prominent Influential Persons (DPIP) and Foreign Prominent Public Officials (FPPO) and Related Individuals Policy available on Transnet website

<https://www.transnet.net/search/pages/results.aspx?k=FPIDP#k=DPIP>, Respondents are required to disclose any commercial relationship with a DPIP or FPPO (as defined in the Policy) by completing the following section:

Below form contains personal information as defined in the Protection of Personal Information Act, (the "Act"). By completing the form, the signatory consents to the processing of her/his personal information in accordance with the requirements of the Act. Consent cannot unreasonably be withheld.

**I, the Respondent** (Complete with a "Yes" or "No")

DPIP/FPPO	Is the Respondent Related to a DPIP/FPPO	Is the Respondent Associated to a DPIP/FPPO
All known business interests, in which a DPIP/FPPO may have a direct/indirect interest or significant participation or involvement.		
Name of Entity/Individual	Role in the Entity/Business (Nature of Interest/Participation)	Shareholding %
Registration Number	Address	Status (Mark the applicable one with an X)
		Inactive Active

Respondents declaring a commercial relationship with a DPIP or FPPO are to note that Transnet is required to annually publish on its website a list of all business contracts entered into with DPIP or FPPO. This list will include successful Respondents, if applicable.

## 2. SERVICE LEVELS

2.1 Transnet reserves the right to request that any member of the Service provider's team involved on the Transnet account be replaced if deemed not to be adding value for Transnet.

2.2 The Service provider guarantees that it will achieve a 95% [ninety-five per cent] service level on the

following measures:

a) Random checks on compliance with quality/quantity/specifications

b) On-time delivery

2.3 The Service provider must provide a telephone number for customer service calls.

2.4 Failure of the Service provider to comply with stated service level requirements will give Transnet the right to cancel the contract in whole, without penalty to Transnet, giving 30 [thirty] calendar days' notice to the Service provider of its intention to do so.

### Acceptance of Service Levels:

YES	
-----	--

NO	
----	--

## **T2.2-28 NON-DISCLOSURE AGREEMENT**



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

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

**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 Transnet Corporate Centre 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 Tender 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** (hereinafter Tender) 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 Tender or for the subsequent performance of any contract between the parties in relation to the Tender.
- 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 Tender 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 Tender 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 Tender 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 Tender 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 Tender 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.

Signed

Date

Name

Position

Tenderer

## T2.2-29: JOB-CREATION SCHEDULE

The Government has identified State Owned Enterprises sourcing activities as a key enabler to achieve the National Development Plan (NDP) objective of reducing unemployment from the current baseline of 28% to 6%.

In order to give effect to these job creation objectives, Tenderers are required to provide the following undertaking of new jobs that will be created (either by them or by their subcontractors) should they be awarded this tender.

**Tenderers to note, that if successful, any deviations from the Job creation Schedule in the contract phase will be subject to acceptance by the *Project Manager* in terms of the Conditions of Contract. Please also note the applicable Z clauses in Contract Data by *Employer*.**

(a) Please indicate total number of new jobs that will be created over the term of the contract:

Total number and value of new jobs created	Total number of new jobs	Total rand value of new jobs created

(b) Of the total number of new jobs created, please indicate the number and value of new jobs to be created for the following designated groups:

	Total number of new jobs	Total rand value of new jobs
Black men		
Black women		
Black Youth		
Black people living in rural or underdeveloped areas or townships		
Black People with Disabilities		

(c) Of the total number of new jobs created, please indicate the number of skilled, semi-skilled and unskilled new jobs that will be created over the term of the contract:

	<b>Total number of Skilled jobs</b>	<b>Total number of Semi-skilled jobs</b>	<b>Total number of Unskilled jobs</b>
Black men			
Black women			
Black Youth			
Black people living in rural or underdeveloped areas or townships			
Black People with Disabilities			
Other			

(d) Please indicate the number of new jobs to be created, broken down per quarter over the term of the contract.

<b>Year 1</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				



Year 2	Q1	Q2	Q3	Q4
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

## **T2.2-30 Criteria Schedule: Sub-Contract/ Joint Venture:**

In terms of SBD 1 Preference Point form, tenderers are required to commit to specific goals by Sub-contracting/ Joint Venture **a minimum of 30%** to one or more company/ies that meets the requirements of the Transnet Preferential Procurement Policy as indicated hereto:

1. The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of a contract to South African Companies which are:
  - EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people.

**Tenderer to note that if successful, any deviations from the list of proposed sub-contractors/ joint venture in the contract phase will be subject to acceptance by the *Project Manager* in terms of the Conditions of Contract. Please also note the applicable Z clauses in Contract Data by *Employer*.**

Provide **detailed information** of the proposed Sub-contractors or joint venture below:

	<b>Name of proposed Subcontractor/ Joint Venture</b>	<b>Address and Region</b>	<b>Nature and extent of work</b>	<b>B-BBEEE Certificates or Sworn Affidavit attached behind this schedule? Yes/No</b>	<b>Percentage (%) of the sub-contracted/ joint ventured works in terms of the tendered total of the prices.</b>
<b>1.</b>					
<b>2.</b>					
<b>3.</b>					
<b>4.</b>					
<b>5.</b>					
<b>6.</b>					
<b>7.</b>					
<b>8.</b>					
<b>9.</b>					

**The Tenderer is to submit the following document or copy thereof for each of the proposed sub-contractor(s) with this schedule:**

- Valid B-BBEE Sworn Affidavit, CIPC B-BBBEE certificate asper DTIC guidelines or B-BBEE Certificate of each of the proposed sub-contractor(s).
- Agreement or Letter of Intent confirming the Sub-Contracting Agreement/ joint venture agreement between the tenderer and proposed sub-contractor(s)/Joint Venture

**NOTE TO TENDERERS: FAILURE TO PROVIDE THE ABOVE DOCUMENT WILL RESULT IN THE PROPOSED SUBCONTRACTOR'S PERCENTAGE BEING DISCOUNTED TO ZERO.**

Transnet reserves the right to request additional information of the proposed sub-contractor(s)/ joint venture should it be deemed necessary to verify the compliance to the black ownership percentage or sub-contractor(s)/ joint venture entity size. These may include but not limited to;

- Copies of the identity documents of the members of shareholders of the sub-contractor(s)/ joint venture;
- Copies of the Audited Financial Statements or Income Statement of the sub-contractor(s)/ joint venture.

#### ***2.1.6 Bonds/Guarantees/Financial/Insurance:***

## T2.2-31: 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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.....

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.....

.....

**Contractor:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Contractor:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Contractor:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 1:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 2:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 3:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 4:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 5:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 6:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 8:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 9:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 10:**

Date of audited financial statement	Total Revue for year
	R
	R
	R



## T2.2-32: 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.			
(Other)			

**To Whom It May Concern,**

**CERTIFICATE OF INSURANCE: TRANSNET (SOC) LIMITED – PRINCIPAL CONTROLLED INSURANCE**

In our capacity as Insurance Brokers to the Transnet Group of Companies, we hereby certify that the undermentioned insurances are currently in place:

INSURED: Transnet (SOC) Limited

PERIOD: 1 April 2023 to 31 March 2024 (Both days inclusive)

DIVISION: Transnet Freight Rail, Transnet Engineering, Transnet Properties, Transnet Pipelines, Transnet National Ports Authority and Transnet Port Terminals

THE INSURED'S VAT NO: 4720103177

THE INSURED'S COMPANY REGISTRATION NO: 1990/000900/30

POSTAL ADDRESS (Head Office) Carlton Centre, 150 Commissioner Street, Johannesburg, 2001

**CONTRACT WORKS INSURANCE**

Cover Provided : Contract Works - Physical loss or damage to the Property Insured which being materials, plant and other things for incorporation into the permanent works.

Insurer : Mirabilis (Santam Limited)

Policy Number : MZAR35023-CAR

The Contract Site : Any location within the Territorial Limits upon which The Insured Contract is to be executed or carried out as more fully defined in The Insured Contract documents together with so much of the surrounding area as may be required or designated for the performance of The Insured Contract.

Territorial Limits : The Republic of South Africa.

Additional Co-Insureds:

The Contractor: All Contractors undertaking work in connection with The Insured Contract including the Employer to the extent that the Employer undertakes work in connection with The Insured Contract;

Sub-Contractors: All Sub-Contractors employed by the Contractor and all other Sub- Contractors (whether nominated or otherwise) engaged in fulfilment of The Insured Contract; and to the extent required by any contract or agreement; transporters, suppliers, manufacturers, vendors, other persons, persons providing storage facilities, plant

owners and/or operators in respect of liability loss or damage arising out of The Insured Contract; project managers, architects, land surveyors, quantity surveyors, engineers and other advisors or consultants or sub-consultants appointed in the performance of the Insured Contract activities arising at the Contract Site provided always that any such person shall not be insured hereunder in respect of liability loss or damage arising out of such person's error or omission in the performance of the professional services for which he was appointed;

**Provincial & Government:** any Local Provincial or Government Department with which the Insured enters into any contract or agreement for the performance of The Insured Contract; all for their respective rights and interests.

**Insured Contracts :** All Contracts (including any undertaking awarded or commenced prior to Inception of the Period of Insurance) involving design, construction, Performance Testing and Commissioning in respect of the Works and shall Include capital expenditure, upgrade, modification, maintenance or overhaul, refurbishment, renovation, retrofitting or alterations and additions to existing facilities undertaken by the Insured or other Insured Parties acting on their behalf but **excluding**;

- a) contracts which at award stage have a value in excess of R 1,000,000,000;
- b) contracts with an estimated construction period exceeding 48 months but increasing to 60 months in respect of rail maintenance contracts and Transnet Freight and Rail contracts for logistical support for inline inspections and identification of defects over a 5 year period in respect of Transnet's pipeline assets (excluding Defects Liability/Maintenance period);
- c) contracts involving construction or erection of petrochemical manufacturing plant(s) but this exclusion shall not apply to pipelines and other associated works undertaken by or on behalf of the Insured;
- d) contracts in or on any aircraft;
- e) Off-shore contracts;
- f) Wet Risk Contracts which at award exceeds R500,000,000;
- g) Dam Contracts
- h) Tunnel contracts which at award exceeds R50,000,000;
- i) Tunnel contracts using tunnel boring machines;
- j) Underground Mining Contracts;
- k) Horizontal Directional Drilling Contracts which at award exceeds R50,000,000;
- l) Horizontal Directional Drilling Contracts where total drilling exceeds 1 km;
- m) Horizontal Directional Drilling Contracts for pipe diameters greater than 76 cm.

### Definitions

1. *"Off-shore contracts" means all works and installations in the sea or on the seabed including dredging which are accessible only by ship boat barge or helicopter and do not constitute normal wet works like harbours moles bridges wharves or sewage or cooling water intake or outlet facilities. "OffShore Contracts" shall include oilrigs and oil platforms (but not including oil platforms when connected to the land on completion). The term shall not apply to pre-fabrication works on land associated with an Off-Shore Contract.*

- 2 *"Wet Risk Contracts" shall mean any Contract and/or Works where more than thirty-five (35) percentile of its value is in a permanent body of water or is below the high water mark of any tidal body of water. The term shall include contracts for the construction of wharves, piers, marinas, causeways, breakwaters, jetties, dry docks and offshore pipelines when connected directly to on-shore facilities and canal developments. Wet Risks shall exclude Off- Shore Contracts;*
- 3 *"Dam Contracts", which term shall include weirs and hydroelectric projects involving the construction of dams or weirs;*
- 4 *"Horizontal Directional Drilling Contracts", means micro-tunnelling work for the construction of tunnels utilising surface based horizontal directional drilling equipment.*
- 5 *Tunnels" means Tunnels (Including declines) involving all of the following;*
  - (a) Works below ground level; and
  - (b) Tunnelling machinery below ground level; and
  - (c) A tunnelling crew operating the machinery below ground level;
  - (d) But shall not include Horizontal Directional Drilling Contracts
- 6 *"Horizontal Directional Drilling Contracts", means micro-tunnelling work for the construction of tunnels utilising surface based horizontal directional drilling equipment.*
- 7 *"Underground Mining Contracts", which shall mean any contract involving underground mining.*

Testing Period: 120 Days not consecutive.

Maintenance Period : 12 Months

Main Policy Extensions :

- Costs & Expenses - Limited to maximum of R50,000,000.
- Expediting Measures – Limited to a maximum of R50,000,000.
- Professional Fees In Reinstatement Of Property Insured - Limited to a maximum of R50,000,000.
- Costs & Expenses For Removal Of Debris No Damage - Limited to a maximum of R50,000,000.
- Surrounding Property in care custody or control of the contractor – Limited to a maximum of R55,000,000.
- Fire Brigade & Public Authorities - Limited to a maximum of R10,000,000.
- Public Authority Reinstatement Costs - Limited to a maximum of R20,000,000
- Public Relationship Costs - Limited to a maximum of R1,000,000.
- Records - Limited to a maximum of R2,000,000.
- Removal to Gain Access - Limited to a maximum of R20,000,000

- Road Reserve and Servitude Extensions - Limited to a maximum of R10,000,000
- Search & Locate Costs - Limited to a maximum of R20,000,000.
- Borrowing Of Plant For Commissioning Purposes - Limited to a maximum of R10,000,000
- Escalation during Construction – 30%
- Marine Contribution Clause
- Claim Preparation Costs – Limited to a maximum of R10,000,000

**Main Policy Exclusions :**

- War
- Nuclear Energy Risks
- Terrorism
- Computer Loss General Exception
- DE4 (All types of Works) for defective material workmanship design plan or specification.
- LEG 3 (Mechanical or Electrical Engineering Works only) for defective material workmanship design plan or specification. Limited to maximum of 15% of the total estimated contract value.
- Loss or damage arising during air transit or any ocean voyage or whilst in storage thereafter.
- Occurring during any defects/maintenance period unless cause occurred prior to such defects/maintenance period
- Disappearance or by shortage revealed during routine inventory or periodic stocktaking.
- Consequential loss of whatsoever nature.
- Normal wear and tear, normal atmospheric conditions, rust, erosion, corrosion or oxidisation.
- Due to its own explosion breakdown or derangement occurring after the Testing Period which has operated under load conditions.
- Second hand property due to its own electrical or mechanical breakdown or explosion.
- Cyber and Data

**Deductibles:**

In respect of loss or damage:

Major Perils shall mean damage caused by storm, rain, tempest, wind, flood, theft, malicious damage, subsidence, collapse, earthquake, testing or commissioning and the consequences of defective design, specification, materials or workmanship (DE4).

Minor Perils shall mean damage caused by a peril not defined as Major Perils defined above.

Contracts with a contract value :	Major perils	Minor perils
0 to R100,000,000	R25,000	R15,000
R100,000,001 to R250,000,000	R50,000	R15,000

R250,000,001 to R500,000,000	R100,000	R25,000
R500,000,001 to R1,000,000,000	R150,000	R25,000

Minimum wet risk deductible of R100,000 per occurrence to apply.

LEG 3 Deductible (Only in respect of Mechanical and Electrical contracts);

Contracts with a contract value	Deductible
0 to R500,000,000	R1,000,000 per occurrence
R500,000,001 to R1,000,000,000	R1,500,000 per occurrence

## **PUBLIC LIABILITY**

Cover Provided :	Contract Works Public Liability – cover the Insured's legal liability in respect of loss or damage or injury to third parties arising out of work performed in respect of the Insured Contracts.
Insurer :	Stalker Hutchinson (Santam Limited)
Policy Number:	6000/132335
Territorial Limits :	The Republic of South Africa.
Insured Contracts:	<p>All contracts (including any undertaking awarded or commenced prior to inception of the period of Insurance) involving design, construction, performance testing and commissioning in respect of the works and shall include capital expenditure, upgrade, modification, maintenance or overhaul, refurbishment, renovation, retrofitting or alterations and additions to existing facilities undertaken by the Insured or other Insured Parties acting on their behalf but <b>Excluding</b>:</p> <ul style="list-style-type: none"> <li>a) Contracts which at award stage have a value in excess of R 1,000,000,000.</li> <li>b) Contracts with an estimated construction period at award exceeding 48 months but 60 months in respect of contracts awarded prior to 1 April 2020 for rail maintenance contracts For Transnet Freight &amp; Rail and for Transnet Pipeline's logistical support for inline inspections and identification of defects in respect of Transnet's pipeline assets (all excluding Defects Liability/Maintenance period).</li> <li>c) Contracts with a Contractual Defects Liability Maintenance Period exceeding 24 months.</li> <li>d) Contracts involving construction or erection of petrochemical manufacturing plant(s) but this exclusion shall not apply to pipelines and other associated works undertaken by or on behalf of the Insured.</li> <li>e) Contracts in or on any aircraft.</li> <li>f) Off-shore contracts - "Off-shore contracts" means all works and installations in the sea or on the seabed and do not constitute normal Wet Risk Contracts like harbours, moles, bridges, wharves or sewage or cooling water intake or outlet facilities, piers, marinas, causeways, breakwaters, jetties, dry docks and</li> </ul>

offshore pipelines when connected directly to onshore facilities and canal developments. "Off-Shore contracts" shall include oilrigs and oil platforms.

**Policy Limits:**

Contractors Public Liability	R100,000,000 any one occurrence / unlimited during the Period of Insurance
Contractors Negligent Removal or weakening of Support	R100 000 000 any one occurrence and R100,000,000 per site in the aggregate during the Period of Insurance.
Statutory Legal Defence Costs	*R5 000 000 in the aggregate during the Period of Insurance.
Arrest / Assault / Defamation	*R5 000 000 in the aggregate during the Period of Insurance.
Prevention of Access	*R5 000 000 in the aggregate during the Period of Insurance.
Trespass / Nuisance	*R5 000 000 in the aggregate during the Period of Insurance.
Claims Preparation Costs	R5 000 000 any one occurrence

\*Where the limits are noted as in the aggregate during the policy period of insurance, that such aggregated limit is applicable to all Transnet Insured Contracts collectively and in total and does not apply to each contract separately.

**Deductible(s) :** R50,000 per occurrence but increased to R5,000,000 in respect of Spread of Fire and/or Hot Works and R250,000 in respect of Sudden and Accidental Pollution and/or Goods on the Hook and/or R150,000 in respect of Developers Removal of Support.

**General Policy Exclusions :**

The policy does not cover:-

- deliberate, conscious and intentional disregard to take reasonable precautions.
- fines, penalties, punitive and exemplary damages.
- Pollution unless caused by a sudden, unintended and unexpected occurrence.
- cost of removing, nullifying or cleaning up the effects of pollution unless caused by a sudden, unintended and unexpected occurrence.
- the hazardous nature of asbestos.
- War And Terrorism Risks.
- Nuclear Risks.
- Actual or alleged unlawful competition, unfair practices, abuse of monopoly power, cartel activities
- Compulsory Insurance

- Loss or damage and any consequence therefrom to any Data. •
- Sanctions Exclusion
- Grid Failure

## PROFESSIONAL INDEMNITY

Cover Provided :

Professional Indemnity

- In respect of damages which the Insured shall become legally liable to pay in consequence of neglect, error or omission by or on behalf of the Insured in the conduct or execution of their Professional Activities and Duties as defined.
- Prior To Handover/Rectification - against loss arising out of any defect in the works discovered prior to the issue of any practical completion or take-over certificate provided that any such defects are caused by a negligent breach of a Professional Activity or Duty by the Insured in consequence of neglect, error or omission by or on behalf of the Insured.

Insurer :

Stalker Hutchinson (Santam Limited)

Policy Number:

6000/132337

Jurisdiction :

Worldwide excluding North America

Insured Contracts:

All contracts (including any undertaking awarded or commenced prior to inception of the period of Insurance) involving design, construction, performance testing and commissioning in respect of the works and shall include capital expenditure, upgrade, modification, maintenance or overhaul, refurbishment, renovation, retrofitting or alterations and additions to existing facilities undertaken by the Insured or other Insured Parties acting on their behalf but **Excluding**:

- Contracts which at award stage have a value in excess of R 1,000,000,000.
- Contracts with an estimated construction period at award exceeding 48 months (excluding Defects Liability/Maintenance period).
- Contracts with a Contractual Defects Liability Maintenance Period exceeding 24 months.
- Contracts involving construction or erection of petrochemical manufacturing plant(s) but this exclusion shall not apply to pipelines and other associated works undertaken by or on behalf of the Insured.
- Contracts in or on any aircraft.
- Off-shore contracts - "Off-shore contracts" means all works and installations in the sea or on the seabed and do not constitute normal Wet Risk Contracts like harbours, moles, bridges, wharves or sewage or cooling water intake or outlet facilities, piers, marinas, causeways, breakwaters, jetties, dry docks and offshore pipelines when connected directly to onshore facilities and canal developments. "Off-Shore contracts" shall include oilrigs and oil platforms.

Limit Of Indemnity:

Professional Indemnity -

\*R100,000,000 in the aggregate during the policy period of insurance.



\*Where the limit is noted as in the aggregate during the policy period of insurance, that such aggregated limit is applicable to all Transnet Insured Contracts collectively and in total and does not apply to each contract separately.

**Policy Extension  
Limits Of Indemnity:**

Claims Preparation Costs -	*R7,500,000 in the aggregate during the policy period of insurance.
Loss of Documents -	*R2,000,000 in the aggregate during the policy period of insurance.
Statutory Defence Costs -	*R5,000,000 in the aggregate during the policy period of insurance.
Defamation -	*R5,000,000 in the aggregate during the policy period of insurance.
Infringement of Copyright -	*R5,000,000 in the aggregate during the policy period of insurance.

\*Where the limits are noted as in the aggregate during the policy period of insurance, that such aggregated limit is applicable to all Transnet Insured Contracts collectively and in total and does not apply to each contract separately.

**Deductibles:**

R5,000,000 each and every but R10,000 in respect of Claims Preparation Costs, Loss of Documents, Statutory Defence Costs, Defamation and Infringement Of Copyright.

**Policy Special Conditions :**

Condition precedent to liability that the Insured is fully qualified and registered with the relevant Industry Body/Association in terms of legislation as applicable.

Prior to hand over/rectification – the insured must give prior written notice to the Insurers of the intention to take remedial action to rectify such defect and obtain the Insurers' written agreement to such action being taken and the costs and expenses expected to be expended.

**Policy Main Exclusions:**

- Excludes all consequential loss other than cost of re-design, rectification and replacement as a consequence of the defect.
- Excludes Supervision.
- Excludes liability arising out of environmental impairment / pollution
- Excludes the cost of removing, nullifying or cleaning-up the effects of environmental impairment/ pollution.
- Excludes war, invasion, acts of foreign enemies, hostilities or warlike operations (whether war be declared or not), civil war, rebellion, revolution, insurrection, civil commotion assuming the proportions of or amounting to an uprising, military or usurped power, any act of terrorism and nuclear risks.
- Excludes fines, penalties, punitive and exemplary damages, multiplication of compensatory damages and/or any other noncompensating damages of any kind.
- Excludes liability from the hazardous nature of asbestos.
- Excludes medical malpractice.

- Excludes failure to meet contractual requirements relating to efficiency, output or durability.
- Excludes failure to meet completion dates
- Excludes the estimation of probable costs other than cost advice and cost planning services normally provided by a Quantity Surveyor or Project manager.
- Excludes incorrect authorisation of payment.
- Excludes breach of any statutory regulation.
- Excludes liability from the insolvency, liquidation or judicial management of the Insured.
- Excludes the certification of value of work executed by any contractor where the Insured has an equity interest in such contractor;
- Excludes liability due to unlawful competition, unfair practices, abuse of monopoly power, cartel activities or breach of a competitions ac
- Sanctions Exclusion
- Grid Failure

**This certificate of the insurance cover arranged is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policies issued by Insurers.**

Dennis Govender



Chief Broking Officer

## T2.2-33: Form of Intent to Provide a Performance Guarantee

It is hereby agreed by the Tenderer that a Performance Guarantee drafted **exactly** as provided in the tender documents will be provided by the Guarantor named below, which is a **bank or insurer registered in South Africa**:

Name of Guarantor  
(Bank/Insurer)

Address

The Performance Guarantee shall be provided within **2 (Two)** weeks after the Contract Date defined in the contract unless otherwise agreed to by the parties.

Signed

Name

Capacity

On behalf of (name of  
tenderer)

Date

### Confirmed by Guarantor's Authorised Representative

Signature(s)

Name (print)

Capacity

On behalf of Guarantor  
(Bank/insurer)

Date

## **T2.2-34: Forecast Rate of Invoicing**

Tenderer to submit the forecast rate of invoicing (cash-flow) based on the Tender Price and Tender Programme.

### **Index of documentation attached to this schedule:**

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### ***2.1.7Transnet Vendor Registration Form:***

## T2.2-35 SUPPLIER DECLARATION FORM

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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](http://www.thedti.gov.za) or EME certificates at CIPC from [www.cipic.co.za](http://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](http://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.



## SUPPLIER DECLARATION FORM

### Supplier Declaration 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
	Education al Institution	Specialise d Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office

Did your company previously operate under another name?	Yes		No			
If <b>YES</b> 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

	Education al Institution	Specialise d Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office
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Your Current Company's VAT Registration Status	
VAT Registration Number	
If <b>Exempted from VAT registration</b> , 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	<R10Million <b>EME</b>	>R10Million <R50Million <b>QSE</b>	>R50Million <b>Large Enterprise</b>
--	---------------------------	--	--

Does your company have a valid proof of B-BBEE status?						Yes		No				
Please indicate your Broad Based BEE status (Level 1 to 9)				<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
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

YES ☐ NO ☐

<p>criterion if it is a Qualifying Small Enterprise ("QSE"), as detailed in Statement 400 of the New Codes.</p> <p>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.</p>	
<p><b>FIRST TIME SUPPLIER</b></p> <p>A supplier that we haven't as yet Traded within Transnet and will be registered via our database for the 1<sup>st</sup> time.</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>
<p><b>SUPPLIER DEVELOPMENT PLAN</b></p> <p>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 &amp; BDO etc.).</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>
<p><b>DEVELOPMENT PLAN DOCUMENT</b></p> <p>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.</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p> <p>*If Yes- Attach supporting documents</p>
<p><b>ENTERPRISE DEVELOPMENT BENEFICIARY</b></p> <p>A supplier that is not as yet in our value chain that we are assisting in their developmental area.</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>
<p><b>SUPPLIER DEVELOPMENT BENEFICIARY</b></p> <p>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.)</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>
<p><b>GRADUATION FROM ED TO SD BENEFICIARY</b></p>	

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"/>
<b>ENTERPRISE DEVELOPMENT RECIPIENT</b>	
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"/>

<b>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</b>			
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,

<b>Full name &amp; Surname</b>	
<b>Identity number</b>	

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 of the following enterprise and am duly authorised to act on its behalf:

<b>Enterprise Name:</b>	
<b>Trading Name (If Applicable):</b>	
<b>Registration Number:</b>	
<b>Enterprise Physical Address:</b>	
<b>Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):</b>	
<b>Nature of Business:</b>	
<b>Definition of "Black People"</b>	<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> <p>(a) who are citizens of the Republic of South Africa by birth or descent;</p> <p>or</p> <p>(b) who became citizens of the Republic of South Africa by naturalisation-</p> <p>i. before 27 April 1994; or</p> <p>ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"</p>
<b>Definition of "Black Designated Groups"</b>	<p>Black Designated Groups means:</p> <p>(a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution;</p> <p>(b) Black people who are youth as defined in the National Youth Commission Act of 1996;</p>

	<p>(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;</p> <p>(d) Black people living in rural and under developed areas;</p> <p>(e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;”</p>
--	--

3. I hereby declare under Oath that:

- The Enterprise is \_\_\_\_\_% Black 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 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 Financial Statements/Management Accounts and other information available on the latest financial year-end of \_\_\_\_\_, 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	<b>Level One</b> (135% B-BBEE procurement recognition level)	
At Least 51% black owned	<b>Level Two</b> (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 Oaths**

Signature & stamp

## APPENDIX D

### SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE – GENERAL

I, the undersigned,

<b>Full name &amp; Surname</b>	
<b>Identity number</b>	

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 of the following enterprise and am duly authorised to act on its behalf:

<b>Enterprise Name:</b>	
<b>Trading Name (If Applicable):</b>	
<b>Registration Number:</b>	
<b>Enterprise Physical Address:</b>	
<b>Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):</b>	
<b>Nature of Business:</b>	
<b>Definition of "Black People"</b>	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 – (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- 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;"
<b>Definition of "Black Designated Groups"</b>	"Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution;

	<p>(b) Black people who are youth as defined in the National Youth Commission Act of 1996;</p> <p>(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;</p> <p>(d) Black people living in rural and under developed areas;</p> <p>(e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;”</p>
--	---

3. I hereby declare under Oath that:

- The Enterprise is \_\_\_\_\_% Black 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 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 Financial Statements/Management Accounts and other information available on the latest financial year-end of \_\_\_\_\_, 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	<b>Level One</b> (135% B-BBEE procurement recognition)	
At least 51% Black Owned	<b>Level Two</b> (125% B-BBEE procurement recognition level)	
Less than 51% Black Owned	<b>Level Four</b> (100% 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 Oaths**

Signature & stamp

## 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 <b>bank stamp not older than 3 Months &amp; sign by Bank Teller</b> ).		
4. Certified ( <b>Not Older than 3 Months</b> ) 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 <b>Physical</b> and <b>Postal</b> address.		
8. Original or certified copy of SARS Tax Clearance certificate and Vat registration certificate.		
9. BBBEE certificate and detailed scorecard from a <b>SANAS</b> Accredited Verification Agency and/or Sworn Certified Affidavit.		
10. Central Supplier Database (CSD) Summary Registration Report.		

## REGULATIONS GOVERNING THE ADMINISTERING OF AN OATH OR AFFIRMATION

Act

### Published under

GN R1258 in GG 3619 of 21 July 1972  
as amended by

GN 1648 in GG 5716 of 19 August 1977  
GN R1428 in GG 7119 of 11 July 1980  
GN R774 in GG 8169 of 23 April 1982

The State President has, in terms of section 10 of the Justices of the Peace and Commissioners of Oaths Act, 1963 (Act 16 of 1963), been pleased to make the following regulations:

**1** (1) An oath is administered by causing the deponent to utter the following words: 'I swear that the contents of this declaration are true, so help me God'.

(2) An affirmation is administered by causing the deponent to utter the following words: 'I truly affirm that the contents of this declaration are true'.

**2** (1) Before a commissioner of oaths administers to any person the oath or affirmation prescribed by regulation 1 he shall ask the deponent-

- (a) whether he knows and understands the contents of the declaration;
- (b) whether he has any objection to taking the prescribed oath; and
- (c) whether he considers the prescribed oath to be binding on his conscience.

(2) If the deponent acknowledges that he knows and understands the contents of the declaration and informs the commissioner of oaths that he does not have any objection to taking the oath and that he considers it to be binding on his conscience the commissioner of oaths shall administer the oath prescribed by regulation 1(1).

(3) If the deponent acknowledges that he knows and understands the contents of the declaration but objects to taking the oath or informs the commissioner of oaths that he does not consider the oath to be binding on his conscience the commissioner of oaths shall administer the affirmation prescribed by regulation 1 (2).

**3** (1) The deponent shall sign the declaration in the presence of the commissioner of oaths.

(2) If the deponent cannot write he shall in the presence of the commissioner of oaths affix his mark at the foot of the declaration: Provided that if the commissioner of oaths has any doubt as to the deponent's inability to write he shall require such inability to be certified at the foot of the declaration by some other trustworthy person.

**4** (1) Below the deponent's signature or mark the commissioner of oaths shall certify that the deponent has acknowledged that he knows and understands the contents of the declaration and he shall state the manner, place and date of taking the declaration.

(2) The commissioner of oaths shall-

- (a) sign the declaration and print his full name and business address below his signature; and
- (b) state his designation and the area for which he holds his appointment or the office held by him if he holds his appointment *ex officio*.

[Subreg. (2) substituted by GN 1648 of 19 August 1977]

**5** .....

[Reg. 5 deleted by GN R774 of 23 April 1982]

**6** A commissioner of oaths shall not charge any fee for administering any oath or affirmation or attesting any declaration.

**7** (1) A commissioner of oaths shall not administer an oath or affirmation relating to matter in which he has interest.

(2) Subregulation (1) shall not apply to an affidavit or a declaration mentioned in the Schedule.

**8** Government Notice R1206, dated 15 December 1961, is hereby withdrawn.

## **THE BROAD-BASED BLACK ECONOMIC EMPOWERMENT**

### **PRACTICE GUIDE 01 of 2018**

#### **DETERMINING THE VALIDITY OF A BROAD-BASED BLACK ECONOMIC EMPOWERMENT**

#### **VERIFICATION CERTIFICATE, B-BBEE CERTIFICATE AND SWORN AFFIDAVIT**

##### **A. Introduction**

1. The Broad Based Black Economic Empowerment Commission (“B-BBEE Commission”) is an entity established by the Broad-Based Black Economic Empowerment Act 53 of 2003 as amended by Act 46 of 2013 (“the Act”), to oversee the implementation of the Act, which includes provision of explanatory notices, non-binding advisory opinions and clarification services to improve the understanding of the Act.
2. This Practice Guide is issued as a non-binding guide purely to assist with the interpretation to ensure consistency in the application of the Act. Should this Practice Guide not be clearly applicable to your specific set of facts at any given time, you are advised to approach the B-BBEE Commission for a non-binding advisory opinion, which will be more specific to your set of facts.
3. This Practice Guide does not constitute a legal document or a ruling of the B-BBEE Commission on the issue concerned. Further, although this Practice Guide is not binding on the B-BBEE Commission, it does set out the approach that the B-BBEE Commission is likely to take on any matter relating to implementation of B-BBEE including determining the validity of B-BBEE certificates.
4. Section 9 (1) of the Act empowers Minister of Trade and Industry to issue Codes of Good Practice (“the Codes”) on broad-based black economic empowerment (“B-BBEE”) to promote the purposes of the Act. The Codes as amended are underpinned by the need to drive inclusive economy, and must at all times be interpreted and applied in a manner that is consistent with the objectives and purposes of the Act, and in compliance with the Constitution.



5. B-BBEE is an integrated coherent framework that seeks to advance the economic transformation of South Africa and bring about significant increase in the number of black people that manage, own and control the country's economy. The form in which economic transformation is realised is guided by the B-BBEE Act with the Codes guiding the implementation to achieve the outcome, not to aid measured entities to circumvent the B-BBEE Act.

## **B. Purpose of this practice guide**

6. The B-BBEE Commission has issued a number of letters requiring entities to withdraw their B-BBEE Verification Certificates or sworn affidavits due to invalidity or incomplete information provided or fraudulent conduct by either the measured entities or issuing officers/verifiers. Thus, the purpose of this practice guide is to set out the approach the B-BBEE Commission is likely to take on matters relating to determining the validity of B-BBEE certificates for consistency
7. The five elements of B-BBEE adopted in the Codes each have a specific purpose and together provide an integrated intervention to empower black people as envisaged in the B-BBEE Act. Further, the B-BBEE Act allows for B-BBEE verification, which is a measure used to determine compliance with the B-BBEE Act, and results in the issuing of a B-BBEE Certificate.
8. A B-BBEE Verification Certificate, a sworn affidavit and a B-BBEE Certificate issued by the Companies and Intellectual Property Commission (CIPC) is evidence of a measured entity's compliance with the B-BBEE Act over a particular period. Such compliance is based on B-BBEE related information of a measured entity in line with the applicable Codes as per Section 9 (1) of the B-BBEE Act.
9. It is illegal for a measured entity to trade with an invalid/inconclusive or incorrect B-BBEE Verification Certificate. The procurement spend as a result of such an invalid document cannot be recognised during B-BBEE measurement, therefore, it is critical to determine the validity of B-BBEE certificates measured entities present in order to access an economic opportunity.

## **C. Determining validity of a sworn affidavit for B-BBEE compliance**

10. The legal dictionary (<https://legal-dictionary.thefreedictionary.com/Affadavit>) defines a sworn affidavit as a written statement of facts voluntarily made by a person under an oath or affirmation administered by a person authorized to do so by law.
11. In terms of the Codes, Exempted Micro-Enterprises (EMEs) and black controlled and owned Qualifying Small Enterprises (QSEs) only have to use a sworn affidavit to indicate their B-BBEE compliance status. Government introduced this mechanism specifically to reduce the cost of doing business and regulatory burden for these entities.
12. The Department of Trade and Industry (**the dti**) has designed affidavit templates and qualifying measured entities must use these templates, which can be accessed on **the dti** website through the following URL [http://www.thedti.gov.za/economic\\_empowerment/bee\\_codes.jsp](http://www.thedti.gov.za/economic_empowerment/bee_codes.jsp). It is acceptable to use the templates on the letterhead of the measured entity.

13. The only time an EME can be verified by a South African National Accreditation System (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 using the QSE Scorecard.
14. The exception to this is only in the Transport Sector where EMEs have a choice of obtaining accounting officer letter or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency because the Transport Sector Code has not been aligned to the amended generic Codes. Also, start-ups that are EMEs but wish to tender for contracts of R10 million in value or above must be verified using the QSE scorecard, and for tenders of R50 million and above must be verified using the generic scorecard.
15. Further, the Construction Sector Code, provides for EMEs whose annual turnover is R1.8 million for Built Environment Professionals and R3 million for contractors or less to obtain automatic recognition levels and these do not require to undergo verification except in instances where they elect to enhance their B-BBEE status levels. In those circumstances there is a requirement for these EMEs to contribute towards empowerment by complying with the 40% sub-minimum on skills development element and in ensuring compliance with the skills development element, these EMEs are required to be verified by a SANAS accredited verification professional or agency.
16. Furthermore, the Financial Services Sector Code, has granted an option to 51% and 100% black owned QSEs to undergo a verification process from a SANAS accredited verification professional or agency instead of a sworn affidavit. However, for consistent application, EMEs in the Financial Services Sector should only obtain a sworn affidavit, and not a B-BBEE Verification Certificate as there is nothing to verify.
17. The following pointers are key in determining the validity of a sworn affidavit:
  - a) Name/s of deponent as they appear in the identity document and the identity number.
  - b) Designation of the deponent as either the director, owner or member must be indicated in order to know that person is duly authorised to depose of an affidavit
  - c) Name of enterprise as per enterprise registration documents issued by the CIPC, where applicable, and enterprise business address.
  - d) Percentage of black ownership, black female ownership and designated group. In the case of specialised enterprises as per Statement 004, the percentage of black beneficiaries must be reflected.
  - e) Indicate total revenue for the year under review and whether it is based on audited financial statements or management account.
  - f) Financial year end as per the enterprise's registration documents, which was used to determine the total revenue.
  - g) B-BBEE Status level. An enterprise can only have one status level.
  - h) Empowering supplier status must be indicated. For QSEs, the deponent must select the basis for the empowering supplier status.
  - i) Date deponent signed and date of Commissioner of Oath must be the same.
  - j) Commissioner of Oath cannot be an employee or ex officio of the enterprise because, a person cannot by law, commission a sworn affidavit in which they have an interest.

#### **D. B-BBEE Certificate issued by the Companies and Intellectual Property Commission**

18. **the dti** through government Gazette Number 38765 published on 6 May 2015, mandated CIPC to issue B-BBEE certificates for EMEs and start-up enterprises, in its efforts to reduce cost of business for small businesses. A certificate issued by CIPC has the same status as a sworn affidavit.
19. Subsequently, CIPC issued a Customer Notice indicating that B-BBEE certificates can be applied for via e-services on the CIPC website ([www.cipc.co.za](http://www.cipc.co.za)), at CIPC Self Services Terminals when registering or filing Annual Returns.
20. The following conditions apply when an enterprise uses the CIPC services for obtaining a B-BBEE certificate:
  - a) Only directors of a company or members of close corporations can apply for a B-BBEE certificate;
  - b) Only companies and close corporations with a turnover of less than R10 million can apply via CIPC;
  - c) The enterprise's status must be "In Business";
  - d) All Annual Return filings for the relevant company or close corporation need to be up to date;
  - e) Application for a B-BBEE certificate can be done at any time (not only when registering a company or filing returns), provided that an application for the certificate which is still valid, was not done already.
  - f) Applicant must agree to the B-BBEE terms and conditions; and
  - g) A director or member amendment must be filed if the director or member's email address or telephone is not correct or up to date.
21. A CIPC certificate can be submitted to the B-BBEE Commission for attention of Mr. Madidimalo Ramare at [MRamare@beecommission.gov.za](mailto:MRamare@beecommission.gov.za) to confirm if it was generated from the CIPC system. However, on face value, the following information must appear on the certificate:
  - a) Name of enterprise, registration number and business address.
  - b) Date of issue and expiry adding to twelve months (e.g 9 June 2018 to 8 June 2019) must be indicated.
  - c) Percentage of total black ownership, black female ownership and total white ownership.
  - d) Certificate number.
  - e) Barcode with tracking number.
  - f) Barcode with enterprise number.
  - g) B-BBEE Status and procurement recognition level.
  - h) **the dti** logo on the top left corner, and CIPC logo on the top right corner.
  - i) CIPC watermark.

#### **E. Determining validity of a B-BBEE Verification Certificate for B-BBEE compliance**

22. An entity that qualifies in terms of the B-BBEE Act to undergo a B-BBEE verification process, can only do so with a verification professional or agency that has been accredited by SANAS or a B-BBEE Verification Professional Regular that may be appointed by the Minister of Trade and Industry.

23. Verification means the process and activities conducted by a verification professional or agency to assess, verify and validate that the score awarded to a measured entity is a result of individual scorecard elements supplied by a measured entity, and to evaluate B-BBEE transactions in order to provide an indicative B-BBEE score and certification based on the principles of B-BBEE as per the Codes.
24. A B-BBEE verification process is important in assuring parties that rely on the score achieved by the measured entity and reflected on their B-BBEE Verification Certificate (refers to the B-BBEE Verification Certificate issued by the verification professional or agency which reflects the overall B-BBEE Status of a measured entity and scoring allocated for each scorecard element verified in respect of the measured entity) that the information on which the certificate was issued is acceptable, and has been independently verified, and is free from misstatements.
25. Therefore, the role of a verifier is to assess, verify and validate both disclosed and undisclosed B-BBEE related information of the measured entity. The verification thereof should be based on the principles contained in the B-BBEE Act and relevant Codes, by applying the verification methodologies outlined in the Framework for accreditation and verification by all verification agencies (also known as the verification manual) as well as the Accreditation of B-BBEE Verification Agencies document issued by SANAS (also referred to as the R47-02). Important to note that a verifier, is not to provide clarity or opinion on interpretation of any B-BBEE matter, such clarity must be sought from the B-BBEE Commission using the contact details mentioned below.
26. A B-BBEE Verification Certificate shall identify the following information:
- a) Name of enterprise as per enterprise registration documents issued by CIPC, and enterprise business address.
  - b) Value-Add Tax number, where applicable.
  - c) The B-BBEE Scorecard against which the certificate is issued, indicating all elements and scores achieved for each element. The actual score achieved must be linked to the total points as per the relevant Codes.
  - d) B-BBEE status with corresponding procurement recognition level.
  - e) The relevant Codes used to issue the B-BBEE Verification Certificate.
  - f) Date of issue and expiry (e.g. 9 June 2018 to 8 June 2019). Where a measured entity was subjected to a re-verification process, due to material change, the B-BBEE Verification Certificate must reflect the initial date of issue, date of re-issue and the initial date of expiry. Re-verification does not extend the lifespan of the B-BBEE Verification Certificate.
  - g) Financial period which was used to issue the B-BBEE Verification Certificate.

- h) Unique identification number of the B-BBEE verification professional or agency (e.g. BVA...).
- i) Name and logo/mark of the B-BBEE verification professional or agency.
- j) A B-BBEE Verification Certificate must be signed by the technical signatory at the bottom with full name and surname. The details of the technical signatory can be checked from the SANAS website [www.sanas.co.za](http://www.sanas.co.za). No other person is allowed to sign the B-BBEE Verification Certificate apart from the technical signatory.
- k) The SANAS logo on the B-BBEE Verification Certificate.

27. The recipient or user of a B-BBEE Verification Certificate can contact any of the accredited verification professionals or agency that is said to have issued the B-BBEE Verification Certificate, to request confirmation on the issuance of B-BBEE Verification Certificate. The recipient or user is also advised to use the SANAS website to verify the accreditation status, accreditation period and scope of accreditation for the verification professional or agency. The SANAS website also has a list of all verification professionals or agencies whose accreditation status has been withdrawn, or suspended, because a verification professional or agency cannot issue a B-BBEE Verification Certificate if the accreditation status has expired, withdrawn or suspended.
28. The recipient or user of the B-BBEE Verification Certificate, sworn affidavit or B-BBEE Certificate issued by CIPC is also allowed as part of its due diligence processes, to request any relevant additional information or documents from the measured entity in order to validate the credibility of the information recorded on the B-BBEE Verification Certificate, sworn affidavit or CIPC B-BBEE Certificate.

#### **F. Penalties as per the B-BBEE Act**

29. Trading with an invalid or fraudulent B-BBEE Verification Certificate may constitute an offence in terms of Section 13O (1) (a) of the B-BBEE Act, which states that a person commits an offence if that person knowingly misrepresents or attempts to misrepresent the broad-based black economic empowerment status of an enterprise, and the B-BBEE Commission may institute an investigation in terms of Section 13J of the B-BBEE Act. In addition, Section 13A of the B-BBEE Act has empowered organs of state and public entities to cancel any contract or authorisation awarded on account of false information knowingly furnished by or on behalf of an enterprise in respect of its broad-based black economic empowerment status.
30. If an entity is found to have violated the B-BBEE Act, an entity could be fined up to 10% of its annual turnover, and individuals involved could be imprisoned for up to 10 years, and / or fined. Specifically, an

offence under section 13O (2) could lead to imprisonment of up to 12 months, or a fine, or both the fine and imprisonment.

31. In terms of section 13O (2) a verification professional, procurement officer or any official of an organ of state or public entity who becomes aware of the commission of, or attempt to commit, any offence referred to under section 13O (1) and fails to report it, is guilty of an offence.
32. This Practice Guide is issued as a guide purely to assist with the interpretation and testing the validity of a B-BBEE sworn affidavit/CIPC B-BBEE certificate as well as a B-BBEE Verification Certificate issued by an accredited verification professional or agency, and does not constitute a legal document or ruling of the B-BBEE Commission.
33. This Practice Guide may be updated anytime by the B-BBEE Commission if there are any material changes arising from developments in the application of the B-BBEE Act. In such an instance, an amended version will be published to replace this one.
34. For any queries or further clarity on this Practice Guide, kindly feel free to contact us at the following contact details:

B-BBEE Commission  
Private Bag X31  
Pretoria  
0001  
Telephone: +27 12 649 0910  
Email: [info@beecommission.gov.za](mailto:info@beecommission.gov.za)

Issued by the B-BBEE Commission

3 September 2018

## ***The Contract***

## ***Part C1: Agreements and Contract Data***



## ***C1.1 Form of Offer and Acceptance***

## C1.1: Form of Offer & Acceptance

### Offer

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

#### REFURBISHMENT OF 45 BAY TERRACE BUILDING

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	<b>R</b>
Value Added Tax @ 15% is	<b>R</b>
The offered total of the Prices inclusive of VAT is	<b>R</b>
(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

Tenderer's CIDB registration number:

## 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		
5		

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	<hr/>	<hr/>
Name	<hr/>	<hr/>
Capacity	<hr/>	<hr/>
On behalf of	<i>(Insert name and address of organisation)</i>	Transnet SOC Ltd
Name & signature of witness	<hr/>	<hr/>
Date	<hr/>	<hr/>

## ***C1.2 Contract Data (Parts 1 & 2)***

## C1.2 Contract Data

### Part one - Data provided by the *Employer*

Clause	Statement	Data
1	<b>General</b>	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		<b>B: Priced contract with bill of quantities</b>
	dispute resolution Option	<b>W1: Dispute resolution procedure</b>
	and secondary Options	
		<b>X2 Changes in the law</b>
		<b>X7: Delay damages</b>
		<b>X13: Performance Bond</b>
		<b>X16: Retention</b>
		<b>X18: Limitation of liability</b>
		<b>Z: <i>Additional conditions of contract</i></b>

of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)

10.1	The <i>Employer</i> is:	<b>Transnet SOC Ltd</b> <b>(Registration No. 1990/000900/30)</b>
	Address	Registered address: <b>Transnet Corporate Centre</b> <b>138 Eloff Street</b> <b>Braamfontein</b> <b>Johannesburg</b> <b>2000</b>
	Having elected its Contractual Address for the purposes of this contract as:	<b>Transnet National Ports Authority</b> <b>Transnet SOC Ltd</b> <b>Queens Warehouse</b> <b>237 Mahatma Gandhi Road</b> <b>1ST Floor</b> <b>Durban</b> <b>4000</b>
10.1	The <i>Project Manager</i> is: (Name)	<b>Sindi Mabele</b>
	Address	<b>Queens Warehouse</b> <b>237 Mahatma Gandhi Road</b> <b>1ST Floor</b> <b>Durban</b>
	Tel	<b>031 361 8012</b>
	e-mail	<b>Sindi.Mabele@transnet.net</b>
10.1	The <i>Supervisor</i> is: (Name)	<b>Bongekile Shandu</b>
	Address	<b>Queens Warehouse</b> <b>237 Mahatma Gandhi Road</b> <b>1ST Floor</b> <b>Durban</b>
	Tel No.	<b>031 361 8176</b>
	e-mail	<b>Bongekile.Shandu@transnet.net</b>
11.2(13)	The <i>works</i> are	<b>Refurbishment Of 45 Bay Terrace Building</b>
11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> <li>• <b>Working in an operational area</b></li> <li>• <b>Traffic Congestion</b></li> <li>• <b>Construction forum</b></li> </ul>
11.2(15)	The <i>boundaries of the site</i> are	<b>As stated in Part C4.1. "Description of the Site and it surroundings"</b>
11.2(16)	The Site Information is in	<b>Part C4</b>



11.2(19)	The Works Information is in	<b>Part C3</b>	
12.2	The <i>law of the contract</i> is the law of	<b>the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.</b>	
13.1	The <i>language of this contract</i> is	<b>English</b>	
13.3	The <i>period for reply</i> is	<b>2 weeks</b>	
<b>2</b>	<b>The <i>Contractor's</i> main responsibilities</b>	<b>No additional data is required for this section of the <i>conditions of contract</i>.</b>	
<b>3</b>	<b>Time</b>		
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	<b>29 November 2024</b>	
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<b><i>Condition to be met</i></b>	<b><i>key date</i></b>
		<b>1 Access date</b>	<b>5 February 2024</b>
		<b>2 Site establishment</b>	<b>12 February 2024</b>
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	<b>2 weeks of the Contract Date.</b>	
31.2	The <i>starting date</i> is	<b>19 January 2024</b>	
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	<b>2 weeks.</b>	
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.		
<b>4</b>	<b>Testing and Defects</b>		
42.2	The <i>defects date</i> is	<b>52 (fifty two) weeks after Completion of the whole of the <i>works</i>.</b>	
43.2	The <i>defect correction period</i> is	<b>2 weeks</b>	
<b>5</b>	<b>Payment</b>		
50.1	The <i>assessment interval</i> is monthly on the	<b>20<sup>th</sup> (twenty fifth) day of each successive month.</b>	
51.1	The <i>currency of this contract</i> is the	<b>South African Rand.</b>	

51.2	The period within which payments are made is	<b>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.</b>
51.4	The <i>interest rate</i> is	<b>the prime lending rate of Rand Merchant of South Africa.</b>
<b>6</b>	<b>Compensation events</b>	
60.1(13)	The <i>weather measurements</i> to be recorded for each calendar month are,	<b>the cumulative rainfall (mm)</b>  <b>the number of days with rainfall more than 10 mm</b>  <b>the number of days with minimum air temperature less than 0 degrees Celsius</b>  <b>the number of days with snow lying at 08:00 hours South African Time.</b>
	The place where weather is to be recorded (on the Site ) is:	<b>The <i>Contractor's</i> Site establishment area</b>
	The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:	<b>Durban Weather Station</b>
	and which are available from:	<b>South African Weather Service 012 367 6023 or <a href="mailto:info3@weathersa.co.za">info3@weathersa.co.za</a>.</b>
<b>7</b>	<b>Title</b>	<b>No additional data is required for this section of the <i>conditions of contract</i>.</b>
<b>8</b>	<b>Risks and insurance</b>	
80.1	These are additional <i>Employer's</i> risks	<b>None</b>
84.1	The <i>Employer</i> provides these insurances from the Insurance Table	
	1 Insurance against:	<b>Loss of or damage to the <i>works</i>, Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.</b>

Cover / indemnity:	<b>to the extent as stated in the insurance policy for Contract Works / Public Liability</b>
The deductibles are:	<b>as stated in the insurance policy for Contract Works / Public Liability</b>
2 Insurance against:	<b>Loss of or damage to property (except the <i>works</i>, Plant and Materials &amp; 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</b>
Cover / indemnity	<b>Is to the extent as stated in the insurance policy for Contract Works / Public Liability</b>
The deductibles are	<b>as stated in the insurance policy for Contract Works / Public Liability</b>
3 Insurance against:	<b>Loss of or damage to Equipment (Temporary Works only) as stated in the insurance policy for contract Works and Public Liability</b>
Cover / indemnity	<b>Is to the extent as stated in the insurance policy for Contract Works / Public Liability</b>
The deductibles are:	<b>As stated in the insurance policy for Contract Works / Public Liability</b>
4 Insurance against:	<b>Contract Works SASRIA insurance subject to the terms, exceptions and conditions of the SASRIA coupon</b>
Cover / indemnity	<b>Cover / indemnity is to the extent provided by the SASRIA coupon</b>
The deductibles are	<b>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.</b>
Note:	<b>The deductibles for the insurance as stated above are listed in the document titled "Certificate of Insurance: Transnet (SOC) Limited Principal Controlled Insurance."</b>

- 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 R 5 000 000.**

**5 The insurance coverage referred to in 1, 2, 3, 4 and 5 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 <i>Contractor</i> ) caused by activity in connection with this contract for any one event is	<b>Whatever the <i>Contractor</i> requires in addition to the amount of insurance taken out by the <i>Employer</i> for the same risk.</b>
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:	<b>Principal Controlled Insurance policy for Contract</b>
<b>9</b>	<b>Termination</b>	<b>There is no additional Contract Data required for this section of the <i>conditions of contract</i>.</b>
<b>10</b>	<b>Data for main Option clause</b>	
<b>B</b>	<b>Priced contract with Bill of Quantities</b>	<b>No additional data is required for this Option.</b>
60.6	The <i>method of measurement</i> is	<b>Standard system of measuring building work and SANS1200.</b>

<b>11</b>	<b>Data for Option W1</b>	
W1.1	The <i>Adjudicator</i> is	<b>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>.</b>
W1.2(3)	The <i>Adjudicator nominating body</i> is:  If no <i>Adjudicator nominating body</i> is entered, it is:	<b>The Chairman of the Association of Arbitrators (Southern Africa)</b>  <b>the Association of Arbitrators (Southern Africa)</b>
W1.4(2)	The <i>tribunal</i> is:	<b>Arbitration</b>
W1.4(5)	The <i>arbitration procedure</i> is	<b>The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)</b>
	The place where arbitration is to be held is	<b>Durban, Kwa-Zulu Natal, South Africa</b>
	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	<b>The Chairman of the Association of Arbitrators (Southern Africa)</b>
<b>12</b>	<b>Data for secondary Option clauses</b>	
<b>X2</b>	<b>Changes in the law</b>	<b>No additional data is required for this Option</b>
<b>X7</b>	<b>Delay damages (but not if Option X5 is also used)</b>	
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	<b>R5 000.00 per day</b>
<b>X13</b>	<b>Performance bond</b>	
X13.1	The amount of the performance bond is	<b>10% of the total of the Prices including VAT.</b>

<b>X16</b>	<b>Retention</b>	
X16.1	The retention free amount is	<b>Nil</b>
	The retention percentage is	<b>5% of the Total Contract price</b>
<b>X18</b>	<b>Limitation of liability</b>	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	<b>Nil</b> <b>The deductible of the relevant insurance policy</b>
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:	<b>The cost of correcting the Defect</b>
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:	<b>The Total of the Prices</b>
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:	<b>5 years after Completion of the whole of the works</b>
X18.5	The <i>end of liability date</i> is	<b>Not applicable</b>
<b>Z</b>	<b><i>Additional conditions of contract are:</i></b>	
<b>Z1</b>	<b>Additional clause relating to Performance Bonds and/or Guarantees</b>	
<b>Z1.1</b>	<b>The Performance Guarantee under X13 above shall be an irrevocable, on-demand performance guarantee, to be issued exactly in the form of the Pro Forma documents provided for this purpose under C1.3 (Forms of Securities), in favour of the <i>Employer</i> by a financial institution reasonably acceptable to the <i>Employer</i>.</b>	

## **Z2 Additional clauses relating to Joint Venture**

### **Z2.1**

#### **Insert the additional core clause 27.5**

**27.5. In the instance that the *Contractor* is a joint venture, the *Contractor* shall provide the *Employer* 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.**



		<ul style="list-style-type: none"> <li>• <b>Financial requirements for the Joint Venture:</b> <ul style="list-style-type: none"> <li>iv. the working capital requirements for the Joint Venture and the extent to which and manner whereby this will be provided and/or guaranteed by the constituents from time to time;</li> <li>v. the names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture.</li> </ul> </li> </ul>
<b>Z2.2</b>		<p><b>Insert additional core clause 27.6</b></p> <p><b>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>.</b></p>
<b>Z3</b>	<b>Additional obligations in respect of Termination</b>	
<b>Z3.1</b>		<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"> <li>• commenced business rescue proceedings (R22)</li> <li>• repudiated this Contract (R23)</li> </ul>
<b>Z3.2</b>	<b>Termination Table</b>	<p>The following will be included under core clause 90.2 Termination Table as follows:</p> <p><b>Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"</b></p>
<b>Z3.3</b>		<p><b>Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."</b></p>

**Z4 Right Reserved by the  
Employer to Conduct Vetting  
through SSA**

**Z4.1**

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.

**Z5 Additional Clause Relating to  
Collusion in the Construction  
Industry**

**Z5.1**

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.

**Z6 Protection of Personal  
Information Act**

**Z6.1**

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.

<b>Z7</b>	<b>Transfer of rights</b>	<p>The <i>Employer</i> owns the <i>Contractor's</i> rights over material, including but not limited to design and documentation, prepared for this contract by the <i>Contractor</i> except as stated otherwise in the Works Information. The <i>Contractor</i> obtains other rights for the <i>Employer</i> as stated in the Works Information and obtains from a <i>SubContractor</i> or third party equivalent rights for the <i>Employer</i> of the material prepared by the <i>SubContractor</i>. The <i>Contractor</i> provides to the <i>Employer</i> the documents which transfer these rights to the <i>Employer</i> at no costs to the <i>Employer</i>.</p>
<b>Z8.1</b>	<b>The first <i>assessment interval</i></b>	<p>In the event that the <i>Contractor</i> is not loaded on the vendor data base, the <i>Project Manager's</i> first assessment of the amount due will be done once the <i>Contractor</i> has been successfully loaded as a vendor on the <i>Employers</i> data base following submitting all valid updated documents to the Procurement officer. Therefore, on NEC ECC Clause 50.1 the following text is removed in its entirety "and is no later than the <i>assessment interval</i> after the <i>starting date</i>"</p>

<b>Z9</b>	<b>Obligations in respect of Subcontracting</b>
<b>Z9.1</b>	<p>The <i>Contractor's</i> Subcontracting percentage as detailed in the tender submission Returnable T2.2-30 will constitute a binding agreement throughout the duration of the contract until Completion, if not, it will be deemed that the <i>Contractor</i> has failed in full to meet the material term of the contract, which may constitute a reason for termination.</p>
<b>Z9.2</b>	<p>The <i>Contractor</i> shall report to the <i>Employer</i> on a monthly basis during the term of the Contract, the amounts spent on each sub-contractor.</p>
<b>Z9.3</b>	<p>Insert addition to Clause 26.2. The <i>Contractor</i> may not replace any sub-contractor without acceptance of the <i>Project Manager</i>. The <i>Project Manager</i> shall before acceptance of a replacement by the <i>Contractor</i> of any sub-contractor as detailed in the tender submission Returnable T2.2-30, obtain representations or input from the initial sub-contractor to make an informed decision as to the proposed replacement. The sub-contracting arrangement/contract remains between the <i>Contractor</i> and sub-contractor.</p>

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**Z9.4**

The *Contractor* shall provide to the *Employer*, upon receiving an instruction to do so, any documentation and/or evidence required by the *Employer*, which in the *Employer's* opinion would be necessary to verify whether the *Contractor* has maintained the subcontracting percentage. The *Contractor* shall provide the said documentation and/or evidence within the period stated in the instruction. The provision of the documentation and/or evidence shall not constitute a compensation event.

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**Z9.5**

The *Contractor's* Subcontracting percentage as detailed in the tender submission Returnable T2.2-34 will constitute a binding agreement throughout the duration of the contract until Completion, if not, it will be deemed that the *Contractor* has failed in full to meet the material term of the contract, which may constitute a reason for termination.

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**Z10**      **Obligations in respect of Job**

**Z10.1**      **Creation**

It will be a material term of this contract that the *Contractor* must contribute to the *Employer's* job-creation objectives as set out in Returnable Schedule T2.2-29.

**Z10.2**

The *Contractor's* undertaking as to the number of new jobs created due to the award of this contract as set out in Returnable Schedule T.2.2-29 will constitute a binding agreement throughout the duration of the contract until Completion, if not, it will be deemed that the *Contractor* has failed in full to meet this specific material term of the contract, which may constitute a reason for termination..

**Z10.3**

The *Contractor* shall provide to the *Employer*, on a monthly basis or upon receiving an instruction to do so by the *Project Manager*, any documentation and/or evidence required by the *Employer*, which in the *Employer's* opinion would be necessary to verify whether the *Contractor* has maintained the job-creation undertaking as stipulated in Returnable Schedule T.2.2-29 The *Contractor* shall provide the said documentation and/or evidence within the period stated or as instructed. The provision of the documentation and/or evidence shall not constitute a compensation event.

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## 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:	

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Contract Data provided by the *Employer*



63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:		

### ***C1.3 Form of Guarantee***

## C1.3 Forms of Securities

### Pro forma Performance Guarantee

For use with the NEC3 Engineering & Construction Contract - June 2005 (with amendments June 2006 and April 2013)

The *conditions of contract* stated in the Contract Data Part 1 include the following Secondary Option:

Option X13: Performance bond

The pro forma document for this Guarantee is provided here for convenience but is to be treated as part of the *Works Information*.

The organisation providing the Guarantee does so by copying the pro forma document onto its letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

The Performance Bond needs to be issued by an institution that are reasonably acceptable to the *Employer*.

Transnet may choose to not to accept an Issuer. Should the issuer not being accepted, the performance bond needs to be replaced by an issuer that are acceptable to Transnet. Issuers need to be verified for acceptance by Transnet before a performance bond is issued.

## Pro-forma Performance Bond (for use with Option X13)

(to be reproduced exactly as shown below on the letterhead of the Surety)

Transnet SOC Ltd  
C/o Transnet National Ports Authority  
Transnet Corporate Centre  
138 Eloff Street  
Braamfontein  
Johannesburg  
2000

Date:

Dear Sirs,

### Performance Bond for Contract No. TNPA/2023/08/0007/37982/RFP

With reference to the above numbered contract made or to be made between

**Transnet SOC Limited, Registration No. 1990/000900/30** (the *Employer*) and

**{Insert registered name and address of the *Contractor*}** (the *Contractor*), for

**{Insert details of the *works* from the Contract Data}** (the *works*).

I/We the undersigned

on behalf of the  
Guarantor

of physical address

and duly authorised thereto do hereby bind ourselves as Guarantor and co-principal debtors in solidum for the due and faithful performance of all the terms and conditions of the Contract by the *Contractor* and for all losses, damages and expenses that may be suffered or incurred by the *Employer* as a result of non-performance of the Contract by the *Contractor*, subject to the following conditions:

1. The terms *Employer*, *Contractor*, *Project Manager*, *works* and Completion Certificate have the meaning as assigned to them by the *conditions of contract* stated in the Contract Data for the aforesaid Contract.
2. We renounce all benefits from the legal exceptions "Benefit of Excussion and Division", "No value received" and all other exceptions which might or could be pleaded against the validity of this bond, with the meaning and effect of which exceptions we declare ourselves to be fully acquainted.
3. The *Employer* has the absolute right to arrange his affairs with the *Contractor* in any manner which the *Employer* deems fit and without being advised thereof the Guarantor

shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Guarantor. Without derogating from the foregoing compromise, extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this performance bond.

4. This bond will lapse on the earlier of

- the date that the Guarantor receives a notice from the *Project Manager* stating that the Completion Certificate for the whole of the *works* has been issued, that all amounts due from the *Contractor* as certified in terms of the contract have been received by the *Employer* and that the *Contractor* has fulfilled all his obligations under the Contract, or
- the date that the Surety issues a replacement Performance Bond for such lesser or higher amount as may be required by the *Project Manager*.

5. Always provided that this bond will not lapse in the event the Guarantor is notified by the *Project Manager*, (before the dates above), of the *Employer's* intention to institute claims and the particulars thereof, in which event this bond shall remain in force until all such claims are paid and settled.

6. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Guarantor of a certificate signed by the *Project Manager* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.

7. Our total liability hereunder shall not exceed the sum of:

(say)

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R \_\_\_\_\_

8. This Performance Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa

Signed \_\_\_\_\_ on \_\_\_\_\_ day of \_\_\_\_\_ 201\_  
at \_\_\_\_\_ this \_\_\_\_\_

Signature(s)	
Name(s) (printed)	
Position in Guarantor company	
Signature of Witness(s)	
Name(s) (printed)	

## ***Part C2: Pricing Data***

## PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions: Option B	3
C2.2	The <i>bill of quantities</i>	



## ***C2.1 Pricing Instructions***

## C2.1 Pricing instructions: Option B

### 1. The *conditions of contract*

#### 1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract, April 2013 (ECC) Option B states:

<b>Identified and defined terms</b>	11	
	11.2	(21) The Bill of Quantities is the <i>bill of quantities</i> 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 subcontracted or not excluding the cost of preparing quotations for compensation events
		(28) The Price for Work Done to Date is the total of <ul style="list-style-type: none"> <li>the quantity of the work which the <i>Contractor</i> has completed for each item in the Bill of Quantities multiplied by the rate and</li> <li>a proportion of each lump sum which is the proportion of the work covered by the item which the <i>Contractor</i> has completed except the Preliminary and General Items.</li> </ul> <p>Completed work is work without Defects that either would delay or be covered by immediately following work.</p> <p>(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.</p>

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 Works 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 Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works 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 (April 2013) 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 bills of quantities. 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 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

### 2.2 Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m <sup>2</sup>	square metre
m <sup>2</sup> -pass	square metre pass
m <sup>3</sup>	cubic metre
m <sup>3</sup> -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal
No.	number

Prov sum	provisional sum
PC-sum	prime cost sum
R/only	Rate only
sum	Lump sum
t	ton (1000kg)
W/day	Work day

## 2.2 General assumptions

- 2.2.1 The Preliminary and General Items (Section 1) shall be priced in accordance with the 'Scope of Work' and other contractual obligations required to complete the work. Fixed preliminary items will be evaluated and paid on a proven cost basis and limited to the tendered amount. Time related preliminary items would be paid on the proportion of the following:
- Value of the price for work done to date per the *Project Managers* assessment (excluding activities directly relating to materials, escalation & compensation events) over the contract value excluding preliminaries cost.
- 2.2.2 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 2.2.3 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.
- 2.2.4 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.
- 2.2.5 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, and 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.
- 2.2.6 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.
- 2.2.7 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.
- 2.2.8 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 Works Information.
- 2.2.9 The price against each item shall be deemed to take cognizance of the preambles and supplementary preambles within the *bill of quantities*, works information and all other documentation attached to the tender document.
- 2.2.10 All fluctuations in foreign exchange rates will only be applied on a proven cost basis to the actual cost of the imported materials excluding any mark-ups, labour and profit, etc.

## ***C2.2 Bill of Quantities***

**SECTION NO. 1**  
**PRELIMINARIES**

**SECTION NO. 1****PRELIMINARIES****PREAMBLES****Fixed preliminary items**

**Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value**

**Time related preliminary items**

Time related preliminary items will be paid on the proportion of: Value of the price of work done to date per the Project Manager's assessment (excluding activities directly related to materials, escalation and compensation events) over the contract value excluding preliminaries costs

**FIXED PRELIMINARY ITEMS****Contractual requirements**

- 1 Contractual requirements, sureties, insurances, etc.

Item

**Establishment of facilities on site**

- 2 Offices for engineer, staff

Item

- 3 Notice boards, etc.

Item

**Facilities for the contractor**

- 4 Tools and Equipment

Item

- 5 Workshops

Item

- 6 Ablutions and latrine facilities

Item

- 7 Water Supplies, electric power and communications

Item

- 8 Offices and storage sheds

Item

- 9 Dealing with dust

Item

- 10 Equipment

Item

- 11 Access

Item

- 12 Removal of site establishment

Item

**Other Fixed-charge obligations**

- 13 Health and safety

Item

- 14 Environmental

Item

- 15 Dealing with traffic

Item

Carried To Section Summary

R

Section No. 1

Bill No. 1

Preliminaries

Amount

16 As-built surveys

Item

17 Security

Item

**TIME RELATED PRELIMINARY ITEMS**

**Time related preliminary obligations may relate to fixed preliminary items and items not listed**

18 Time related obligations

Item

Carried To Section Summary

R

Section No. 1

Bill No. 1

Preliminaries



Amount

**SECTION NO. 1**

**PRELIMINARIES**

**SECTION SUMMARY**

Page

Brought forward from page

2

Brought forward from page

3

Carried to Final Summary

**R**

Section No. 1  
SECTION SUMMARY

**SECTION NO. 2**

**BAY TERRACE REFURBISHMENT**

	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 2</u></b>  <b><u>BAY TERRACE REFURBISHMENT</u></b>  <b><u>BILL NO. 1</u></b>  <b><u>ALTERATIONS</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>View site</u></b></p> <p>Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials salvageable from the alterations. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained</p> <p><b><u>General</u></b></p> <p>The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. He shall provide proper protection and provide , erect and remove when directed , any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the project manager</p> <p>Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc.</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary. All existing work removed must be disposed off at an approved dump site.</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)</p> <p><b><u>TEMPORARY WORKS, ETC.</u></b></p> <p><b><u>Temporary removal of existing office furniture including all necessary dismantling, protection, transportation, storage and re-installation</u></b></p> <p>1 Removal of existing office furniture as per scope of work and transport to storage facility</p>				
	Item			
Carried to Collection			R	
Section No. 2				
Bill No. 1				
Alterations				

		Unit	Quantity	Rate	Amount
2	Storage of furniture as per scope of work including all necessary security, insurances, etc.	Days	217		
3	Transport of furniture from storage facility to site including re-installation	Item			
<b><u>REMOVAL OF EXISTING WORK</u></b>					
<b><u>Taking out and removing aluminum shopfronts, etc., including thresholds, sills, etc., making good paintwork elsewhere)</u></b>					
4	2600 x 1200mm Shopfront	No	1		
5	1500 x 1200mm Shopfront	No	1		
6	2400 x 1200mm Shopfront	No	1		
<b><u>Breaking up and removing roadworks</u></b>					
7	50-80mm thick premix	m <sup>2</sup>	5		
<b><u>Saw cutting existing surfaces, etc.</u></b>					
8	Saw cutting 50-80mm thick premix	m	21		
<b><u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc.</u></b>					
9	Drywall partitions 2.7m high, including doors, glazed borrowed lights, etc.	m	122		
10	Drywall partitions 2.7m high, fixed with timber panels, including doors, glazed borrowed lights, etc.	m	31		
11	Acoustic tile suspended ceilings, including suspension grid, hangers, cornices, etc.	m <sup>2</sup>	1,807		
12	1200 x 600mm Acoustic ceiling tiles only from from existing grids	m <sup>2</sup>	1,225		
<b><u>Taking out and removing sundry joinery work, fittings, etc.</u></b>					
13	L shaped timber wall cupboard, overall size 5600 x 300 x 600mm high	No	3		
14	L shaped timber floor cupboard with overall size 5600 x 600 x 900mm high including stopping, disconnecting water connections and waste pipe	No	3		
15	Timber sink cupboard 4062 x 600 x 900mm high, including sink and including stopping, disconnecting water connections and waste pipe	No	1		
Carried to Collection				R	
Section No. 2					
Bill No. 1					
Alterations					

		Unit	Quantity	Rate	Amount
16	Timber sink cupboard 2260 x 600 x 900mm high, including sink and including stopping, disconnecting water connections and waste pipe	No	1		
17	L-shaped timber sink cupboard 3166 x 2330 x 600 x 900mm high, including sink and including stopping, disconnecting water connections and waste pipe	No	3		
18	Timber counter 3500 x 500 x 350mm high	No	4		
19	L shaped timber counter with overall size 3600 x 3400 x 1200mm high including 1500mm high glazed aluminium panels fixed to counters and to underside of ceiling	No	1		
20	Timber counter with overall size 5600 x 1200mm high including 1500mm high glazed aluminium panels fixed to counters and to underside of ceiling	No	1		
21	Timber panels 2.7m high fixed to brick walls including preparing walls to receive new paint (new paint e.m)	m	29		
	<b><u>Hacking up/off and removing tiles including removing mortar bed or adhesive from concrete or brickwork and preparing surfaces for new screed, plaster, tile finish, etc.</u></b>				
22	Ceramic tiles to floors	m <sup>2</sup>	916		
23	Ceramic tiles to walls	m <sup>2</sup>	1,538		
24	Slate tiles to floors	m <sup>2</sup>	28		
	<b><u>Taking up and removing wood block floor coverings, vinyl floor coverings, carpets, etc and preparing screeds for new floor coverings</u></b>				
25	Carpet tile floor covering	m <sup>2</sup>	4,142		
26	Vinyl floor	m <sup>2</sup>	161		
27	Interlocking timber flooring including backing	m <sup>2</sup>	252		
	<b><u>Taking out and removing sanitary fittings, tanks, geysers, etc, including disconnecting from pipes, traps, etc and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u></b>				
28	Stainless steel sink and drainer	No	4		
29	150 Litre geyser from wall	No	3		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 1				
	Alterations				

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Amount

**BILL NO. 1**  
**ALTERATIONS**  
**COLLECTION**

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Section No. 2  
Bill No. 1  
Alterations

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>				
<b><u>BAY TERRACE REFURBISHMENT</u></b>				
<b><u>BILL NO. 2</u></b>				
<b><u>EARTHWORKS</u></b>				
<b><u>PREAMBLES</u></b>				
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill				
<b><u>EARTHWORKS (PROVISIONAL)</u></b>				
<b><u>Carting away of excavated material</u></b>				
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
<b><u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u></b>				
<b><u>Excavation in earth not exceeding 2m deep</u></b>				
1	Trenches	m <sup>3</sup>	6	
<b><u>Extra over all excavations for carting away</u></b>				
2	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m <sup>3</sup>	2	
<b><u>Risk of collapse of excavations</u></b>				
3	Sides of bulk excavations not exceeding 1,5m deep	m <sup>2</sup>	16	
<b><u>FILLING, ETC</u></b>				
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 90% Mod AASHTO density</u></b>				
4	Backfilling to trenches, holes, etc	m <sup>3</sup>	4	
<b><u>Compaction of ground surfaces</u></b>				
5	Compaction of natural or excavated ground surface under floors etc by wetting and compacting	m <sup>2</sup>	6	
Carried To Section Summary			R	
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Bill No. 2				
Earthworks				



	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>				
<b><u>BAY TERRACE REFURBISHMENT</u></b>				
<b><u>BILL NO. 3</u></b>				
<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>				
<b><u>PREAMBLES</u></b>				
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill				
<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
<b><u>25Mpa/19mm concrete</u></b>				
1	Strip footings	m <sup>3</sup>	3	
<b><u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u></b>				
<b><u>30MPa/19mm concrete</u></b>				
2	Surface beds	m <sup>3</sup>	3	
<b><u>CONCRETE SUNDRIES</u></b>				
<b><u>Finishing top surfaces of concrete smooth with a steel trowel</u></b>				
3	Surface beds, slabs, etc	m <sup>2</sup>	8	
<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u></b>				
<b><u>Smooth formwork to sides</u></b>				
4	Edges of surface slab not exceeding 300mm high	m	11	
<b><u>MOVEMENT JOINTS, ETC.</u></b>				
<b><u>Two layers of 250 micron dampproof course (One layer of 0,6mm UPVC Plastic) in slip joints between horizontal concrete and brick surfaces including cement mortar bed</u></b>				
5	Exceeding 300mm wide	m <sup>2</sup>	80	
<b><u>20mm Thich seal with sikaflex vertical isolation construction joints through concrete including thick cement slurry to one face</u></b>				
<b><u>REINFORCEMENT</u></b>				
<b><u>Fabric reinforcement</u></b>				
6	Ref. 8.88 fabric reinforcement in concrete surface beds etc.	m <sup>2</sup>	15	
Carried To Section Summary			R	
Section No. 2				
Bill No. 3				
Concrete, Formwork And Reinforcement				

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>				
<b><u>BAY TERRACE REFURBISHMENT</u></b>				
<b><u>BILL NO. 4</u></b>				
<b><u>MASONRY</u></b>				
<b><u>PREAMBLES</u></b>				
Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick				
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill				
<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
<b><u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u></b>				
<b><u>Brickwork of NFX bricks in class II mortar</u></b>				
1 One brick walls	m <sup>2</sup>	6		
<b><u>BRICKWORK IN SUPERSTRUCTURE</u></b>				
<b><u>Brickwork of NFP bricks in class II mortar</u></b>				
2 One brick walls	m <sup>2</sup>	26		
<b><u>2.5mm Brickwork reinforcement</u></b>				
3 150mm Wide reinforcement built in horizontally	m	102		
Carried To Section Summary			R	
Section No. 2				
Bill No. 4				
Masonry				

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b> <b><u>BAY TERRACE REFURBISHMENT</u></b> <b><u>BILL NO. 5</u></b> <b><u>CARPENTRY AND JOINERY</u></b>  <b><u>PREAMBLES</u></b> The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill  <b><u>DOORS ETC</u></b> <b><u>44mm Thick solid timber hardwood doors with rebated styles, hung to and including 108 x 108 hardwood with 12mm rebated frame, including 19mm hardwood quadrant both sides</u></b> 1 44mm Thick double Door 1730 x 2090mm high No 1  <b><u>FITTINGS: CUPBOARDS TO KITCHENS, ETC.</u></b> <b><u>Floating shelves inlcuding frame manufactured in accordance with the architect's drawing and plugged to wall</u></b> 2 Floating shelves, size 600 x 600 x 2020mm high No 3 3 Floating shelves, size 1200 x 600 x 2020mm high No 1  <b><u>Kitchen cupboards with 'Union' hinges , flat bar handles as per 'Gelmar' code 8234, telescopic drawer slides with 16mm gloss white board doors with backing and impact edging all round</u></b> 4 Floor cupboard overall size 600 x 600 x 1978mm high with top, sides, bottom, division, shelf, back and double hinged doors, necessary framework No 4  <b><u>Kitchen cupboards with 'Union' hinges , flat bar handles as per 'Gelmar' code 8234, telescopic drawer slides with 16mm gloss white board doors with backing and impact edging all round fitted with and including 20mm 'Caesor Stone' ' 5031 Statuario Maximus Quartz' with all exposed edges and surfaces polished</u></b> 5 L-Shaped sink cupboard inlcuding quartz, overall size 2636 X 1650 x 600 x 900mm high with top, sides, bottom, division, shelf, back and double hinged doors, necessary framework and drawers (sink elsewhere) No 3  <div> <div>Carried to Collection</div> <div>R</div> </div>				
Section No. 2 Bill No. 5 Carpentry And Joinery				

		Unit	Quantity	Rate	Amount
6	L-Shaped sink cupboard including quartz, overall size 4062 X 3500 x 600 x 900mm high with top, sides, bottom, division, shelf, back and double hinged doors, necessary framework and drawers (sink elsewhere)	No	1		
7	Floor cupboard including quartz, overall size 1500 x 600 x 900mm high with top, sides, bottom, division, shelf, back and double hinged doors, necessary framework and drawers	No	1		
Carried to Collection				R	
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Carpentry And Joinery					

Amount

**BILL NO. 5**

**CARPENTRY AND JOINERY**

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Bill No. 5

Carpentry And Joinery

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b> <b><u>BAY TERRACE REFURBISHMENT</u></b> <b><u>BILL NO. 6</u></b> <b><u>CEILINGS PARTITIONS AND ACCESS FLOORING</u></b>  <b><u>PREAMBLES</u></b> <p>The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill</p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <b><u>SUSPENDEED CEILINGS</u></b> <u>1200 x 600 x 6mm 'Pelican - Econocal' ceiling tiles</u> <u>laid in and including pre-painted exposed</u> <u>suspension grid system with shadowline cornice</u> <u>fixed at 400mm centres with main tees at 1200mm</u> <u>centres and cross tees at 600mm centres including</u> <u>hangers, necessary hold-down clips and wedges,</u> <u>etc.</u>				
1	Suspended ceiling tiles and grid not exceeding 1m fixed to concrete soffits at 1200mm centres	m <sup>2</sup>	1,807	
2	1200 x 600 x 6mm ceiling tiles only in existing grid	m <sup>2</sup>	1,225	
<b><u>DRYWALL PARTITIONS</u></b> <u>Drywall Partition System comprising aluminium</u> <u>ceiling channel, 52mm floor track and 51mm vertical</u> <u>studs at 600mm centres, friction fitted, or riveted to</u> <u>ceiling channel and floor tracks with similar</u> <u>additional vertical studs as necessary at corners</u> <u>ends etc. and covered both sides with 12.5mm</u> <u>Gypsum Tapered Edge Wallboard screwed to</u> <u>studding with 25mm drywall screws at maximum</u> <u>220mm centres. Boards are to be butt joined and</u> <u>tapered edges fitted with 50mm wide self-adhesive</u> <u>and finished with jointing compound. Intersections</u> <u>and abutments are measured separately and</u> <u>descriptions shall be deemed to include any</u> <u>additional studs, corner beads, jointing compound,</u> <u>tape, etc.</u>				
3	Partitions 2.72m high with bottom track plugged and top track fixed to suspended ceiling tees	m	15	
Carried to Collection			R	
Section No. 2 Bill No. 6 Ceilings Partitions And Access Flooring				

	Unit	Quantity	Rate	Amount
4	Partitions with overall height of 2.72m high including 600mm high glazed aluminium panels fixed to top of partition and underside of ceiling and with bottom track plugged to concrete floors	m	70	
5	Extra over partition 2.72m high for vertical abutment	No	10	
6	Extra over partition 2.72m high for corner	No	5	
7	Extra over partition 2.72m high for irregular corner	No	1	
8	Extra over partition 2.72m high for T-intersection	No	4	
9	Extra over partition 2.72m high for fair end	No	1	
<b><u>Insulation</u></b>				
10	51mm 'Jumbo Sound Therm' insulation or equal and approved in cavity of partitioning	m <sup>2</sup>	182	
<b><u>NAILED-UP CEILINGS</u></b>				
<b><u>12.5mm Taper-edge gypsum plasterboard with taped and skimmed flush joints</u></b>				
11	Horizontal portion of bulkhead 1800mm wide including standard steel bracing at 300mm centres, joined with joiner sections and hung with suspension brackets (supporting framework elsewhere)	m	4	
12	Horizontal portion of bulkhead 1200mm wide including standard steel bracing at 300mm centres, joined with joined sections and hung with suspension brackets (supporting framework elsewhere)	m	9	
13	Vertical portion of bulkhead 300mm high including standard steel bracing at 300mm centres, joined with joiner sections and hung with suspension brackets (supporting framework elsewhere)	m	33	
<b><u>Extra over partitions for 44mm solid flush doors with commercial veneer on both sides and rebated meeting styles, hung to and including aluminium door frames with one pair of 100mm aluminium hinges to each hanging stile, including additional studding, trimming, etc. to partitions.</u></b>				
14	Door, size 849 x 2072mm high	No	5	
15	Double door, size 1650 x 2090mm high	No	5	
Carried to Collection				
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Ceilings Partitions And Access Flooring				

Amount

**BILL NO. 6**

**CEILINGS PARTITIONS AND ACCESS FLOORING**

**COLLECTION**

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Bill No. 6

Ceilings Partitions And Access Flooring



		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>					
<b><u>BAY TERRACE REFURBISHMENT</u></b>					
<b><u>BILL NO. 7</u></b>					
<b><u>FLOOR COVERINGS</u></b>					
<b><u>PREAMBLES</u></b>					
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
<b><u>Fixing</u></b>					
Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc.					
<b><u>FLOOR COVERINGS, WALL LININGS, ETC.</u></b>					
<b><u>500 x 500 'Floornet' 'Patch Campus - Anchor' carpet tiles installed in accordance with the manufacturer's instructions</u></b>					
1	On floors in offices	m <sup>2</sup>	3,230		
<b><u>500 x 500 'Floornet' 'Coastline-Grey Black 10' carpet tiles installed in accordance with the manufacturer's instructions</u></b>					
2	On floors in boardrooms	m <sup>2</sup>	326		
<b><u>500 x 500 'Floornet' 'Linear - Aniseed' carpet tiles installed in accordance with the manufacturer's instructions</u></b>					
3	On floors on passages	m <sup>2</sup>	586		
<b><u>1219.2 x 177.8mm 'Sylvan Redwood' heavy commercial vinyl tiles, installed on a well prepared screed</u></b>					
4	On floors	m <sup>2</sup>	80		
Carried To Section Summary				R	
Section No. 2					
Bill No. 7					
Floor Coverings					

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>					
<b><u>BAY TERRACE REFURBISHMENT</u></b>					
<b><u>BILL NO. 8</u></b>					
<b><u>IRONMONGERY</u></b>					
<b><u>PREAMBLES</u></b>					
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill					
<b><u>HINGES, BOLTS, ETC.</u></b>					
<b><u>Manufactured by 'Dorma'</u></b>					
1	102 x 75 x 3mm Ball stainless steel two ball bearing brass hinge (code DBB-SS-009)	No	18		
2	Dust proof socket (code DPS-SS-032)	No	14		
<b><u>Manufactured by 'Howick'</u></b>					
3	150 x 20mm Aluminium lever flush bolt bolt with keep fixed to concrete (code H400)	No	7		
4	600 x 20mm Aluminium lever action flush bolt with keep fixed to concrete (code H409)	No	17		
<b><u>LOCKS</u></b>					
<b><u>Manufactured by 'Dorma'</u></b>					
5	Stainless steel euro-profile cylinder dead lock (code D037D)	No	9		
6	Stainless steel euro-style escutcheon (code DCE-002)	No	22		
7	Rebate conversion set (code D038R)	No	8		
<b><u>Manufactured by 'Cisa'</u></b>					
8	Double cylinder, EN 1303 security grade 3, nickel plated finish (code C2000 0G300-10-12)	No	12		
<b><u>HANDLES</u></b>					
<b><u>Manufactured by 'Dorma'</u></b>					
9	Stainless steel straight tubular BTB pull handle (code DPH 207)	Pairs	20		
<b><u>DOOR CLOSERS</u></b>					
<b><u>Manufactured by 'Dorma'</u></b>					
10	Door closer (code TS73N/EN3-4)	No	9		
Carried to Collection				R	
Section No. 2 Bill No. 8 Ironmongery					

**SUNDRIES**

**Manufactured by 'Dorma'**

11 Stainless steel door stop (code DDS-SS-017)

Unit      Quantity      Rate      Amount

No                      19

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Bill No. 8  
Ironmongery

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**IRONMONGERY**  
**COLLECTION**

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Section No. 2  
Bill No. 8  
Ironmongery

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>					
<b><u>BAY TERRACE REFURBISHMENT</u></b>					
<b><u>BILL NO. 9</u></b>					
<b><u>PLASTERING</u></b>					
<b><u>PREAMBLES</u></b>					
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill					
<b><u>SCREEDS</u></b>					
<b><u>Screeds wood floated, on concrete</u></b>					
1	30mm Thick on floors and landings	m <sup>2</sup>	645		
<b><u>'Pavelite' or equal and approved self levelling screed to existing floors including all necessary preparation, etc. all in accordance with the manufacturer's instructions</u></b>					
2	On floors in patches	m <sup>2</sup>	1,626		
<b><u>INTERNAL PLASTER</u></b>					
<b><u>Cement plaster wood floated for tiles, on brickwork</u></b>					
3	On walls	m <sup>2</sup>	240		
<b><u>Cement plaster steel trowelled, on brickwork</u></b>					
4	On walls	m <sup>2</sup>	672		
<b><u>EXTERNAL PLASTER</u></b>					
<b><u>Cement plaster wood floated, on brickwork</u></b>					
5	On walls	m <sup>2</sup>	83		
Carried To Section Summary				R	
Section No. 2					
Bill No. 9					
Plastering					

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>				
<b><u>BAY TERRACE REFURBISHMENT</u></b>				
<b><u>BILL NO. 10</u></b>				
<b><u>METALWORK</u></b>				
<b><u>PREAMBLES</u></b>				
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill				
<b><u>STEEL ROLLER SHUTTERS ETC</u></b>				
<b><u>4000 x 3060mm high galvanised steel roller shutters with 76mm slats (18kg/m²), fixed to brickwork or concrete</u></b>				
1 Manual push-up slatted roller shutter for 4550 x 3000mm high opening	No	2		
<b><u>ALUMINIUM WINDOWS, DOORS, ETC</u></b>				
<b><u>ALUMINIUM LOUVRE UNITS</u></b>				
<b><u>2100 x 3060mm high Fixed louvre units fixed to brickwork or concrete</u></b>				
2 Purpose made louvre unit for 2100 x 3060mm high opening	No	1		
<b><u>ALUMINIUM SHOPFRONTS</u></b>				
<b><u>Powder coated shopfronts comprised of 'Clip 44' frames, complete with sub frames, doors, ironmongery, laminated glass, sealing, etc and fixing to brickwork, concrete and or steel beams and columns. All ironmongery excluding hinges are measured elsewhere. Reference as per drawing nos: XDNE.E.0037-1-200-A-GA-3001-01-.3; XDNE.E.0037-1-200-A-GA-1001-01-.3</u></b>				
3 Purpose made shopfront, overall size 9045 x 2600mm high including double swing door, size 1805 x 2600mm high (3rd Floor SF6)	No	1		
4 Purpose made shopfront, overall size 6713 x 2600mm high including swing door, size 945 x 2600mm high (2nd Floor SF2)	No	1		
5 Purpose made shopfront, overall size 6250 x 2600mm high (3rd Floor SF4)	No	1		
Carried to Collection			R	
Section No. 2				
Bill No. 10				
Metalwork				

		Unit	Quantity	Rate	Amount
6	Purpose made shopfront, overall size 5237 x 2600mm high including double swing door, size 1845 x 2600mm high (2nd Floor SF1)	No	1		
7	Purpose made shopfront, overall size 4750 x 2600mm high including swing door, size 945 x 2600mm high (2nd Floor SF3)	No	1		
8	Purpose made shopfront, overall size 4700 x 2600mm high including swing door, size 945 x 2600mm high (2nd Floor SF4)	No	1		
9	Purpose made shopfront, overall size 3532 x 2600mm high including single doors, size 945 x 2600mm high and 930 x 2600mm high (3rd Floor SF5)	No	1		
10	Purpose made shopfront, overall size 3412 x 2600mm high including swing door, size 945 x 2600mm high (3rd Floor SF1)	No	1		
11	Purpose made shopfront, overall size 2572 x 2600mm high (3rd Floor SF3)	No	1		
12	Purpose made fixed panel, overall size 2490 x 2600mm high (2nd Floor SF5)	No	1		
13	Purpose made shopfront, overall size 1989 x 2600mm high including swing door, size 945 x 2600mm high (2nd Floor SF6)	No	1		
14	Purpose made single swing door, overall size 960 x 2600mm high (3rd Floor SF2)	No	1		
	<b><u>Powder coated shopfronts as per 'Wispeco' aluminum system or equal and apporved, complete with sub frames, ironmongery, glass, sealing, etc and fixing to brickwork or concrete</u></b>				
15	Purpose made shopfront, 900 x 2100mm high	No	4		
Carried to Collection				R	
Section No. 2					
Bill No. 10					
Metalwork					

Amount

**BILL NO. 10**  
**METALWORK**  
**COLLECTION**

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Carried To Section Summary

R

Section No. 2  
Bill No. 10  
Metalwork



	Unit	Quantity	Rate	Amount
<b>SECTION NO. 2</b> <b>BAY TERRACE REFURBISHMENT</b> <b>BILL NO. 11</b> <b>TILING</b> <b>PREAMBLES</b> The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill <b>SUPPLEMENTARY PREAMBLES</b> <b>Patterns</b> Unless otherwise described, tiles shall be laid with continuous joints in both directions <b>Fixing</b> Unless described as fixed with adhesive to plaster (plaster elsewhere) descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles Waterproof grout is normally used in showers, on balconies, etc. Epoxy grout is used in kitchens, butcheries, etc, where floors are frequently washed with detergents <b>WALL TILING</b> <b>600 x 600mm porcelain tile base stone matt glazed porcelain tile, 600 x 600mm 1st grade pei 5 heavy duty commercial tile fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted grout</b> 1 On walls m <sup>2</sup> 681 <b>400 x 1200mm 'Altai' 'Coventry' grey ceramic tile fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted grout all in accordance with the manufacturer's instructions</b> 2 On walls m <sup>2</sup> 50 <div style="text-align: right;">Carried to Collection</div> <div style="text-align: right;">R</div>				
Section No. 2 Bill No. 11 Tiling				

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Amount

**BILL NO. 11**

**TILING**

**COLLECTION**

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Carried To Section Summary

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Section No. 2

Bill No. 11

Tiling

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>				
<b><u>BAY TERRACE REFURBISHMENT</u></b>				
<b><u>BILL NO. 12</u></b>				
<b><u>PLUMBING AND DRAINAGE</u></b>				
<b><u>PREAMBLES</u></b>				
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill				
<b><u>SANITARY FITTINGS</u></b>				
<b><u>Stainless steel</u></b>				
1	'Franke' 'Quinline QLX 621-120' stainless steel sink including 'Spazi F/2' double bowl plumbing kit and all other necessary fittings, fixings, etc.	No	5	
<b><u>TAPS, VALVES, ETC.</u></b>				
<b><u>Manufactured by 'Franke'</u></b>				
2	15mm chromium plated isolating ball valve (Code 1030-15)	No	10	
3	'Franke' 'Enix Square' chrome mixer with swivel spout, including 2 No. braided flexible connectors, 350mm long	No	5	
<b><u>WATER SUPPLIES</u></b>				
<b><u>Class 1 copper pipes with capillary couplings</u></b>				
4	15mm Pipes chased into brickwork including brown paper lagging	m	10	
<b><u>Class 1 copper pipes with brass compression couplings</u></b>				
5	22mm Pipes chased into brickwork including brown paper lagging	m	5	
<b><u>Extra over Class 1 copper pipes for capillary fittings</u></b>				
6	15mm Fittings	No	20	
7	22mm Fittings	No	10	
<b><u>Extra over Class 1 copper pipes for brass compression fittings</u></b>				
8	15mm Fittings	No	5	
9	22mm Fittings	No	5	
Carried to Collection			R	
Section No. 2				
Bill No. 12				
Plumbing And Drainage				

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Amount

**BILL NO. 12**

**PLUMBING AND DRAINAGE**

**COLLECTION**

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Carried To Section Summary

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Section No. 2

Bill No. 12

Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b> <b><u>BAY TERRACE REFURBISHMENT</u></b> <b><u>BILL NO. 13</u></b> <b><u>GLAZING</u></b>  <b><u>PREAMBLES</u></b> The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill  <b><u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u></b> <b><u>4mm Silvered float glass copper backed mirrors with polished edges, holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs</u></b>				
1 Mirror 510 x 1070mm high fixed to and including 38 x 38mm hardwood frame with overall girth of 2600mm plugged to brick walls	No	16		
Carried To Section Summary			R	
Section No. 2 Bill No. 13 Glazing				

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>				
<b><u>BAY TERRACE REFURBISHMENT</u></b>				
<b><u>BILL NO. 14</u></b>				
<b><u>PAINTWORK</u></b>				
<b><u>PREAMBLES</u></b>				
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill				
<b><u>PREPARATORY WORK TO EXISTING WORK</u></b>				
<b><u>Painting, etc.</u></b>				
All painting shall be done in accordance with specifications unless otherwise described				
Previously painted plastered surfaces				
Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
<b><u>ON NEW EXTERNAL FLOATED PLASTER SURFACES</u></b>				
<b><u>Prepare walls and apply one coat primer and two coats luxurious silk paint</u></b>				
1 Walls	m <sup>2</sup>	75		
<b><u>One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use</u></b>				
2 Walls	m <sup>2</sup>	102		
<b><u>One coat alkali resistant primer and two coats PVA emulsion paint for interior use</u></b>				
3 Walls	m <sup>2</sup>	1,317		
<b><u>ON EXISTING WOODEN SURFACES</u></b>				
<b><u>One coat primer and two coats premium quality polyurethane enamel paint</u></b>				
4 Doors	m <sup>2</sup>	112		
5 Door frames etc	m <sup>2</sup>	495		
6 Wooden floor slats	m <sup>2</sup>	103		
Carried to Collection			R	
Section No. 2 Bill No. 14 Paintwork				



	Unit	Quantity	Rate	Amount
<p><b><u>ON EXISTING INTERNAL FLOATED PLASTER SURFACES</u></b></p> <p><b><u>Two coats superior quality acrylic emulsion paint for interior and exterior use</u></b></p>				
7 Walls	m <sup>2</sup>	1,416		
Carried to Collection				
Section No. 2				
Bill No. 14				
Paintwork				

Amount

**BILL NO. 14**  
**PAINTWORK**  
**COLLECTION**

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Carried To Section Summary

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Section No. 2  
Bill No. 14  
Paintwork

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b> <b><u>BAY TERRACE REFURBISHMENT</u></b> <b><u>BILL NO. 15</u></b> <b><u>PAPERHANGING</u></b>  <b><u>PREAMBLES</u></b> The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill  <b><u>PAPERHANGING TO EXISTING WORK</u></b> <b><u>Preparatory work to previously painted surfaces</u></b> Surfaces shall be thoroughly washed down and allowed to dry completely before paperhanging is commenced. Blistered and peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth. All surfaces shall be painted with a single coat of interior quality PVA emulsion paint  <b><u>Paper backed vinyl wallpaper by 'Design Syndicate' with code 'Muse - MU 1113' fixed to previously painted surfaces in strict accordance to the manufacturer's specifications</u></b>				
1 Wall paper to existing partition walls including single coat PVA paint	m <sup>2</sup>	4,054		
Carried To Section Summary			R	
Section No. 2 Bill No. 15 Paperhanging				

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>					
<b><u>BAY TERRACE REFURBISHMENT</u></b>					
<b><u>BILL NO. 16</u></b>					
<b><u>EXTERNAL WORKS</u></b>					
<b><u>SITE WORKS, ETC.</u></b>					
<b><u>Saw cut existing premix</u></b>					
1	Average 50mm thick in parking, roads, etc.	m	501		
<b><u>Breaking up and removing existing premix</u></b>					
2	Average 50mm thick in parking, roads, etc.	m <sup>2</sup>	254		
<b><u>SLEEVES FOR ELECTRICAL CABLES, ETC.</u></b>					
<b><u>Excavations, etc.</u></b>					
3	Excavations in existing layerworks for pipe trenches not exceeding 1m	m <sup>3</sup>	240		
<b><u>Extra over all excavations for carting away</u></b>					
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	243		
<b><u>Class 6 PVC-U pipes</u></b>					
5	Set of two 160mm diameter pipes laid side-by-side in trenches (trenches elsewhere)	m	240		
<b><u>Inspection chambers</u></b>					
6	Draw chamber (Type E6) size 2648 x 2190mm with minimum depth of 1000mm internally, including all necessary excavations, blinding, concrete base and thickenings, formwork, reinforcement, brickwork, plaster, precast concrete frame and cover, 2 No. 160mm diameter holes for ducts and including cart away of excavated material, etc.	No	1		
7	Draw chamber (Type E1) size 1380 x 1380mm with minimum depth of 1030mm internally, including all necessary excavations, blinding, concrete base and thickenings, formwork, reinforcement, brickwork, plaster, precast concrete frame and cover, 4 No. 160mm diameter holes for ducts and including cart away of excavated material, etc.	No	7		
<b><u>Filling of coarse river sand supplied by the contractor and compacted in accordance with the engineers requirements</u></b>					
8	Around 160mm ducts as bedding and pipe cover	m <sup>3</sup>	144		
Carried to Collection				R	
Section No. 2					
Bill No. 16					
External Works					

		Unit	Quantity	Rate	Amount
<b><u>ROADWORK, PARKING AREAS AND PAVING</u></b>					
<b><u>Filling supplied by the contractor under parking areas, roadways, etc.</u></b>					
9	Subbase course of (G5) natural gravel material, compacted to 95% Mod AASHTO density	m <sup>3</sup>	48		
10	Subbase course of (G7) natural gravel material, compacted to 95% Mod AASHTO density	m <sup>3</sup>	48		
11	Base course of (G2) graded crushed stone, compacted to 95% Mod AASHTO density	m <sup>3</sup>	48		
<b><u>Bituminous premix road surfacing</u></b>					
12	50mm Thick paving to parking areas, roadways, etc including bitumin spray to base course	m <sup>2</sup>	360		
<b><u>FENCING AND GATES, ETC.</u></b>					
<b><u>Galvanised steel sliding gate with frame formed of 40 x 40 x 4mm square hollow sections with 75 x 75 x 4mm steel angle pales at 120mm centres including 3 no. 80mm wheels per leaf and 75mm angle track bolted to concrete including all necessary guides, bolts, etc in accordance with drawings and specifications</u></b>					
13	Sliding gate, size 5050 x 3000mm high	No	2		
<b><u>RAMP AND BEAMS, ETC.</u></b>					
<b><u>Excavations, in earth not exceeding 2m deep</u></b>					
14	Excavations in layers for reduced levels unders floors	m <sup>3</sup>	3		
<b><u>Compaction of ground surfaces, etc.</u></b>					
15	Compaction of ground surfaces under floors, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m <sup>2</sup>	15		
<b><u>30MPa/19mm reinforced concrete</u></b>					
16	In ground beams	m <sup>3</sup>	1		
17	In ramps including edge thickenings	m <sup>3</sup>	2		
<b><u>Rough formwork to sides</u></b>					
18	Edges, risers, ends and reveals exceeding 300mm high or wide	m	30		
Carried to Collection				R	
Section No. 2					
Bill No. 16					
External Works					

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Amount

**BILL NO. 16**

**EXTERNAL WORKS**

**COLLECTION**

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Section No. 2  
Bill No. 16  
External Works

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 2</u></b>				
<b><u>BAY TERRACE REFURBISHMENT</u></b>				
<b><u>BILL NO. 17</u></b>				
<b><u>REDECORATION WORK</u></b>				
<b><u>PREAMBLES</u></b>				
The Contractor is Referred to the relevent Clauses in the separate document General Preambles for Trades (2017) and to the Supplementary Preambles which are incorporated in this Bill				
<b><u>BLINDS</u></b>				
<b><u>Venetian blinds formed of 25mm slats inclusive of all components, operating mechanisms with headrail and bottom rail to match colour of slats with top fixed to underside of reveals of window recess</u></b>				
1	Venetian blinds, size 1500 x 1500mm to suit opening height of 1600mm	No	200	
2	Venetian blinds, size 1100 x 1500mm to suit opening height of 1600mm	No	10	
<b><u>Vertical blinds formed of 127mm slats and fixed to vertical walls of window opening including and necessary supporting fixtures and fixings across the opening</u></b>				
3	Vertical blinds to opening 13800 x 2800mm high, slats to be ' Glacier - Alabaster'	No	4	
4	Vertical blinds to opening 2500 x 2800mm high, slats to be ' Glacier - Alabaster'	No	8	
5	Vertical blinds to opening 1500 x 2800mm high, slats to be ' Glacier - Alabaster'	No	24	
<b><u>SEALING OF TILES, ETC.</u></b>				
<b><u>Clean down existing tiles and joints, removing all stains and dirt and seal with an approved tile sealer in accordance wth the manufactrurer's instructions</u></b>				
6	300 x 300mm Slate tiles with 10mm joints	m²	140	
Carried To Section Summary				R
Section No. 2				
Bill No. 17				
Redecoration Work				



Amount

**SECTION NO. 2**

**BAY TERRACE REFURBISHMENT**

**BILL NO. 18**

**PROVISIONAL SUMS**

**BUDGETARY ALLOWANCES**

**Budgetary allowances are to be price at bills rates or rates to to be agreed to, in terms of the contract**

1	Provide the sum of R 400,000.00 for artwork and decor	Item	400,000	00
2	Provide the sum of R 300,000.00 for sundry building work relating to specialist installations	Item	300,000	00
3	Provide the sum of R200,000.00 for external and internal signage	Item	200,000	00
4	Provide the sum of R100,000.00 for reception furniture	Item	100,000	00

Carried To Section Summary

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Section No. 2

Bill No. 18

Provisional Sums

Amount

**SECTION NO. 2**

**BAY TERRACE REFURBISHMENT**

**SECTION SUMMARY**

Bill No.

Page

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4	MASONRY	13
5	CARPENTRY AND JOINERY	16
6	CEILINGS PARTITIONS AND ACCESS FLOORING	19
7	FLOOR COVERINGS	20
8	IRONMONGERY	23
9	PLASTERING	24
10	METALWORK	27
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12	PLUMBING AND DRAINAGE	33
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Section No. 2  
SECTION SUMMARY

**SECTION NO. 3**  
**ELECTRICAL WORK**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<b><u>SECTION 3</u></b>				
	<b><u>BILL NO. 1</u></b>				
	<b><u>ELECTRICAL WORK</u></b>				
	<b><u>PREAMBLES</u></b>				
	<b><u>Working Conditions:</u></b> The contractor is hereby made aware that the proposed work is to be executed in confined spaces and within an occupied building  The contractor is to allow for all costs in this regard in the tender price				
	<b><u>Specifications, drawings, etc:</u></b> Tenderers are referred to the specification/drawings accompanying these bills of quantities for the electrical work, for the full descriptions of the following items which are to be read and priced in conjunction with the relevant documents  Any other items not specified that the contractor deems necessary to complete the installation fully and to specifications must be included and priced in the relevant items already in the bills of quantities				
	<b><u>Distribution boards etc</u></b>  Rates for distribution boards etc are to include for busbars, jumpers, neutral bars, internal wiring and connections, circuit identification markers, control gear labels, circuit legend cards and working drawings				
	<b><u>Switches, socket outlets, etc</u></b> Rates for switches, socket outlets, etc are to include for screwing to outlet boxes, connecting up and cover plates				
	<b><u>Light fittings</u></b> Rates for light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described				

		UNIT	QTY	RATE	AMOUNT
1	<b><u>GENERATOR</u></b>				
1.1	Supply and Installation of 1 MVA, 4 –Pole, 3 – phase, 50Hz, 400V rated Standby Diesel Generator Plant complete with base support structure and fuel tank	no.	1		
1.2	Supply and Installation of Mains/Standby Automatic Change over Panel with electrical distribution board. The Panel shall contain similar or equal approved to OTM 1600E series Automatic Transfer switch rated; 4 – Pole, 400V, 1600A with a handle for manual operation. Panel shall be fully equipped with a cable glanding plate, metering equipment, protective earth bar and all necessary mechanical supports accessories. The Panel shall be made of 3CR12 type stainless steel, powder coated to 40 microns and painted orange with the essential section being red in colour.	no.	1		
1.3	Supply and Installation of 12 x 240mm <sup>2</sup> , single core, SWA, PVC insulated, low voltage copper cable	m	12		
1.4	Supply and Installation of 3 x 120mm <sup>2</sup> , single core, SWA, PVC insulated, low voltage copper cable	m	3		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
	<b><u>GROUND FLOOR</u></b>				
2	<b><u>DISTRIBUTION BOARDS</u></b>				
2.1	Supply, delivery and installation of the floor standing Main Distribution Board M : Comprising of distribution board, all switchgear, surge protection, labelling and wiring as per specification TPD-002-DBSPEC and Drawing Number: XDN.E.0037-1-200-E-LA-0003-01-.2	no.	1		
2.2	Supply, delivery and installation of Distribution Board A : Comprising of distribution board, all switchgear, surge protection, labelling and wiring as per specification TPD-002-DBSPEC and Drawing Number: XDN.E.0037-1-200-E-LA-0006-01-.2	no.	1		
3	<b><u>UNITERRUPTED POWER SUPPLY</u></b>				
3.1	Supply, delivery and installation of Equal or similar approved to Schnieder Electric Easy UPS 3S 20 kVA 400 V 3:3 UPS for external batteries. With lithium ion battery, Run-time 30 minutes.	no.	1		
4	<b><u>LUMINAIRES AND LAMPS</u></b>				
4.1	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm) with intergrated occupancy sensor	no.	31		
4.2	supply and installation of new equal or similar approved to TLF LED panel - EMG/15min (600 x 600mm) with intergrated occupancy sensor	no.	16		
4.3	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm) Dimmable	no.	8		
4.4	Supply, delivery and installation of Equal or similar approved to Schnieder Electric Easy UPS 3S 20 kVA 400 V 3:3 UPS for external batteries. With lithium ion battery, Run-time 30 minutes.	no.	4		
4.5	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k	no.	25		
4.6	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k, Emergency Light/Maintained/15Min.	no.	3		
4.7	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 12W/4000k	no.	3		
4.8	Supply, delivery and installation of Equal or similar approved to Beka LED Disk, 16W	no.	2		
4.9	Supply, delivery and installation of Equal or similar to Beka VLN LED 40W 5ft with intergrated motion sensor	no.	21		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
4.10	Supply, delivery and installation of Equal or similar to Beka VLN LED 40W 5ft with intergrated motion sensorEmergency Light/Maintained/15M	no.	19		
4.11	Supply, delivery and installation of Equal or similar to PIOLED RGBW LED strip in corner profile housing with dotless effect, including LED controller and power supply.	m	18		
4.12	Supply, delivery and installation of Equal or similar to Regent Vera 30W/4000K Decorative pendant to be suspended 0.5m from ceiling fitting dimensions 2850 X 50mm X 70mm	no.	4		
5	<b><u>POWER SUPPLY POINTS</u></b>				
5.1	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated double socket outlet.	no.	2		
5.2	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet.	no.	7		
5.3	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet installed on power skirting.	no.	30		
5.4	Supply, delivery and installation of Dedicated 16A, 230V single socket outlet installed on power skirting	no.	68		
5.5	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed next to the position of a fan or airconditioning unit.	no.	8		
5.6	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed 1350mm above floor level	no.	4		
5.7	Supply and Installation of equal or similar approved to Legrand 3-tier power skirting	m	140		
5.8	Supply, delivery and installation of Equal or similar approved to Legrand underfloor box with 16A non dedicated double socket outlets	no.	2		
5.9	Supply, delivery and installation of Equal or similar approved to Legrand 5A unswitched socket outlets	no.	30		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
5.10	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, weatherproof switch disconnector (Isolator) to be installed next to Airconditioning Unit	no.	3		
6	<b><u>SWITCHING</u></b>				
6.1	Supply, delivery and installation of Equal or similar approved to Schneider occupancy sensor	no.	7		
6.2	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V Single lever one way light switch,	no.	2		
6.3	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V two lever one way light switch,	no.	2		
6.4	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V Dimmer light switch,	no.	2		
6.5	Supply, delivery and installation of Equal or similar approved to Legrand Arteor RGBW wall mounted LED controller installed on 4x2 graphite black cover,	no.	1		
7	<b><u>CABLE ACCESSORIES</u></b>				
7.1	32mm PVC Conduit droppers in wall from ceiling to pwer skirting, 32mm Elect, 32mm Data, 32mm Comms together with boxes,couples adapters and accessories	m	30		
7.2	Supply, delivery and installation of PVC trunking Wiring Consumable accessories including Lugs, Ferrules, Terminal Blocks, Screws,connections, compression glands etc	sum	1		
8	<b><u>CABLING AND WIRING</u></b>				
8.1	Supply, delivery and installation of 240 mm2, 4 core cable, ECC, SWA, PVC copper cable	m	10		
8.2	Supply, delivery and installation of 4 mm2, Red	m	910		
8.3	Supply, delivery and installation of 4 mm2, White	m	910		
8.4	Supply, delivery and installation of 4 mm2, Blue	m	910		
8.5	Supply, delivery and installation of 4 mm2, Black	m	910		
8.6	Supply, delivery and installation of 4 mm2, Yellow/Green	m	910		
8.7	Supply, delivery and installation of 2.5 mm2, Red	m	1300		
8.8	Supply, delivery and installation of 2.5 mm2, White	m	1300		
	carried forward				R



		UNIT	QTY	RATE	AMOUNT
	brought forward				R
8.9	Supply, delivery and installation of 2.5 mm2, Blue	m	1300		
8.10	Supply, delivery and installation of 2.5 mm2, Black	m	1300		
8.11	Supply, delivery and installation of 2.5 mm2, Yellow/Green	m	1300		
9	<b><u>TESTING AND COMMISSIONING</u></b>				
9.1	Testing and commissioning of complete installation in accordance to SANS 10142-1 including the issuing of certificate of compliance	sum	1		
	<b><u>MAZZANINE FLOOR</u></b>				
10	<b><u>DISTRIBUTION BOARDS</u></b>				
10.1	Supply, delivery and installation of Distribution Board B : Comprising distribution board, all switchgear, surge protection, labelling and wiring as per specification TPD-002-DBSPEC and Drawing Number: XDN.E.0037-1-200-E-LA-0006-01-.2	no.	1		
11	<b><u>LUMINAIRES AND LAMPS</u></b>				
11.1	Supply, delivery and installation of Equal or similar to Beka VLN LED 40W 5ft with intergrated motion sensor	no.	21		
11.2	Supply, delivery and installation of Equal or similar to Beka VLN LED 40W 5ft with intergrated motion sensorEmergency Light/Maintained/15M	no.	21		
12	<b><u>POWER SUPPLY POINTS</u></b>				
12.1	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet.	no.	7		
13	<b><u>SWITCHING</u></b>				
13.1	Supply, delivery and installation of Equal or similar approved to Schneider occupancy sensor	no.	1		
14	<b><u>CABLE ACCESSORIES</u></b>				
14.1	Supply, delivery and installation of PVC trunking Wiring Consumable accessories including Lugs, Ferrules, Terminal Blocks, Screws,connections, compression glands etc	sum	1		
15	<b><u>CABLING AND WIRING</u></b>				
15.1	Supply, delivery and installation of 10 mm2, 4 core cable, ECC, SWA, PVC copper cable	m	5		
15.2	Supply, delivery and installation of 2.5 mm2, Red	m	380		
15.3	Supply, delivery and installation of 2.5 mm2, White	m	380		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
15.4	Supply, delivery and installation of 2.5 mm2, Blue	m	380		
15.5	Supply, delivery and installation of 2.5 mm2, Black	m	380		
15.6	Supply, delivery and installation of 2.5 mm2, Yellow/Green	m	380		
16	<b><u>TESTING AND COMMISSIONING</u></b>				
16.1	Testing and commissioning of complete installation in accordance to SANS 10142-1 including the issuing of certificate of compliance	sum	1		
	<b><u>FIRST FLOOR</u></b>				
17	<b><u>DISTRIBUTION BOARDS</u></b>				
17.1	Supply, delivery and installation of Distribution Board C : Comprising distribution board, all switchgear, surge protection, labelling and wiring as per specification TPD-002-DBSPEC and Drawing Number: XDN.E.0037-1-200-E-LA-1003-01-.2	no.	1		
18	<b><u>UNINTERRUPTED POWER SUPPLY</u></b>				
18.1	Supply, delivery and installation of Equal or similar approved to Schnieder Electric Easy UPS 3S 20 kVA 400 V 3:3 UPS for external batteries. With lithium ion battery, Run-time 30 minutes.	no.	1		
19	<b><u>LUMINAIRES AND LAMPS</u></b>				
19.1	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm) with intergrated occupancy sensor	no.	32		
19.2	supply and installation of new equal or similar approved to TLF LED panel - EMG/15min (600 x 600mm) with intergrated occupancy sensor	no.	12		
19.3	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm)	no.	41		
19.4	Supply and Installation of new equal or similar approved to TLF LED panel EMG/15min (600 x 600 mm)	no.	10		
19.5	Supply and Installaton of equal or similar approved to TLF LED panel (600 x 1200mm)	no.	65		
19.6	Supply and Installaton of equal or similar approved to TLF LED panel - EMG/15Min (600 x 1200mm)	no.	37		
19.7	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k	no.	25		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
19.8	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k, Emergency Light/Maintained/15Min.	no.	9		
19.9	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 12W/4000k	no.	7		
19.9	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 12W/4000k	no.	7		
19.10	Supply, delivery and installation of Equal or similar to Beka VLN LED 40W 5ft with intergrated motion sensorEmergency Light/Maintained/15M	no.	8		
19.11	Supply, delivery and installation of Equal or similar to PIOLED RGBW LED strip in corner profile housing with dotless effect, including LED controller and power supply.	m	116		
19.12	Supply, delivery and installation of Equal or similar to MALTA 4-LED OSG 48W/4000K Decorative pendant to be suspended 0.5m from the ceiling.	no.	12		
19.13	Supply, delivery and installation of Equal or similar to Regent Vera 30W/4000K Decorative pendant to be suspended 0.5m from ceiling fitting dimensions 2850 X 50mm X 70mm	no.	2		
20	<b><u>POWER SUPPLY POINTS</u></b>				
20.1	Supply, delivery and installation of Equal or similar approved to Legrand, 16A,230V Single phase, non-dedicated double socket outlet. To be installed 300mm above floor level.	no.	3		
20.2	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet.To be installed 300mm above floor level.	no.	16		
20.3	Supply, delivery and installation of Equal or similar approved to Legrand, 16A,230V Single phase, non-dedicated double socket outlet. To be installed in ceiling void.	no.	6		
20.4	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, three way, non-dedicated single socket outlet installed on power skirting.	no.	100		
20.5	Legrand, 16A,230V Single phase, Dedicated single socket outlet installed on power skirting	no.	269		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
20.6	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed next to the position of a fan or airconditioning unit.	no.	32		
20.7	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed 1350mm above floor level	no.	3		
20.8	Supply, delivery and installation of equal or similar approved to Legrand 125A, 2 Pole, 230V, single phase, wall flush mounted , weatherproof switch disconnecter (Isolator)	no.	3		
20.9	Supply and Installation of equal or similar approved to Legrand 3-tier power skirting	m	386		
20.10	Supply, delivery and installation of Equal or similar approved to Legrand underfloor box with 16A non dedicated double socket outlets	no.	4		
20.11	Supply, delivery and installation of Equal or similar approved to Legrand 5A unswitched socket outlets	no.	62		
21	<b><u>SWITCHING</u></b>				
21.1	Supply, delivery and installation of Equal or similar approved to Schneider occupancy sensor	no.	18		
21.2	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V two lever two way light switch,	no.	4		
21.3	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V two lever one way light switch,	no.	2		
21.4	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V Dimmer light switch,	no.	1		
21.5	Supply, delivery and installation of Equal or similar approved to Legrand Arteor RGBW wall mounted LED controller installed on 4x2 graphite black cover,	no.	4		
22	<b><u>CABLE ACCESSORIES</u></b>				
22.1	32mm PVC Conduit droppers in wall from ceiling to pwer skirting, 32mm Elect, 32mm Data, 32mm Comms together with boxes,couples adapters and accessories	m	351		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
22.2	Supply, delivery and installation of PVC trunking Wiring Consumable accessories including Lugs, Ferrules, Terminal Blocks, Screws,connections, compression glands etc	sum	1		
23	<b><u>CABLING AND WIRING</u></b>				
23.1	Supply, delivery and installation of 6 mm2, Red	m	70		
23.2	Supply, delivery and installation of 6 mm2, White	m	70		
23.3	Supply, delivery and installation of 6 mm2, Blue	m	70		
23.4	Supply, delivery and installation of 6 mm2, Black	m	70		
23.5	Supply, delivery and installation of 6 mm2, Yellow/Green	m	70		
23.6	Supply, delivery and installation of 4 mm2, Red	m	3600		
23.7	Supply, delivery and installation of 4 mm2, White	m	3600		
23.8	Supply, delivery and installation of 4 mm2, Blue	m	3600		
23.9	Supply, delivery and installation of 4 mm2, Black	m	3600		
23.10	Supply, delivery and installation of 4 mm2, Yellow/Green	m	3600		
23.11	Supply, delivery and installation of 2.5 mm2, Red	m	4900		
23.12	Supply, delivery and installation of 2.5 mm2, White	m	4900		
23.13	Supply, delivery and installation of 2.5 mm2, Blue	m	4900		
23.14	Supply, delivery and installation of 2.5 mm2, Black	m	4900		
23.15	Supply, delivery and installation of 2.5 mm2, Yellow/Green	m	4900		
23.16	Supply, delivery and installation of 240 mm2, 4 core cable, ECC, SWA, PVC copper cable	m	15		
24	<b><u>TESTING AND COMMISSIONING</u></b>				
24.1	Testing and commissioning of complete installation in accordance to SANS 10142-1 including the issuing of certificate of compliance	sum	1		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
	<b><u>SECOND FLOOR</u></b>				
25	<b><u>DISTRIBUTION BOARDS</u></b>				
25.1	Supply, delivery and installation of Distribution Board d : Comprising distribution board, all switchgear, surge protection, labelling and wiring as per specification TPD-002-DBSPEC and Drawing Number: XDN.E.0037-1-200-E-LA-2003-01-.2	no.	1		
26	<b><u>UNITERRUPTED POWER SUPPLY</u></b>				
26.1	Supply, delivery and installation of Equal or similar approved to Schnieder Electric Easy UPS 3S 20 kVA 400 V 3:3 UPS for external batteries. With lithium ion battery, Run-time 30 minutes.	no.	1		
27	<b><u>LUMINAIRES AND LAMPS</u></b>				
27.1	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm) with intergrated occupancy sensor	no.	63		
27.2	Supply and installation of new equal or similar approved to TLF LED panel - EMG/15min (600 x 600mm) with intergrated occupancy sensor	no.	26		
27.3	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm)	no.	3		
27.4	Supply and Installation of new equal or similar approved to TLF LED panel - EMG/15min (600 x 600 mm)	no.	1		
27.5	Supply and Installaton of equal or similar approved to TLF LED panel (600 x 1200mm) with intergrated occupancy sensor	no.	65		
27.6	Supply and Installaton of equal or similar approved to TLF LED panel - EMG 15min (600 x 1200mm) with intergrated occupancy sensor	no.	22		
27.7	Supply and Installaton of equal or similar approved to TLF LED panel (600 x 1200mm)	no.	14		
27.8	Supply and Installaton of equal or similar approved to TLF LED panel - EMG/15min (600 x 1200mm)	no.	6		
27.9	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k	no.	33		
27.10	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k, Emergency Light/Maintained/15Min.	no.	5		
27.11	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 12W/4000k	no.	38		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
27.12	Supply, delivery and installation of Equal or similar to PIOLED RGBW LED strip in corner profile housing with dotless effect, including LED controller and power supply.	m	59		
27.13	Supply, delivery and installation of Equal or similar to Sudo suspended 12W/4000K Decorative pendant to be suspended 0.5m from the ceiling.	no.	11		
27.14	Supply, delivery and installation of Equal or similar to Regent Vera 30W/4000K Decorative pendant to be suspended 0.5m from ceiling fitting dimensions 2850 X 50mm X 70mm	no.	5		
27.15	Supply, delivery and installation of Equal or similar to Beka VLN LED 40W 5ft with intergrated motion sensorEmergency Light/Maintained/15M	no.	8		
28	<b><u>POWER SUPPLY POINTS</u></b>				
28.1	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet.To be installed 300mm above floor level.	no.	6		
28.2	Supply, delivery and installation of Equal or similar approved to Legrand, 16A,230V Single phase, non-dedicated double socket outlet. To be installed in ceiling void.	no.	7		
28.3	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet installed on power skirting.	no.	132		
28.4	Legrand, 16A, 230V Single phase, Dedicated single socket outlet installed on power skirting	no.	264		
28.5	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed next to the position of a fan or airconditioning unit.	no.	35		
28.6	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed 1350mm above floor level	no.	3		
28.7	Supply and Installation of equal or similar approved to Legrand 3-tier power skirting	m	386		
28.8	Supply, delivery and installation of Equal or similar approved to Legrand underfloor box with 16A non dedicated double socket outlets	no.	6		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
29	<b><u>SWITCHING</u></b>				
29.1	Supply, delivery and installation of Equal or similar approved to Schneider occupancy sensor	no.	7		
29.2	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V two lever two way light switch,	no.	4		
29.3	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V two lever one way light switch,	no.	2		
29.4	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V Dimmer light switch,	no.	3		
29.5	Supply, delivery and installation of Equal or similar approved to Legrand Arteor RGBW wall mounted LED controller installed on 4x2 graphite black cover,	no.	3		
30	<b><u>CABLE ACCESSORIES</u></b>				
30.1	32mm PVC Conduit droppers in wall from ceiling to pwer skirting, 32mm Elect, 32mm Data, 32mm Comms together with boxes,couples adapters and accessories	m	672		
30.2	Supply, delivery and installation of PVC trunking Wiring Consumable accessories including Lugs, Ferrules, Terminal Blocks, Screws,connections, compression glands etc	sum	1		
31	<b><u>CABLING AND WIRING</u></b>				
31.1	Supply, delivery and installation of 4 mm2, Red	m	4800		
31.2	Supply, delivery and installation of 4 mm2, White	m	4800		
31.3	Supply, delivery and installation of 4 mm2, Blue	m	4800		
31.4	Supply, delivery and installation of 4 mm2, Black	m	4800		
31.5	Supply, delivery and installation of 4 mm2, Yellow/Green	m	4800		
31.6	Supply, delivery and installation of 2.5 mm2, Red	m	5000		
31.7	Supply, delivery and installation of 2.5 mm2, White	m	5000		
31.8	Supply, delivery and installation of 2.5 mm2, Blue	m	5000		
31.9	Supply, delivery and installation of 2.5 mm2, Black	m	5000		
	carried forward				R



		UNIT	QTY	RATE	AMOUNT
	brought forward				R
31.11	Supply, delivery and installation of 240 mm <sup>2</sup> , 4 core cable, ECC, SWA, PVC copper cable	m	20		
32	<b><u>TESTING AND COMMISSIONING</u></b>				
32.1	Testing and commissioning of complete installation in accordance to SANS 10142-1 including the issuing of certificate of compliance	sum	1		
	<b><u>THIRD FLOOR</u></b>				
33	<b><u>DISTRIBUTION BOARDS</u></b>				
33.1	Supply, delivery and installation of Distribution Board C : Comprising distribution board and MCC, all switchgear, surge protection, labelling and wiring as per specification TPD-002-DBSPEC and Drawing Number: XDN.E.0037-1-200-E-LA-3003-01-.2	no.	1		
34	<b><u>UNITERRUPTED POWER SUPPLY</u></b>				
34.1	Schnieder Electric Easy UPS 3S 20 kVA 400 V 3:3 UPS for external batteries. With lithium ion battery, Run-time 30 minutes.	no.	1		
35	<b><u>LUMINAIRES AND LAMPS</u></b>				
35.1	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm) with intergrated occupancy sensor	no.	129		
35.2	supply and installation of new equal or similar approved to TLF LED panel - EMG/15min (600 x 600mm) with intergrated occupancy sensor	no.	41		
35.3	Supply and Installation of new equal or similar approved to TLF LED panel (600 x 600 mm)	no.	8		
35.4	Supply and Installation of new equal or similar approved to TLF LED panel - EMG/15min (600 x 600 mm)	no.	5		
35.5	Supply and Installaton of equal or similar approved to TLF LED panel (600 x 1200mm) with intergrated occupancy sensor	no.	46		
35.6	Supply and Installaton of equal or similar approved to TLF LED panel - EMG 15min (600 x 1200mm) with intergrated occupancy sensor	no.	17		
35.7	Supply and Installaton of equal or similar approved to TLF LED panel (600 x 1200mm)	no.	9		
35.8	Supply and Installaton of equal or similar approved to TLF LED panel - EMG/15min (600 x 1200mm)	no.	4		
35.9	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k	no.	26		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
36	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 18W/4000k, Emergency Light/Maintained/15Min.	no.	9		
36.1	Supply, delivery and installation of Equal or similar approved to PIOLED Round Panel 12W/4000k	no.	32		
36.2	Supply, delivery and installation of Equal or similar to Beka VLN LED 40W 5ft with intergrated motion sensorEmergency Light/Maintained/15M	no.	6		
36.3	Supply, delivery and installation of Equal or similar to PIOLED RGBW LED strip in corner profile housing with dotless effect, including LED controller and power supply.	m	71		
36.4	Supply, delivery and installation of Equal or similar to Sudo suspended 12W/4000K Decorative pendant to be suspended 0.5m from the ceiling.	no.	7		
36.5	Supply, delivery and installation of Equal or similar to Regent Vera 30W/4000K Decorative pendant to be suspended 0.5m from ceiling fitting dimensions 2850 X 50mm X 70mm	no.	4		
37	<b><u>POWER SUPPLY POINTS</u></b>				
37.1	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet.To be installed 300mm above floor level.	no.	19		
37.2	Supply, delivery and installation of Equal or similar approved to Legrand, 16A,230V Single phase, non-dedicated double socket outlet. To be installed in ceiling void.	no.	4		
37.3	Supply, delivery and installation of Equal or similar approved to Legrand, 16A, 230V Single phase, non-dedicated single socket outlet installed on power skirting.	no.	98		
37.4	Supply, delivery and installation Equal or similar approved to Legrand, of 16A, 230V Dedicated single socket outlet installed on power skirting	no.	196		
37.5	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed next to the position of a fan or airconditioning unit.	no.	32		
37.6	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted cord grip switch disconnecter (Isolator) to be installed 1350mm above floor level	no.	5		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
37.7	Supply, delivery and installation of equal or similar approved to Legrand 20A, 2 Pole, 230V, single phase, wall flush mounted , weatherproof switch disconnecter (Isolator)	no.	2		
37.8	Supply and Installation of equal or similar approved to Legrand 3-tier power skirting	m	390		
37.9	Supply, delivery and installation of Equal or similar approved to Legrand underfloor box with 16A non dedicated double socket outlets	no.	19		
37.1	Supply, delivery and installation of Equal or similar approved to Legrand 5A unswitched socket outlets	no.	56		
38	<b><u>SWITCHING</u></b>				
38.1	Supply, delivery and installation of Equal or similar approved to Schneider occupancy sensor	no.	9		
38.2	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V two lever one way light switch,	no.	2		
38.3	Supply, delivery and installation of Equal or similar approved to Legrand Arteor 4x2 graphite 16A, 230V Dimmer light switch,	no.	2		
38.4	Supply, delivery and installation of Equal or similar approved to Legrand Arteor RGBW wall mounted LED controller installed on 4x2 graphite black cover,	no.	3		
39	<b><u>CABLE ACCESSORIES</u></b>				
39.1	32mm PVC Conduit droppers in wall from ceiling to power skirting, 32mm Elect, 32mm Data, 32mm Comms together with boxes,couples adapters and accessories	m	456		
39.2	Supply, delivery and installation of PVC trunking Wiring Consumable accessories including Lugs, Ferrules, Terminal Blocks, Screws,connections, compression glands etc	sum	1		
40	<b><u>CABLING AND WIRING</u></b>				
40.1	Supply, delivery and installation of 4 mm2, Red	m	4800		
40.2	Supply, delivery and installation of 4 mm2, White	m	4800		
40.3	Supply, delivery and installation of 4 mm2, Blue	m	4800		
40.4	Supply, delivery and installation of 4 mm2, Black	m	4800		
40.5	Supply, delivery and installation of 4 mm2, Yellow/Green	m	4800		
40.6	Supply, delivery and installation of 2.5 mm2, Red	m	5000		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
40.7	Supply, delivery and installation of 2.5 mm2, White	m	5000		
40.8	Supply, delivery and installation of 2.5 mm2, Blue	m	5000		
40.9	Supply, delivery and installation of 2.5 mm2, Black	m	5000		
41	Supply, delivery and installation of 2.5 mm2, Yellow/Green	m	5000		
41.1	Supply, delivery and installation of 240 mm2, 4 core cable, ECC, SWA, PVC copper cable	m	25		
42	<b><u>TESTING AND COMMISSIONING</u></b>				
42.1	Testing and commissioning of complete installation in accordance to SANS 10142-1 including the issuing of certificate of compliance	sum	1		
	<b>MV POWER SUPPLY</b>				
43	<b><u>SUPPLY AND DELIVER</u></b>				
43.1	Supply, Delivery, Offloading and Installation of Equal or similar approved to Aberdare Vultex type A, 50mm <sup>2</sup> , 3 core, 6.35/11kV XLPE insulated, copper tape screened, PVC bedded ,galvanised steel wire armoured cable	m	400		
43.2	Supply, Deliver and installation of 1000kVA , 11kV/6.6kV/400V minisubstation.	sum	1		
43.3	Termination kit of 50mm <sup>2</sup> , 3 core, 6.35/11kV XLPE insulated, copper tape screened and PVC sheated cable	ea	2		
44	<b><u>MINISUBSTATION PLINTH</u></b>				
44.1	Design, supply and install a concrete plinth including site clearance, civil layer works, etc (plinth details shall be co-ordinated with the new Mini-Substation design)	sum	1		
45	<b><u>EARTHING AND LIGHTING</u></b>				
45.1	Design, supply, deliver, offload and install an earth bar configuration system with reference to a typical schematic layout shown in drawing number 45BAYT-1-000-A-GA-0000-01-00-TD. The earth bar configuration system shall be inclusive of but not limited to all bars, bolts, nuts, spring washer and the crimp lug. All steel materials used shall be stainless steel.	sum	1		
46	<b><u>TESTING AND COMMISIONING</u></b>				
46.1	Allowance for TNPA Design Engineering team to attend and witness FAT	sum	1		
	carried forward				R

[illegible]

**SECTION NO. 4**  
**MECHANICAL WORKS**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p><b><u>SECTION 3</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>MECHANICAL WORK</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p><b><u>Working Conditions:</u></b></p> <p>The contractor is hereby made aware that the proposed work is to be executed in confined spaces and within an occupied building</p> <p>The contractor is to allow for all costs in this regard in the tender price</p> <p><b><u>Specifications, drawings, etc:</u></b></p> <p>Tenderers are referred to the specification/drawings accompanying these bills of quantities for the mechanical work, for the full descriptions of the following items which are to be read and priced in conjunction with the relevant documents</p> <p>Any other items not specified that the contractor deems necessary to complete the installation fully and to specifications must be included and priced in the relevant items already in the bills of quantities</p> <p><b><u>Ductwork</u></b></p> <p>Descriptions of ducts shall be deemed to include stiffeners, jointing materials, sealants, couplers in the running length and access/inspection panels in accordance with the specification</p> <p><b><u>Dampers</u></b></p> <p>Descriptions of smoke and fire dampers shall be deemed to include fusible links, sleeves, frames, supports and access openings in ducts</p> <p><b><u>Air diffusion</u></b></p> <p>Descriptions of air terminals, grilles, louvres and the like shall be deemed to include necks, frames, supports and flexible connections</p> <p><b><u>Fans</u></b></p> <p>Descriptions of fan assemblies shall be deemed to include supports from the structure, flexible or other connections to ductwork, vibration isolation mountings and airtight inspection doors</p> <p><b><u>Sound attenuators</u></b></p> <p>Descriptions of sound attenuators shall be deemed to include flanged or flexible connections to ducts and supports from the structure</p>				

	UNIT	QTY	RATE	AMOUNT
<p><b><u>Fan coil units, fan air terminals and fan heaters</u></b></p> <p>Descriptions of fan coil units, fan air terminals and fan heaters shall be deemed to include connection points for water, air and electrical supply, for air grilles, dust trays, condensate trays and vibration isolation mountings. Flexible ducts, flexible hose and connecting cables for connecting these units to each other or to water pipe, and electrical supply are separately measured</p> <p><b><u>Major equipment</u></b></p> <p>Descriptions of major equipment such as chillers, air handling units and the like shall be deemed to include connections to water, air and electrical supply and/or discharge points, supports, bearers, vibration insulation mountings, filters, insulation, inspection ladders and gangways, access doors and panels and painting etc as specified</p> <p><b><u>Piping</u></b></p> <p>Pipe diameters are nominal internal unless otherwise stated Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch diameter is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all diameters are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><b><u>Fixing of pipes</u></b></p> <p>Unless otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><b><u>Pump sets</u></b></p> <p>Descriptions of pumps shall be deemed to include connections to water and electrical supply and/or discharge points, vibration insulation mountings, insulation, drip trays with outlets, pressure gauges, etc</p> <p><b><u>Valves</u></b></p> <p>Descriptions of valves shall be deemed to include flanged or screwed connections to pipes, reducers, supports, etc</p> <p><b><u>Insulation</u></b></p> <p>Descriptions of insulation shall be deemed to include priming the pipes with zinc chromate primer before the insulation is applied, painting the insulation when completed and applying vapour barrier where specified</p>				



		UNIT	QTY	RATE	AMOUNT
	<b><u>MECHANICAL ALTERATIONS</u></b>				
	<b><u>Removal of Current HVAC System</u></b>				
	Tenderer to allow for all costs associated with decommissioning and removal of the current HVAC system	Sum	1		
	<b><u>Removal of Waste</u></b>				
	Tenderer to allow for all costs associated with cleaning the site of all rubbish and waste caused by this contract	Sum	1		
	<b><u>Scaffolding</u></b>				
	Provision of Scaffolding for installation of equipment at high level.	Sum	1		
1	<b><u>GROUND FLOOR HVAC (HEATING, VENTILATION, and AIR CONDITIONING)</u></b>				
1.1	<b><u>Air conditioning indoor unit as per Conceptual Drawings</u></b>				
1.2	Supply, deliver, rig into position if necessary, install and commission air conditioning units into place with all its components				
1.3	4-way Ceiling Cassette Indoor Unit: AC2 (3.6kW)	No.	1		
1.4	4-way Ceiling Cassette Indoor Unit: AC3 (4.5kW)	No.	3		
1.5	4-way Ceiling Cassette Indoor Unit: AC5 (7.1kW)	No.	2		
1.6	4-way Ceiling Cassette Indoor Unit: AC8 (12.3kW)	No.	1		
1.7	Wall mounted split unit indoor: AC11 (3.5kW)	No.	1		
1.8	<b><u>Air conditioning Outdoor unit as per Conceptual Drawings</u></b>				
1.9	Supply, deliver, rig into position if necessary, install and commission air conditioning units into place with all its components				
1.10	Outdoor condensor Unit: OAC1 (9.2kW)	No.	2		
1.11	Outdoor condensor Unit: OAC5 (3.5kW)	No.	1		
2	<b><u>Accessories</u></b>				
2.1	Wired Remote Controllers	No.	6		
3	<b><u>Air Terminals</u></b>				
3.1	L1				
3.2	Wall Mounted Louvre (400x200mm)	No.	4		
	carried forward				
					R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
4	<b><u>Air Supply and Extract Fans</u></b>				
4.1	62L/S Wall Mounted fan with washable filter	No.	1		
4.2	133L/S Wall Mounted fan with washable filter	No.	3		
4.3	151L/S Wall Mounted fan with washable filter	No.	3		
5	<b><u>Liquid Refrigerant Piping</u></b>				
5.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	57		
5.2	90 degree bends	No.	5		
5.3	Y Branch Connection	No.	5		
6	<b><u>Gas Refrigerant Piping</u></b>				
6.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	57		
6	90 degree bends	No.	5		
6.3	Y Branch Connection	No.	5		
7	<b><u>Drainage piping</u></b>				
7.1	PVC Piping. Size to be according to suppliers design, shall be included with all fittings and mountings, and seals and valves.	m	47		
7.2	90 degree bends	No.	6		
7.3	Y Branch Connection	No.	4		
	<b><u>FIRST FLOOR HVAC (HEATING, VENTILATION, and AIR CONDITIONING)</u></b>				
8	<b><u>Air conditioning indoor unit as per Conceptual Drawings</u></b>				
	Supply, deliver, rig into position if necessary, install and commission air conditioning units into place with all its components				
8.1	4-way Ceiling Cassette Indoor Unit: IAC1 (2.2kW)	No.	10		
8.2	4-way Ceiling Cassette Indoor Unit: IAC2 (3.6kW)	No.	3		
8.3	4-way Ceiling Cassette Indoor Unit: IAC3 (4.5kW)	No.	10		
8.4	4-way Ceiling Cassette Indoor Unit: IAC5 (7.1kW)	No.	3		
8.5	4-way Ceiling Cassette Indoor Unit: IAC6 (8.2kW)	No.	3		
8.6	4-way Ceiling Cassette Indoor Unit: IAC7 (9kW)	No.	3		
8.7	Wall mounted split unit: IAC11 (3.5kW)	No.	1		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
9	<b><u>Air conditioning Outdoor unit as per Conceptual Drawings</u></b>				
	Supply, deliver, rig into position if necessary, install and commission air conditioning units into place with all its components				
9.1	Outdoor VRV heat pump Unit: OAC2 (179.2kW)	No.	1		
9.2	Outdoor VRV heat pump Unit: OAC3 (156.8kW)	No.	1		
9.3	Outdoor VRV heat pump Unit: OAC4(257.6kW)	No.	1		
9.4	Outdoor Condensor Unit: OAC5 (3.5kW)	No.	3		
10	<b><u>Ductwork</u></b>				
	All Ductwork to be manufactured from galvanised sheet metal and installed in accordance with SABS 1238 and SABS 0173. Round ducting to be of the spiral wound type unless indicated otherwise. Air Conditioning ductwork to be insulated to prevent condensation.				
10.1	Flexible Ø250 mm duct	m	15		
10.2	400x200mm steel duct	m	3		
10.3	450x150mm steel duct	m	7		
10.4	450x400mm reducer	m	1		
11	<b><u>Accessories</u></b>				
11.1	Wired Remote Controllers	No.	21		
12	<b><u>Air Terminals</u></b>				
12.1	<b>SG1</b>				
12.1.1	Wall Mounted Louvre (400X400mm)	No.	6		
12.2	<b>RG1</b>				
12.2.1	Ceiling Mounted return air grill with mounting frame (400x400mm)	No.	6		
12.3	<b>RG2</b>				
12.3.1	Wall Mounted Return Air Grille,mounting frame (400x200mm)	No.	10		
12.4	<b>RG3</b>				
12.4.1	Wall Mounted return air grill with frame and vermin mesh (400x400mm)	No.	2		
12.5	<b>RG4</b>				
12.5.1	Ceiling Mounted return air grill with mounting frame and adjusting damper (400x400m)	No.	1		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
12.6	<b>WL1</b>				
12.6.1	Wall Mounted Weather Louvre with mounting frame and vermin (450x150)	No.	1		
13	<b><u>Air Supply and Extract Fans</u></b>				
13.1	<b>F2</b>				
13.1.1	Wall Mounted fan with washable filter (38L/s)	No.	5		
13.2	<b>F3</b>				
13.2.2	Wall Mounted fan with washable filter (62L/s)	No.	2		
13.3	<b>F5</b>				
13.3.3	Wall Mounted fan with washable filter (133L/s)	No.	10		
13.4	<b>F6</b>				
13.4.1	Wall Mounted fan with washable filter (151L/s)	No.	9		
13.5	<b>F6</b>				
13.5.1	Wall Mounted fan with washable filter (269L/s)	No.	1		
13.6	<b>F7</b>				
13.6.1	Wall Mounted fan with washable filter (476L/s)	No.	1		
13.7	<b>F9</b>				
13.7.1	Wall Mounted fan with washable filter (290L/s)	No.	1		
14	<b><u>Liquid Refrigerant Piping</u></b>				
14.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	369		
14.2	90 degree bends	No.	16		
14.3	Y Branch Connection	No.	21		
15	<b><u>Gas Refrigerant Piping</u></b>				
15.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	369		
15.2	90 degree bends	No.	16		
15.3	Y Branch Connection	No.	21		
16	<b><u>Drainage piping</u></b>				
16.1	PVC Piping. Size to be according to suppliers design, shall be included with all fittings and mountings, and seals and valves.	m	173		
16.2	90 degree bends	No.	6		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
16.3	Y Branch Connection	No.	26		
	<b><u>SECOND FLOOR HVAC (HEATING, VENTILATION, and AIR CONDITIONING)</u></b>				
17	<b><u>Air conditioning indoor unit as per Conceptual Drawings</u></b>				
	Supply, deliver, rig into position if necessary, install and commission air conditioning units into place with all its components				
17.1	4-way Ceiling Cassette Indoor Unit: IAC1 (2.2kW)	No.	8		
17.2	4-way Ceiling Cassette Indoor Unit: IAC2 (3.6kW)	No.	2		
17.3	4-way Ceiling Cassette Indoor Unit: IAC5 (7.1kW)	No.	15		
17.4	4-way Ceiling Cassette Indoor Unit: IAC6 (8.2kW)	No.	5		
17.5	Wall mounted split unit: IAC11 (3.5kW)	No.	1		
18	<b><u>Ductwork</u></b>				
	All Ductwork to be manufactured from galvanised sheet metal, and installed in accordance with SABS 1238 and SABS 0173. Round ducting to be of the spiral wound type unless indicated otherwise. Air Conditioning ductwork to be insulated to prevent condensation.				
18.1	Flexible Ø250 mm duct	m	11		
18.2	400x200mm steel duct	m	3		
18.3	450x150mm steel duct	m	7		
18.4	450x400mm reducer	m	1		
19	<b><u>Accessories</u></b>				
19.1	Wired Remote Controllers	No.	17		
20	<b><u>Air Terminals</u></b>				
20.1	<b>SG1</b>				
20.1.1	Wall Mounted Louvre (400X400mm)	No.	5		
20.2	<b>RG1</b>				
20.2.1	Ceiling Mounted return air grill with mounting frame (400x400mm)	No.	5		
20.3	<b>RG2</b>				
20.3.1	Wall Mounted Return Air Grille, mounting frame (400x200mm)	No.	6		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
20.4	<b>RG3</b>				
20.4.1	Wall Mounted return air grill with frame and vermin mesh (400x400mm)	No.	2		
20.5	<b>RG4</b>				
20.5.1	Ceiling Mounted return air grill with mounting frame and adjusting damper (400x400mm)	No.	1		
20.6	<b>WL1</b>				
20.6.1	Wall Mounted Weather Louvre with mounting frame and vermin (450x150)	No.	1		
21	<b><u>Air Supply and Extract Fans</u></b>				
21.1	<b>F2</b>				
21.1.1	Wall Mounted fan with washable filter (38L/s)	No.	4		
21.2	<b>F3</b>				
21.2.1	Wall Mounted fan with washable filter (62L/s)	No.	2		
21.3	<b>F5</b>				
21.3.1	Wall Mounted fan with washable filter (133L/s)	No.	14		
21.4	<b>F6</b>				
21.4.1	Wall Mounted fan with washable filter (151L/s)	No.	6		
21.5	<b>F8</b>				
21.5.1	Wall Mounted fan with washable filter (476L/s)	No.	1		
21.6	<b>F9</b>				
21.6.1	Wall Mounted fan with washable filter (290L/s)	No.	1		
22	<b><u>Liquid Refrigerant Piping</u></b>				
22.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	369		
22.2	90 degree bends	No.	16		
22.3	Y Branch Connection	No.	21		
23	<b><u>Gas Refrigerant Piping</u></b>				
23.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	369		
23.2	90 degree bends	No.	16		
23.3	Y Branch Connection	No.	21		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
24	<b><u>Drainage piping</u></b>				
24.1	PVC Piping. Size to be according to suppliers design, shall be included with all fittings and mountings, and seals and valves.	m	173		
24.2	90 degree bends	No.	6		
24.3	Y Branch Connection	No.	26		
	<b><u>THIRD FLOOR HVAC (HEATING, VENTILATION, and AIR CONDITIONING)</u></b>				
25	<b><u>Air conditioning indoor unit as per Conceptual Drawings</u></b>				
	Supply, deliver, rig into position if necessary, install and commission air conditioning units into place with all its components				
25.1	4-way Ceiling Cassette Indoor Unit: IAC2 (3.6kW)	No.	2		
25.2	4-way Ceiling Cassette Indoor Unit: IAC3 (4.5kW)	No.	7		
25.3	4-way Ceiling Cassette Indoor Unit: IAC4 (5.6kW)	No.	3		
25.4	4-way Ceiling Cassette Indoor Unit: IAC5 (7.1kW)	No.	2		
25.5	4-way Ceiling Cassette Indoor Unit: IAC6 (8.2kW)	No.	3		
25.6	4-way Ceiling Cassette Indoor Unit: IAC7 (9kW)	No.	2		
25.7	4-way Ceiling Cassette Indoor Unit: IAC8 (12.3kW)	No.	3		
25.8	4-way Ceiling Cassette Indoor Unit: IAC9 (14.1kW)	No.	5		
25.9	4-way Ceiling Cassette Indoor Unit: IAC10 (10.3kW)	No.	6		
25.10	wall mounted split Indoor Unit: IAC11 (3.5kW)	No.	1		
26	<b><u>Ductwork</u></b>				
	All Ductwork to be manufactured from galvanised sheet metal, and installed in accordance with SABS 1238 and SABS 0173. Round ducting to be of the spiral wound type unless indicated otherwise. Air Conditioning ductwork to be insulated to prevent condensation.				
26.1	Flexible Ø250 mm duct	m	6		
26.2	400x200mm steel duct	m	3		
26.3	450x150mm steel duct	m	7		
26.4	450x400mm reducer	m	1		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
27	<b><u>Accessories</u></b>				
27.1	Wired Remote Controllers	No.	17		
28	<b><u>Air Terminals</u></b>				
28.1	<b>SG1</b>				
28.1.1	Wall Mounted Louvre (400X400mm)	No.	5		
28.2	<b>RG1</b>				
28.2.1	Ceiling Mounted return air grill with mounting frame (400x400mm)	No.	5		
28.3	<b>RG2</b>				
28.3.1	Wall Mounted Return Air Grille,mounting frame (400x200mm)	No.	6		
28.4	<b>RG3</b>				
28.4.1	Wall Mounted return air grill with frame and vermin mesh (400x400mm)	No.	2		
28.5	<b>RG4</b>				
28.5.1	Ceiling Mounted return air grill with mounting frame and adjusting damper (400x400mm)	No.	1		
28.6	<b>WL1</b>				
28.6.1	Wall Mounted Weather Louvre with mounting frame and vermin (450x150)	No.	1		
29	<b><u>Air Supply and Extract Fans</u></b>				
29.1	<b>F2</b>				
29.1.1	Wall Mounted fan with washable filter (38L/s)	No.	4		
29.2	<b>F3</b>				
29.2.1	Wall Mounted fan with washable filter (62L/s)	No.	2		
29.3	<b>F5</b>				
29.3.1	Wall Mounted fan with washable filter (133L/s)	No.	14		
29.4	<b>F6</b>				
29.4.1	Wall Mounted fan with washable filter (151L/s)	No.	6		
29.5	<b>F8</b>				
29.5.1	Wall Mounted fan with washable filter (476L/s)	No.	1		
29.6	<b>F9</b>				
29.6.1	Wall Mounted fan with washable filter (290L/s)	No.	1		
	carried forward				R



		UNIT	QTY	RATE	AMOUNT
	brought forward				R
30	<b><u>Liquid Refrigerant Piping</u></b>				
30.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	369		
30.2	90 degree bends	No.	16		
30.3	Y Branch Connection	No.	21		
31	<b><u>Gas Refrigerant Piping</u></b>				
31.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	369		
31.2	90 degree bends	No.	16		
31.3	Y Branch Connection	No.	21		
34	<b><u>Drainage piping</u></b>				
34.1	PVC Piping. Size to be according to suppliers design, shall be included with all fittings and mountings, and seals and valves.	m	173		
34.2	90 degree bends	No.	6		
34.3	Y Branch Connection	No.	26		
34.4	<b>R1</b>				
34.1.1	Return Air Grille,mounting frame (400x400)	No.	3		
34.5	<b>S1</b>				
34.5.1	Supply Air Grille,mounting frame (400x400)	No.	3		
35	<b><u>Air Supply and Extract Fans</u></b>				
35.1	<b>F1</b>				
35.1.1	Wall Mounted fan with washable filter	No.	2		
35.2	<b>F2</b>				
35.2.1	Wall Mounted fan with washable filter	No.	31		
35.3	<b>F3</b>				
35.3.1	Wall Mounted fan with washable filter	No.	1		
36	<b><u>Liquid Refrigerant Piping</u></b>				
36.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	280		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
36.2	90 degree bends	No.	10		
36.3	Y Branch Connection	No.	23		
37	<b><u>Gas Refrigerant Piping</u></b>				
37.1	Refrigerant Copper Piping. Size to be according to suppliers design	m	280		
37.2	90 degree bends	No.	13		
37.3	Y Branch Connection	No.	26		
38	<b><u>Drainage piping</u></b>				
38.1	PVC Piping. Size to be according to suppliers design, shall be included with all fittings and mountings, and seals and valves.	m	180		
38.2	90 degree bends	No.	12		
38.3	Y Branch Connection	No.	20		
39	<b><u>Bulkhead</u></b>				
39.1	850x300mm x 4 (12mm rhino board to be used, prepare, finish and paint. Frame and surround as per manufacturers instruction) including standard steel branderling with joined section and huge suspension brackets	No.	347		
40	<b><u>Passenger Lift</u></b>				
40.1	Design, supply and install 14 passenger Lift as per specification Including stripping and removal, supply and installation of a new lift	No.	1		
	<b><u>SUNDRIES</u></b>				
40	<b><u>Commissioning and Testing</u></b>				
40.1	Allow for testing and commissioning the whole of the Mechanical Installation as laid down in the specification and for re-testing as may be required after the making good of all defective work to the satisfaction of the Consulting Engineer.	Sum	1		
41	<b><u>Certificate for Compliance</u></b>				
41.1	Certificate of Compliance to be issued on completion of the project.	Sum	1		
42	<b><u>Builders Work Drawings</u></b>				
42.1	Builders work layouts on AutoCAD to indicate exact positions of openings and power points.	sum	1		
43	<b><u>Contractor's Shop Drawings</u></b>				
43.1	Contract shop drawings prepared in accordance with co-ordinated Architectural, Structural & Service layouts.	sum	1		
	carried forward				R

		UNIT	QTY	RATE	AMOUNT
	brought forward				R
44	<b><u>Programming of Works</u></b>				
44.1	Programming of the works to run concurrently with the Builders programme.	sum	1		
45	<b><u>Guarantee and Maintenance</u></b>				
45.1	Guarantee and maintenance for the complete installation of mechanical installation including materials and workmanship for a period of TWELVE MONTHS after date of completion	item	1		
46	<b><u>Equipment Approval</u></b>				
46.1	Equipment Procurement Submissions for Engineers Approval.	item	1		
47	<b><u>Operation and Maintenance Manuals</u></b>				
47.1	Provision of Operating and Maintenance Manuals as per the Technical Specification.	item	1		
	Carried to Final Summary				R

**SECTION NO. 5**  
**ICT INFRASTRUCTURE**

Item No.	Description	Unit	Qty	Rate	Amount
	<b><u>SECTION NO. 5</u></b> <b><u>BILL NO. 1</u></b> <b><u>ICT INFRASTRUCTURE</u></b> <b><u>PREAMBLES</u></b> <p>Tenderers are to price strictly in accordance with the specifications and other available documentation. Tenderers shall study all relevant information before pricing this bill of quantities shall be priced to provide the complete Works i.e. the design (where applicable), supply, installation, testing and commissioning, handing over of the fully functional equipment / installation, provision of all as-built documentation and the like, associated operational and maintenance training for Employer staff etc.</p> <p>Any other items not specified that the contractor deems necessary to complete the installation fully and to specifications must be included and priced in the relevant items already in the bills of quantities.</p>				
1	<b><u>LAN INFRASTRUCTURE</u></b>				
1.1	<u>Complete new indoor type flush mounted 1 x RJ45 data outlet point, with 100mm x 50mm outlet box, coated cover to match existing trunking, STP CAT 6A wiring plus associated connectors etc.</u>				
1.1.1	<i>i) Supply</i>	No.	450		
1.1.2	<i>ii) Install</i>	No.	450		
1.2	Network Cabling - STP CAT6 Network cable complete with termination RJ45 connectors including patch panel				
1.2.1	Ground Floor	m	1500		
1.2.2	First Floor	m	10800		
1.2.3	Second Floor	m	11200		
1.2.4	Third Floor	m	11600		
2	<b><u>LABELLING</u></b>				
2.1	Labelling of this section of the installation as specified and /or required by any applicable SANS standard(s), including all necessary and correct fixing materials etc. complete	Sum	1		
3	<b><u>TESTING AND COMMISSIONING</u></b>				
3.1	Complete testing and commissioning of this section of the Network Infrastructure installation as required. <b>Note: Suitably qualified and experienced personnel only to test and commission the relevant equipment / installations</b>	Sum	1		
	Carried to Final Summary				R

			Amount
Section No.	FINAL SUMMARY	Page	
1	PRELIMINARIES	4	
2	BAY TERRACE	45	
3	ELECTRICAL WORK	64	
4	MECHANICAL WORK	78	
5	ICT INFRASTRUCTURE	80	
Total Excluding VAT Carried to Form of Offer and Acceptance			R

## ***Part C3: Scope of Work***

### ***C3.1 Works Information***



## PART C3: SCOPE OF WORK

Document reference	Title	No of page
C3.1	This cover page	1
	<i>Employer's Works</i> Information	63
Total number of pages		64

## C3.1 **EMPLOYER'S WORKS INFORMATION**

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## SECTION 1

### 1 Description of the *works*

#### 1.1 Executive overview

Transnet initiated the numerous work packages to address the business intention through the proposed Automotive terminal. It was determined that handling automotive and loading to ship across a "flattened pier section" at a constant level between quay walls can greatly increase automotive throughput at a seaport. This philosophy was thought to be appropriate for the Durban Port, and it could be implemented through a variety of Port modifications, including the expansion of the Automotive Terminal onto the Ocean Terminal Pier. This entailed moving current activities from the Tug Jetty to other locations. Expansion of the automotive operation onto the existing Ocean Terminal Building and Durmarine Building will required the relocation of administration staff to 45 Bay Terrace.

Transnet has decided for all Transnet Operational Divisions (OD's) to utilize Transnet owned assets/facilities for staff accommodations purposes. OD's have been tasked to identify and refurbish/upgrade the existing facilities. The refurbishment is to ensure that all these administration or operational facilities are compliant with all regulations and standards. TNPA Port of Durban has identified 45 Bay Terrace for refurbishment after conducting a conditional assessment of the building.

The 45 Bay Terrace is a 3-storey building, ground floor has offices, ablution facilities and kitchens and undercover parking, 1st floor has offices, boardrooms, ablution facilities and kitchen with undercover parking, 2nd floor offices has of has offices, boardrooms, ablution facilities and kitchen, 3rd floor offices has of has offices, boardrooms, ablution facilities and kitchen. The building has two emergency stairs, one lift, currently electrical supply from the eThekwin Municipality (building impacted by load shedding with no-backup supply) and has individual split unit air-condition system that provides air conditioning to the building. The 1st to the 2nd floor is fully occupied and the 3rd floor is partially occupied.

The benefits of refurbishment of Bay Terrace Building are as follows:

- Providing safe working environment for TNPA employees
- Optimization of Port Land usage
- Supporting the KZN Logistic Hub Development
- Economies of scale in terms of shared services (security, cleaning, etc.)

### **1.1.1 General description of the *works***

The refurbishment of **45 Bay Terrace Building** generally includes but is not limited to the following:

- Site establishment and site camp area.
- Civil *works* and building *works*
- Building *works*
- Mechanical *works* (HVAC and lift replacement)
- Electrical *works* and providing standby power supply
- Site de-establishment

The *works* that the *Contractor* is to perform *involves* but is not limited to the following:

#### **Ground Floor**

- Remove lift doors
- Remove all the outdoor condenser units
- Remove existing carpet and floor finishes in offices and kitchen
- Remove existing wallpaper
- Remove existing kitchen cupboards and counters
- Remove existing electrical installation
- Remove existing mechanical installation
- Install new Heating, Ventilation and Air Conditioning ( HVAC)
- Install electrical wiring and cable management system
- Install Distribution Board and UPS system
- Install IT Infrastructure
- Install bulk heads and repairs to existing ceiling
- Install electrical light fittings and power outlets and skirting
- Install new kitchen cupboards and counters
- New floor finishes
- Repair and replace any damaged ceiling
- Install new partition as required
- Allow for painting of all walls
- Allow for wallpaper on the partition
- Install new lift
- Commissioning of the lift
- Hand-Over
- Install concrete plinth

- Install generator, mini sub and main distribution board.
- Trenching and construction of electrical manhole.
- Change over from eThekweni supply to the new TNPA supply

### **1<sup>st</sup> Floor**

- Remove lift doors
- Remove all the outdoor condenser units
- Remove existing carpet and floor finishes in offices and kitchen
- Remove existing wallpaper
- Remove existing kitchen cupboards and counters
- Remove existing electrical installation
- Remove existing mechanical installation
- Install new Heating, Ventilation and Air Conditioning ( HVAC)
- Install electrical wiring and cable management system
- Install Distribution Board and UPS system
- Install IT Infrastructure
- Install bulk heads and repairs to existing ceiling
- Install electrical light fittings and power outlets and skirting
- Install new kitchen cupboards and counters
- New floor finishes
- Repair and replace any damaged ceiling
- Install new partition as required
- Allow for painting of all walls
- Allow for wallpaper on the partition
- Commissioning
- Hand-Over

### **2nd Floor**

- Remove lift doors
- Remove all the outdoor condenser units
- Remove existing carpet and floor finishes in offices and kitchen
- Remove existing wallpaper
- Remove existing kitchen cupboards and counters
- Remove existing electrical installation
- Remove existing mechanical installation

- Install new Heating, Ventilation and Air Conditioning ( HVAC)
- Install electrical wiring and cable management system
- Install Distribution Board and UPS system
- Install IT Infrastructure
- Install bulk heads and repairs to existing ceiling
- Install electrical light fittings and power outlets and skirting
- Install new kitchen cupboards and counters
- New floor finishes
- Repair and replace any damaged ceiling
- Install new partition as required
- Allow for painting of all walls
- Allow for wallpaper on the partition
- Commissioning
- Hand-Over

### **3<sup>rd</sup> Floor**

- Remove lift doors
- Remove all the outdoor condenser units
- Remove existing carpet and floor finishes in offices and kitchen
- Remove existing wallpaper
- Remove existing kitchen cupboards and counters
- Remove existing electrical installation
- Remove existing mechanical installation
- Install new Heating, Ventilation and Air Conditioning ( HVAC)
- Install electrical wiring and cable management system
- Install Distribution Board and UPS system
- Install IT Infrastructure
- Install bulk heads and repairs to existing ceiling
- Install electrical light fittings and power outlets and skirting
- Install new kitchen cupboards and counters
- New floor finishes
- Repair and replace any damaged ceiling
- Install new partition as required
- Allow for painting of all walls
- Allow for wallpaper on the partition
- Commissioning of all equipment and lift



- Hand-Over
- Final testing and commissioning

### **Furniture dismantling, storage and assemble**

- During construction, furniture must be dismantled, relocated and stored safely in an appropriate *Contractor's* storage facility.
- Post-construction, furniture will be transferred from the *Contractor's* storage facility to 45 Bay Terrace, re-assembled in a position in accordance with the spatial plan.
- Damages sustained to any of the furniture in the process of being either disassembled reassembled or stored must be reported to *Project Manager* immediately.

### **1.2 Employer's objectives**

The *Employer's* objectives are to:

- Refurbish the 45 Bay Terrace building as described and detailed under 1.1.1
- Complete this project with minimal disruption to ongoing port operations whilst maintaining the highest safety and quality standards.
- Adhere to all applicable legislations, standards and permits.

### **1.3 Interpretation and terminology**

The following abbreviations are used in this *Works* Information:

<b>Abbreviation</b>	<b>Meaning given to the abbreviation</b>
AIA	Authorised Inspection Authority
BBBEE	Broad Based Black Economic Empowerment
CEMP	Construction Environmental Management Plan
CD	Compact Disc
CDR	<i>Contractor</i> Documentation Register
CDS	<i>Contractor</i> Documentation Schedule
CRL	<i>Contractor</i> Review Label
CSHEO	<i>Contractor's</i> Safety, Health and Environmental Officer
CM	Construction Manager
DTI	Department of Trade and Industry
DWG	Drawings
EO	Environmental Officer
HAW	Hazard Assessment <i>Workshop</i>

HAZOP	Hazard and Operability Study
HSSP	Health and Safety Surveillance Plan
INC	Independent Nominated Consultant
IP	Industrial Participation
IR	Industrial Relations
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat
IRCC	Industrial Relations Co-ordinating Committee
JSA	Job Safety Analysis
CIRP	<i>Contractor's</i> Industrial Relations Practitioner
Native	Original electronic file format of documentation
PES	Project Environmental Specifications
PHA	Preliminary Hazard Assessment
PIRM	Project Industrial Relations Manager
PIRPMP	Project Industrial Relations Policy and Management Plan
PLA	Project Labour Agreements
PSIRM	Project Site Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
R&D	Research and Development
SANS	South African National Standards
SASRIA	South African Special Risks Insurance Association
SES	Standard Environmental Specification
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SIP	Site Induction Programme
SMP	Safety Management Plan
SSRC	Site Safety Review Committee

## 2 Engineering and the *Contractor's* design

### 2.1 *Employer's* design

The *Employer's* design for the *works* is to provide the specifications and associated drawings contained in the following annexures:

- *Works* information and all annexures thereto
  - Annexure A: Architectural *Works* Information
  - Annexure B: Electrical *Works* Information
  - Annexure C: Civil *Works* Information
  - Annexure D: Mechanical *Works* Information
  - Annexure E: Structural *Works* Information
- Technical specifications
- Drawings for all work packages

The *Employer* grants the *Contractor* a licence to use the copyright in design data presented to the *Contractor* for the purpose of the *works* (and the *Contractor's* obligation under paragraph 2.2 of the *Employer's Works* Information) ONLY.

The information that the *Contractor* requires from the *Employer* will be made available on request and limited to specific detail as determined by the *Project Manager* determines.

## **2.2 Parts of the *works* which the *Contractor* is to design**

*The Contractor shall submit to the Project Manager for acceptance the following drawings:*

- Layout of laydown areas
- Layout of site offices

In compliance with NEC 3 core clause 21.1 and OHS Act of 1993, All temporary *works* shall be designed by the *Contractor* and shall remain the *Contractor's* responsibility, the *Contractor* shall:

- Appoint suitably qualified and experienced designers to carry out such work and shall indemnify and hold indemnified the *Project Manager* and *Employer* against any claims and actions that may arise out of the temporary *works*.
- The *Contractor* shall be responsible for full compliance with all codes of practice, safety legislation / procedures and requirements of the construction regulations with regards to the temporary *works*.

The *Contractor* is responsible for the overall integration of the design of the *works* with the design of the *Employer* as stated under 2.1

The *Contractor* will also be required to provide samples of paint colours, wall finishes, ceiling finishes and floor finishes prior to procurement or installation of the materials.

Unless expressly stated to be part of the *Employer's* design responsibility as stated in 2.1 *Employer's* design above, and whether or not expressly stated to be part of the *Contractor's* design responsibility under this paragraph 2.2, all residual design responsibility and overall responsibility for the total design solution for the works rests with the *Contractor*.

### **2.3 Procedure for submission and acceptance of *Contractor's* design**

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 and electronic copies to the *Project Manager* at the address stated in the contract data.

All electronic documentation shall be submitted in PDF and native file formats.

Acceptance of documentation by the *Project Manager* will, under no circumstances relieve the *Contractor* of his 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's* review label, is scanned and the copy shall be returned to the *Contractor* under cover of the project's note for revision or re-submittal as instructed.

The *Contractor* shall allow the *Project Manager* two weeks to review and respond to the *Contractor's* submission of their documentation, i.e. from time of receipt by the *Project Manager* to the time of despatch. However, work shall proceed without delay in the event

of the late return of documentation by the *Project Manager* subject to the *Contractor* giving prior notification in this regard.

On receipt of the reviewed documentation, the *Contractor* shall make any notifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within two 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 working days of receipt of the marked-up document, In compliance with NEC 3 core clause 21.2.

## **2.4 Review and Acceptance of *Contractor* Documentation**

The *Contractor* submits documentation as the '*Works Information*' requires, to the *Project Manager* for review and acceptance.

In undertaking the '*Works*' (including all incidental services required), the Supplier shall conform and adhere to the requirements of the '*Contractor* Document Submittal Requirements' Standard included in Annexure (Refer DOC-STD-0001).

## **2.5 Other requirements of the *Contractor's* design**

The *Contractor* shall, where applicable, comply with all the design requirements including the requirements for as-built drawings, operating manuals and maintenance schedules as set out in the details specifications requirements contained in Annexure to this Tender document.

## **2.6 Use of *Contractor's* design**

The *Contractor* grants the *Employer* a licence to use the copyright in all design data presented to the *Employer* in relation to the *works* for any purpose in connection with the construction, re-construction, refurbishment, repair, maintenance and extension of the *works* with such licence being capable of transfer to any third party without the consent of the *Contractor* as per NEC3 core clause 22.1

The *Contractor* vests in the *Employer* full title and guarantee in the intellectual property and copyright in the design data, created in relation to the *works*

## **2.7 Design of Equipment**

The *Contractor* submits his design details for the following categories of his proposed principal Equipment to the *Project Manager* for his information only:

The *Contractor* ensures that his equipment is safe and that it complies fully with the applicable statutory requirements including the relevant provisions of the construction regulations in compliance with NEC3 core clause 23.1 and OHS Act of 1993

## **2.8 Equipment required to be included in the *works***

None

## **2.9 As-built drawings, operating manuals and maintenance schedules**

The *Contractor* provides the following as built / final documentation:

Building *works* as-built

Civil *works* as-built

Structural *works* as-built

Electrical *works* as-built, manuals and maintenance schedules

Mechanical *works* as-built, manuals and maintenance schedules

In undertaking the *works* (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* document submittal requirements standard.

### **Installation, Maintenance and Operating Manuals and Data Books**

- The *Contractor* provides manuals in an A4 hard covered, red, grease and waterproof binder, using two 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, e-mail addresses and reference numbers of all sub-*Contractors* is 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 typical example of what the binder/files shall be marked with on the spine and the front cover is as follows:
  - Project Name
  - Manual Tittle, e.g installation, maintenance and operating manual
  - Title
  - Manual numbering (e.g. Volume 1 of 2)
  - Contract number
  - *Contractor* name
- The required number of copies of all A-built/Final/Data packs shall be:
  - 3x hard copies (Full size)
  - x PDF
  - x Native formats

### **3 Construction**

#### **3.1 Temporary *works*, Site services & construction constraints**

Prospective *Contractors* shall visit the site of the proposed *works* and acquaint themselves with the nature of the *works*, the condition under which the work is to be performed, the means of access to the site, and with all matters that may influence or affect the contract.

*Contractors* shall be deemed to have allowed in their tender for any additional cost to be involved due to the foregoing, as no claims for any extras in connection with the position or nature of the work will be entertained.

#### **3.2 *Employer's* Site entry and security control, permits, and Site regulations**

*Contractor* complies with the following requirements of the *Employer*:

- The 45 Bay Terrace Building is positioned outside of the port boundry in the Point area of the eThekweni Municipality CBD, with the city's traffic flow that should not be affected.
- The *Contractor* shall ensure the safe passage of traffic to and around the site at all times. This shall entail the provision of flagmen, protective barriers, signs, etc for protection, direction and control of traffic.
- Access to the site will be along the west bound of Bay Terrace Road and the *Contractor* is to plan for traffic peak hour when accessing the site. The *Contractor* shall take every reasonable precaution to prevent damage to any roads or entrances used to access the site and shall restrict loads to avoid damages to the entrances to both sites.
- The *Contractor* shall obtain the necessary the necessary entry permits for all his/her employees in accordance with TNPA access control requirements. All costs incurred in providing construction personnel with ID cards and access permits shall be borne by the *Contractor*. Access permits shall be made by the *Contractor* to a standard that is acceptable to the *Project Manager* and shall include at least the following information:
  - Company name and logo
  - Employees' name and ID Number
  - Date of issue and period of validity
  - Company details
  - Contact details
- The cost of maintaining access cards for the people working on site is all to the *Contractor's* account.
- Areas for establishment of the *Contractor's* construction camp will be made available to the *Contractor*, free of charge. This site will be indicated to the *Contractor* at the tenderer's site inspection. The occupation and the use of this portion of site by the *Contractor* for construction camp will be subject to the following conditions:
  - The *Employer* is indemnified in all respects through the occupation and use of this portion of land including any claims from the third parties.
  - The allocated area may be used for offices, stores, and any other engineering work that may be required subject to prior approval of the *Project Manager*



- The *Contractor* shall ensure that the campsite has suitable security fencing and the necessary access gates and control.
- The campsite shall be clearly sign posted as being a construction camp and be compliant with the relevant prevailing safety regulations and restrictions that might be in place until the *Contractor* has de-established on site and this has been approved by the *Project Manager* or his duly appointed representative.
- The housing of labour on site is not permitted except for security personnel if required.
- The *Contractor* to provide chemical toilets for his/her employees subject to approval by the *Project Manager*. These toilets are to be services on a regular basis.
- These toilets should not be used for washing or preparation of any builder's tools/work, food preparation and cooking.
- A stipulated route for access to the site will be pointed out to the *Contractor* at the site inspection.
- The *Contractor's* employees will not be permitted to wander in the operational areas.

### **3.3 Restrictions to access on Site, roads, walkways and barricades**

The 45 Bay Terrace Building is occupied by TNPA employees and other stakeholders, the *Contractor* will be required to organise the work in such a manner so as to cause the least possible inconvenience to the stakeholders, the public and the property owners adjacent to or affected by the work included in this contract.

In all dealings with the public, the *Contractor* shall bear in mind their right to enjoy the use of the roads and services and access to their properties and that the *Employer* desires to interfere as little as possible with these rights

At all points of contact with the public, the *Contractor* and his/her staff are requested to handle discussions and disputes with deliberate courtesy and understanding.

The *Contractor* is specifically excluded from entering the *Employer's* operational areas which are adjacent to the site and working areas. The *Contractor* plans and organises his working such a manner so as to cause the least possible disruption to the *Employer's* operations.

Cognisance must be taken that the adjacent areas are fully operational facilities, and the *Contractor* is to note that the site area forms part of a working port and eThekweni city's environment.

The *Contractor* ensures that the safe passage of *Contractor's* traffic to and around the site and working areas at all times, this includes providing flagmen, protective barriers, signage, etc for protection, direction and control traffic

The *Contractor* ensures that any of his staff, labour and equipment moving outside of his allocated site and working areas does not obstruct the operations of the buildings. To this end, access routes are allocated and co-ordinated by the *Project Manager*.

The *Contractor* ensures that all his construction staff, labour and equipment remain within allocated construction area.

All *Contractor's* staff and labour working in the buildings, must comply with TNPA operational safety requirements and are equipped with all necessary PPE and high visibility.

### **3.4 The *Contractor* complies with the following requirements of the *Employer*:**

ID access cards which will be provided by the *Employer* to the relevant employees of the *Contractor* for site access.

### **3.5 People restrictions on Site; hours of work, conduct and records:**

The working hours shall be in accordance with the requirements and the department of Labour. This information related to working hours shall be supplied by the *Project Manager* prior to commencement of the project.

*Contractor's* staff shall be confined to the construction sites and defined access routes and shall not be allowed to walk in other operational areas. Walking anywhere, especially in prohibited areas, except where authorised by the *Project Manager* and on routes designated by the *Project Manager*, is not permitted and any person found contravening this will be subject to disciplinary action.

It is very important that the *Contractor* keeps records of his staff on site, including those of their sub-*Contractors* which the *Project Manager* shall have access to at any time.

**3.6 The *Contractor* complies with the following hours of work for his people (including Sub-*Contractors*) employed on the Site:**

The *Contractor* specifies normal working hours per day, which shall not exceed nine (9) hours per day, and five (5) working days per week

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.

**3.7 Health and safety facilities on Site**

The provision of security for the *Contractors'* site establishment shall be their own responsibility.

Suitable temporary fencing, lighting and barricading shall be maintained for the duration of the contract to ensure the security requirements are met.

Both the "Factories", Machinery and Building work Act (Act 22 of 1941) and the "Machinery and Occupational Act (Act 6 of 1983)", whenever they appear, will be substituted by the "Occupational Health and Safety Act (Act 85 of 1993)"

The Safety of the entire site shall be the responsibility of the *Contractor* and as such precaution against injury and loss of life, shall be taken where open excavations and other uncompleted *works* are present.

A specific requirement of the *Employer* for Work within Port boundaries, is that all *Contractor's* temporary accommodation is to be securely tied down immediately after arrival on site.

Reference should also be made to the health and safety specifications

The *Contractor* complies with the requirements stated under paragraph 2.3 of C3.1 *Employer's Works* Information.

**3.8 Environmental controls, fauna & flora, dealing with objects of historical interest**

All precautions must be exercised by the *Contractor* to minimise and eradicate environmental pollution during the execution of the *works*

The *Contractor* complies with the CEMP, SES and PES in the construction of the *works*, all as described under paragraph 2.4 of C3.1 *Employer's Works* Information.

### **3.9 Title to Materials from demolition and excavation**

The *Employer* has ownership to all materials arising from any excavations in the performance of the *works* such as:

- Any materials arising from excavations or demolition, if such material is to be used and re- incorporated into the new or future *works* and is required for the completion of the *works*, as specified on the drawings, in the bill of quantities or pricing instructions.
- Any artifacts of historical or cultural value
- Title to such materials, remains with the *Employer*
- The *Project Manager* shall instruct the *Contractor* how to label, mark, set aside and/or dispose of such materials for the benefit of the *Employer* in accordance with NEC 3 core clause 73.1

### **3.10 The *Contractor* has title to all Materials arising from excavation and demolition in the performance of the *works* with the exception of:**

- Underground services and cables that are still in use.

### **3.11 Publicity and progress photographs**

- The *Contractor* shall obtain the permission and approval of the *Employer* before erecting any notice boards or using the details of the contract in any advertising media
- 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

### **3.12 *Contractor's* Equipment**

- All plant used by the *Contractor* on site shall be properly maintained and operated. All vehicles on public roads shall be roadworthy, with the necessary

licences and safety requirements. A checklist /register shall be implemented which will list the operator's qualifications and medical records.

- All equipment to be supplied by the *Contractor* will comply with relevant standard specifications
- Any tools, test equipment and devices needed for installation, testing and commissioning shall be provided by the *Contractors*.
- The *Contractor* keeps daily records of his Equipment used on Site and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the *Project Manager* at all reasonable times.
- The *Contractor* complies with the permissions and restrictions in the use of equipment as required by the *Employer* as per Clause 7.1 in SANS 1200 A

### **3.13 Equipment provided by the *Employer***

No Equipment will be provided by the *Employer*.

### **3.14 Site services and facilities**

The *Contractor* shall make his own arrangements for the connection to the existing supply of services such as electricity, potable water, ablutions, fibre protection, lighting and all other services required for undertaking the *works*.

The *Contractor* shall provide, maintain and finally remove any additional portable latrines of sufficient number required, above the facilities provided by the *Employer*, at his cost. Latrines shall be properly constructed and placed in suitable positions and maintained in a clean and sanitary working condition

The locations of the potential lay down areas will be pointed out at the site clarification meeting. The *Contractor* may establish a site camp anywhere within the boundary of this area. The *Contractor* shall ensure that the area used has a suitable continuous security access gates.

The area may be used for offices, stores, casting yards, repair shops, concrete batch plants and any other engineering work that may be required. All preparation and fencing, etc shall

be done by the *Contractor* and shall be for his account, this includes clearing away and leaving clean and clear at completion.

### **3.15 The *Employer* provides the following facilities for the *Contractor*:**

In compliance with NEC 3 core clause 25.2, the *Employer* will provide the following connections to services for *Contractor's* use:

- A supply point for potable water on site and laydown areas
- A supply point for power, which is only available at the laydown area.
- This shall be pointed out at the site clearing meetings. The supervisor will arrange for the closing of the water valves during the installation of the metered take-off points. All further connection connections from this point on shall be for the *Contractor's* accounts.
- Wherever the *Employer* provides facilities (including, inter alia, temporary power connections, water connections and 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 re-instatement to the land (including all apparatus of the *Employer* and others in, on other land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

### **3.16 Facilities provided by the *Contractor***

The *Contractor* ensures that the site establishment area is compliant with relevant safety regulations and restrictions, is clearly sign posted, and has a suitable security fence, lighting and the necessary access control gates.

The *Contractor* to ensure that they have a back-up power to avoid delays caused by load shedding

All costs for preparation of the site establishment area are for the *Contractor's* account

The *Contractor* submits details of the layout of his site to the *Project Manager* for acceptance

The *Contractor* installs a metering device, accepted by the *Project Manager*, immediately downstream at each of the *Employer's* connections from where he draws services. The *Contractor* provides the *Project Manager* details of his monthly consumption of potable water and power.

The *Contractor* is responsible for their own connection to the *Employer's* services and for the reticulation of his services from the connection point. The cost of meters, connections, reticulation and all other usage costs associated with the provision of services are for the *Contractor's* account.

The *Contractor* Provides the *Project Manager* with a "Certificate of Compliance" (COC), by an "Accredited" person as defined by the OHS Act, in respect of his construction power electrical installation. The *Project Manager* only makes construction power available upon receipt of the COC

The Supervisor (or their nominated representative) conducts routine inspections of the *Contractor's* construction power reticulation and power tools. If found to be unsafe and / or non-compliant with statutory requirements, the electrical power supply is disconnected until the *Contractor* rectifies all defaults.

The *Contractor* provides, at his cost, a sufficient number of toilets and maintains them in a clean and working condition

The *Contractor* provides temporary lighting and fencing around every section occupied by him during the phased construction of the *works*

Such fencing demarcates and secures the construction area. The fencing is erected before any work starts and is removed only upon completion of the work in that area.

The *Contractor* includes, for all costs for such lighting and fencing, including access control into and out of these restricted areas.

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, etc, within the working areas, then the *Contractor* makes good and provides full reinstatement of 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.

Upon completion, and within one month of the date of acceptance of the *works*, the *Contractor* completely removes from the site and working areas, all his equipment, including the foundations of any structures, stores, office accommodation or any other asset belonging to him, and leaves the site and working areas in a tidy condition to the satisfaction of the *Project Manager*.

No Excess discarded materials or equipment may be buried or dumped within the port boundary.

Demolition of all temporary structures, surfaces, etc shall be first approved by the *Project Manager* prior to the work being carried out.

The *Employer* does not provide any security for the site and working areas. The *Contractor* provides same and indemnifies and holds indemnified the *Project Manager* and *Employer* against any claims and actions that may arise out of site working area security

No housing is available for the *Contractor's* employees. The *Contractor* makes his own arrangements to house his employees and transports them to site in a closed vehicle specifically designed for passenger transport (bus or similar) accepted by the *Project Manager*

Wherever the *Employer* provides facilities for the *Contractor's* use 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*.

### **3.17 The *Contractor* provides the following facilities for the *Project Manager* and Supervisor**

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* as stated under 5.1.11 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*.

### **3.18 Existing premises, inspection of adjoining properties and checking work of Others**

The *Contractor* will be held responsible for any damage to the existing structure and surfacing caused by the *Contractor* during the execution of this contract, fair wear and tear excluded, and shall repair it to the satisfaction of the Supervisor on conclusion of the *works*.

For this purpose, a joint inspection with the Supervisor will be carried out prior to occupation of the sites and any existing damage noted.

The *Contractor* is required to forward a photographic report following the inspection to the *Project Manager* for record purposes.

The *Contractor* inspects and surveys the following [buildings / premises / facilities] adjacent to the Site in accordance with agents of the *Employer* and in conjunction with the *Project Manager*.

The *Contractor* inspects the work of existing structures with which the *works* interfaces in conjunction with the *Project Manager*.

### **3.19 Survey control and setting out of the works**

The *Contractor* is to bring his own control on sites to undertake all the setting out of the *works* that may be necessary.

The *Employer* provides the following information and survey controls for the *Contractor*:

- Survey control points for the setting out of the *works*.

The *Contractor* will be responsible for the setting out of the *works*.

The *Contractor* validates the information provided by the *Project Manager* and records all existing and final levels on a drawing and presents this to the *Project Manager* for acceptance.

Where there is a possibility of damage to adjacent property, that a full inventory (and potentially surveys) should be undertaken with the *Contractor*, as this would have a bearing on any subsequent third-party action and the Parties risks under the ECC Clauses 80.1 and 81.1.

### **3.20 Excavations and associated water control**

Where applicable, the *Contractor* protects all excavations against any water ingress whether by seepage, rains, storms, floods or any other means

Where applicable, the *Contractor* immediately removes any water found in the excavation by pumping and/or bailing and provides all necessary equipment to do so. Water is cleared in such a way that it cannot seep or flow back into the excavations.

Possibility of Asbestos /Hydrocarbon contamination in excavations

The *Contractor* exercises due care and attention in carrying out any excavation or bulk earthworks as there is a probability of uncovering asbestos contaminated material during these operations.

The *Contractor* ensures that his staff and labour are equipped with necessary PPE and are trained to recognise asbestos contamination.

On encountering asbestos contamination, the *Contractor* immediately stops all work in the affected area, inform the Supervisor and secures the area.

The *Contractor* arranges for a specialist waste disposal *Contractor* to collect, bag, remove and dispose the contaminated material from the excavation or bulk earthworks.

The *Contractor* continues with the excavation or bulk earthworks on receipt of a written instruction from the Supervisor.

The *Contractor* complies with the following requirements

- With the execution of *works* relating to deep foundations and controlling water from excavations
- Underground services, other existing services, cable and pipe trenches and covers
- The *Contractor* is required to liaise with the *Project Manager* and establish as accurately as possible, the location of the various existing services situated within the *works* area and record all such information on a suitable "marked-up" drawing for reference at all times.
- In addition to the above, the *Contractor* shall consult the *Project Manager* prior to undertaking any excavation work. The *Contractor* must thereafter exercise due care and attention in carrying out the agreed excavation work as may be directed by the *Project Manager* to avoid damage or disruption to existing services. Only hand excavation will be allowed.
- The *Contractor* shall be liable for all claims arising from any damage caused by such excavation if the *Contractor* fails to exercise the requisite care and attention in carrying out the excavation.
- The cost of locating and protecting, if necessary, services shall be included in the rates for the services intersecting and adjoining trenches. A group of cables intersecting or adjoining a trench will be regarded as one service. The existing services shall be protected when excavating for surfacing. The costs of protecting these services shall be included in the rates for excavation and compaction
- The existing services on the site of the *works* are depicted on drawings and serve only as a guide to the *Contractor*. These drawings will illustrate the positions of services as accurately as possible based on existing records. However, it is possible that there are services existing, which are not reflected and may affect the *works*.
- The *Contractor* should note that, the existing underground asbestos potable waterline is not shown on the drawings.
- He *Contractor* shall take all the necessary steps to ascertain the location of existing services before commencing any section of the *works* and shall

exercise greatest care when working in the vicinity of such services. Hand tools shall be initially used for exposing services where necessary before allowing the uncontrolled use of picks and machines to excavate.

- Should it be necessary to adjust the line, level and / or position of any service not catered for in the contract to enable the *works* to proceed, the *Contractor* shall on no account effect such adjustments, without the prior approval of the *Project Manager*.
- The *Contractor* shall take all necessary steps to protect any existing *works* whatsoever against damage which may arise as a result of his operations on site. The *Contractor* shall bear the cost of the repair of damage to any service, the possible existence of which could reasonably have been ascertained by him in good time.
- Where the *Contractor* is responsible for the cost of repairs carried out by a service authority, the *Contractor* will be billed directly by the service authority concerned.
- Where the *Contractor* encounters existing underground services/existing services/ cables/ pipe trenches, the *Contractor* is to notify the *Project Manager* and Supervisor
- Contractor to ensure there is control of noise, dust, water and waste management on site for the duration of the contract.
- Before moving equipment onto the site and working areas and commencing operations, the *Contractor* submits his proposed methods of construction which will demonstrate the measures taken to avoid and /or reduce any nuisance arising from dust, noise and vibration for acceptance by the *Project Manager*. Geotextile silt curtaining should be used at the backfill sites to reduce suspended sediments returning to the harbour

The *Contractor* complies with the following:

- The fullest collaboration between the *Contractor*, *Project Manager*, the Supervisor and all other parties is essential with regard to the working of the port. The commercial activities shall take priority over the construction activities. The *Contractor* shall ensure that all equipment remains inside the

allocated construction area. The *Contractor* shall remove any such equipment outside his allocated construction area that obstructs commercial operations at his own expense. No claims for standing time or extension of time for removal of such equipment will be payable.

- Access to the site will traverse through operational areas. The *Contractor* shall co-operate with other common users of this portion of access.
- The *Contractor* shall not commit or permit any act that may interfere with the performance of work by any of the other parties.
- The success of the project depends on the effective co-operation of all parties on site, and if necessary, it may be required to discuss the programme on a day-to-day basis with the Supervisor to ensure effective co-operation.
- Working with limited access to the site services to ensure vehicular traffic is able to access the site
- Submits method statements which adequately address issues relating to noise, dust, the *Contractor* is to note that in the execution of the *works* there may be

limited access and the *Contractor* is to ensure that the client is able to manage his port activities whilst construction takes place

- Giving notice of work to be covered up
- The *Contractor* notifies the Supervisor in writing of any elements of the *works* which are covered up. This notification is given not less than twenty-four (24) working hours prior to the proposed covering up.
- The *Contractor* notifies the supervisor in writing of the following elements of the *works*:
- All services installed in the ground

### **Sequence of Construction or installation**

The *Contractor* will submit for the *Project Manager's* approval level 4 schedule that outlines the critical schedule information prior commencing with the execution of the work

*Contractor* complies with the following constraints:

- The *Contractor* is to take note that he will not have exclusive use of the entire site during construction due to being an operational area. In this regard, the *Contractor* will be responsible for co-ordinating occupations with industry to

avoid any clashes during construction including making allowances in his tendered programme.

- The *Contractor* is also referred to the site information which lists further constraints regarding the *works*.
- The sequencing of the *works* will be affected by access to certain areas due to operational constraints. In this regard, the *Contractor* may only be allowed access to certain areas of the work in a phased manner.
- The *Contractor* may also be granted limited access to the various areas of the site and as such will need to ensure sufficient resources are available to undertake the *works* accordingly.

### **Port working**

#### Co-operation with other parties

- The fullest collaboration between the *Contractor*, Port management, the supervisor and other parties is essential with regards to the operation of the port. The commercial activities shall take priority over the construction activities. The *Contractor* shall be limited to working at the car park during peak hours.
- The *Contractor* shall ensure that all necessary work permits to perform *works* are obtained on a daily basis. Daily hot work permits would need to be obtained from the TNPA fire department and the associated costs will be for the account of the *Contractor*.
- Access to the sites is adjacent to the operational areas. The *Contractor* shall co-operate with the common users of this portion of access.
- The *Contractor* shall not commit or permit any act that may interfere with the performance of work by any of the other parties.
- Due to the *Contractor* undertaking the *works* in operational area, the *Contractor* shall provide for gas monitoring during construction. The *Contractor* shall provide necessary gas masks and monitors. Daily gas testing shall be undertaken by the *Contractor*. It may be necessary to undertake the gas testing

more than once per day, depending on the location of construction activities and port operation.

- The success of the project depends on the effective co-operation of all parties on site, and if necessary, it may be required to discuss the programme on a day-to-day basis with the Supervisor.

### **Harbour regulations and associated charges**

The *works* are sited within the port boundaries. The *Contractor* and his staff shall observe all port's regulations. Copies of such regulations are obtainable free of charge from the Harbour Master's office.

### **Evacuation procedure**

TNPA Emergency team will activate the emergency alarm

- All employees and visitors must evacuate the site as fast as possible and assemble at the parking lot
- Security/SHEQ officers/Management on duty will contact the security control room (031 361 8507)
- The necessary emergency services will then be contacted by security control room
- All radios will function to keep the employees informed of the incident
- The register of employees in the building as well as the visitor's register and *Contractor's* list of employees will be handed over to SHEQ by security in order to conduct a roll call
- Instructions from the emergency controller must be followed. No one should leave the assembly point until instructed to do so.



### 3.21 Completion, testing, commissioning and correction of Defects

The work to be done by the completion date

On or before the Completion date, the *Contractor* shall have done everything required to provide the *works* except for the work listed below which may be done after the completion date, but in any case, before the dates stated. The *Project Manager* cannot certify completion until all the work except that listed below, has been done and is also free from defects, which would have, in his opinion, prevented the *Employer* from using the *works* and others from doing their work.

The successful *Contractor* shall provide two (2) copies of full operating and maintenance instructions before the installation is accepted by the *Project Manager*.

Item of work	To be completed by
As built drawings, operating manuals and maintenance schedules	Two (2) weeks after completion date
Performance testing of the <i>works</i> in use	Completion date
Close out report and Data books	Completion date

- The *Contractor* is permitted to carry out identified and modified defects as per term and conditions of NEC ECC3, the completion of the *works*.
- No access is required for installation of any necessary equipment before completion is certified. Any required access will be arranged with the appointed *Contractor* by the *Project Manager* or the NEC ECC3 Supervisor
- Should the *Employer* intend to use part of the *works* before Completion is certified, then he is able to do so by following appropriate statements at Contract Data - Part One. The basis upon which use by the *Employer* is permitted but take over is not concurrently certified by the *Project Manager* for such use, is for the reasons stated within the *Works* Information. If the *Employer* does take over the *works* without such specifically stated reasons

being included in the *Works* Information, then the *Contractor* is entitled to a compensation event under ECC Clause 60.1(15).

### **Materials facilities and samples for tests and inspections**

The *Contractor* submits to the Supervisor details to certify that tests and inspections have been carried out on plant and materials by others as detailed in the attached specifications

The *Contractor* provides the facilities that will be made available, and materials and samples in order to perform the tests and inspections as per NEC 3 ECC Clause 40.2

### **Commissioning**

The *Contractor* provides the following commissioning activities to bring the *works* in use in liaison with the *Employer*:

- The *Contractor* shall perform the necessary testing as identified in the detailed *works* information and annexures accompanying this document
- Start – up procedures required to put the *works* into operation

### **Take-over procedures**

The *Contractor* provides the following assistance to the *Employer*:

- Have suitable resources available to ensure that clear indication provided on how to operate the various new equipment installed
- The *Contractor* ensures that the documentation is presented to the *Project Manager* before completion.
- The *Contractor* ensures that the *Project Manager* has a full and accurate dossier of As-built documents that represent the status of the completed *works* (to include Plant within the *works*) to present to the *Employer* and Redlined drawings (mark up all changes)
- The *Contractor* ensures that the *Project Manager* has a full and accurate dossier of maintenance manuals and operating manuals as appropriate at the earlier of take-over of completion.
- Where the *Contractor* has presented maintenance manuals as appropriate to the *Project Manager* at take-over, the *Contractor* modifies and updates as-builts

as necessary prior to completion Please include the above default statements under paragraph 3.2.6 of the *Works* Information.

- Access given by the *Employer* for correction of Defects as described by the NEC3 ECC core clause 43.4

The *Contractor* complies with the following constraints and procedures of the *Employer* where the *Project Manager* arranges access for the *Contractor* after Completion:

- Working in an operational area with high volume of traffic

### **Performance tests after Completion**

Where the *Project Manager* arranges for the *Contractor* after completion, the *Contractor* complies with the following constraints and procedures of the *Employer*:

- Safety, access control and work procedures as determined by the *Employer*
- These may be the same as communicated elsewhere within this *Works* information as at the starting date /access date, or as the *works* are now in use by the *Employer's* occupation of the site, the same may be incrementally or substantially changed and increased post completion
- The *Contractor* complies with the following constraints and procedures of the *Employer* where the *Project Manager* arranges for the access of the *Contractor* after completion:
- Working in an operational area
- Any performance tests after completion of the *works* will be notified to the appointed *Contractor* by the *Project Manager* as per the terms and conditions of the NEC ECC3

## **4 Plant and Materials Standards and Workmanship**

### **4.1 Investigation, Survey and Site Clearance**

The Information (e.g. building positions) indicated on the drawings is issued for information purposes only and the responsibility rests with the *Contractor* to verify the information

provided on site, The *Contractor* shall carry out the following investigations and surveys at the site:

- Verify positions of existing services and structures
- Expose existing connections to fire hydrants and Municipal supply points Insert relevant details

Where the *Works* Information is amended by the *Employer*, then the *Contractor* is entitled to compensation events, as per NEC 3 ECC core clause 60.1(1)

#### **4.2 Building works**

Refer to Annexure A: Building *works*

#### **4.3 Civil Engineering and Structural Works**

Refer to Annexure C: Civil *works* and  
Annexure E: Structural *works*

#### **4.4 Existing services**

- All known services are provided on the drawing, however, due to the lack of adequate as-built records, the *Contractor* will be required to prove services prior to removal. The *Contractor* shall take necessary precautions to ensure that services are not damaged. The existing water supply to the buildings must be shut off at the closest valve to be determined on site, prior to removal of plumbing fittings and demolition.
- As soon as any underground service not shown on the drawings is discovered, it shall be brought to the attention of the Supervisor. The *Contractor* must in collaboration with the Supervisor, ascertain whether or not the service is live. The *Contractor* shall not uplift such service unless he is instructed to do so.

#### **Method statement**

The *Contractor* shall submit a detailed method statement setting out what quality control procedures will be implemented with respect to Quality assurance of the *works*

#### **4.5 Electrical & mechanical engineering works**

Refer to Annexure B: Electrical *works* and  
Annexure D: Mechanical *works*

#### 4.6 Process control and IT works

The *Contractor* will install new cat6 network points for all users, boardrooms throughout the building and each floor to have the cables terminate on cat6 patch panels at the relevant network cabinet in the comms rooms on the respective floors. All cable layouts to be labelled and documented according and necessary patch cables to be also labelled and patched to switches housed in the network cabinet. A full drawing of the cable layout and route to be completed and supplied by the *Contractor*. Server room on ground floor to have lighting, flooring and access control done.

### 5 List Of Drawings

#### 5.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both *Works* Information and Site Information.

#### Civil *works* drawing

DRAWING DESCRIPTION	DRAWING NUMBER
Electrical manhole details, mini sub manhole types E1 & E6	XDNE037-1-200-C-DE-001-01-OA

#### Structural *works* drawing

DRAWING DESCRIPTION	DRAWING NUMBER
Concrete Plinth for Generator and Foundation Layouts for Brick Walls	XDN.E.037-1-200-S-LA-0002-01

#### Electrical *works* Drawings

DRAWING DESCRIPTION	DRAWING NUMBER
Ground Floor Lighting Layout	XDN.E.037-1-200-E-LA-0001-01-.2
Ground Floor Power Layout	XDN.E.037-1-200-E-LA-0002-01-.2
Main Distribution Board Layout DB-M	XDN.E.037-1-200-E-LA-0003-01-.2
Ground Floor Mezzanine Lighting Layout	XDN.E.037-1-200-E-LA-0004-01-.2
Ground Floor Mezzanine Power Layout	XDN.E.037-1-200-E-LA-0005-01-.2

Distribution Board Layout DB-A and DB.B	XDN.E.037-1-200-E-LA-0006-01-.2
Supply Power and Cable Route Layout	XDN.E.037-1-200-E-LA-0007-01-.2
First Floor Lighting Layout	XDN.E.037-1-200-E-LA-1001-01-.2
First Floor Power Layout	XDN.E.037-1-200-E-LA-1002-01-.2
Distribution Board Layout DB-C	XDN.E.037-1-200-E-LA-1003-01-.2
Second Floor Lighting Layout	XDN.E.037-1-200-E-LA-2001-01-.2
Second Floor Power Layout	XDN.E.037-1-200-E-LA-2002-01-.2
Distribution Board Layout DB-D	XDN.E.037-1-200-E-LA-2003-01-.2
Third Floor Lighting Layout	XDN.E.037-1-200-E-LA-3001-01-.2
Third Floor Power Layout	XDN.E.037-1-200-E-LA-3002-01-.2
Distribution Board Layout DB-E	XDN.E.037-1-200-E-LA-3003-01-.2

### Mechanical Drawings

DRAWING DESCRIPTION	DRAWING NUMBER
Bay Terrace HVAC Rev 13-GROUND FLOOR HVAC	XDN.E.037-1-500-M-LA-0001-01_OA
Bay Terrace HVAC Rev 13-FIRST FLOOR HVAC	XDN.E.037-1-500-M-LA-0002-01_OA
Bay Terrace HVAC Rev 13-SECOND FLOOR HVAC	XDN.E.037-1-500-M-LA-0003-01_OA
Bay Terrace HVAC Rev 13-THIRD FLOOR HVAC	XDN.E.037-1-500-M-LA-0004-01_OA

### Building *works* drawings

DRAWING DESCRIPTION	DRAWING NUMBER
Kitchen layouts 01	XDN.E.0037-1-200-A-LA-0003-.2-01
Kitchen layouts 02	XDN.E.0037-1-100-A-LA-0001-.2-00
Kitchen layouts 03	XDN.E.0037-1-300-A-LA-0003-.2-00
First floor	XDN.E.0037-1-200-A-GA-1001-01-.3
Floor finishes schedule and demolition	XDN.E.0037-1-200-A-LA-0001-01-.3
Generator	XDN.E.0037-1-200-A-LA-0002-01-.3
Ground floor	XDN.E.0037-1-200-A-GA-0001-01-.3
Site plan	XDN.E.0037-1-200-A-GA-0000-01-.2
Third floor	XDN.E.0037-1-200-A-GA-3001-01-.3

## SECTION 2

### 6 Management and start up

#### 6.1 Management meetings

In compliance with NEC 3 ECC core clause 16.2, Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Every two weeks	On site	<i>Project Manager</i> , Supervisor, <i>Contractor</i> and appropriate key persons
Overall contract progress and feedback	Every two weeks	On Site	<i>Employer</i> , <i>Project Manager</i> , Supervisor, <i>Contractor</i> and appropriate key persons
SHE Meetings	Every two weeks	On site	<i>Project Manager</i> , Supervisor, <i>Contractor</i> and appropriate key persons
Technical meetings	Every two weeks	On site	Appointed and appropriate key persons
Safety, Health, Environmental audits	Monthly per discipline	On site	TNPA SHE department and appointed appropriate key persons from the Contactor
Stakeholder Liaison meeting	Every two weeks	On site	<i>Project Manager</i> , Supervisor, <i>Contractor</i> and appropriate key persons

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 are to be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting.

All meetings are to be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register are not to be used for the purpose of confirming actions or instructions under the contract as these are to be done separately by the person identified in the conditions of contract to carry out such actions or instructions.

## 6.2 Documentation Control

In undertaking the *works* all documentation requirements for the *works* shall be dealt with in accordance with document DOC-STD-0001\_Rev03. The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Contractor*.

The *Contractor* documentation "Starter kit", as contemplated in DOC-STD-0001\_Rev03, will be issued at the kick-off meeting following award.

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 No, Contract No, 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*.

All contract correspondence is issued through document control. Electronic submissions are permissible only for URGENT communication, PDF and native where necessary. The *Contractor* shall apply "wet signatures" to the original documentation before scanning the single sided, signed original prior to formal submission to the *Project Manager*.

Electronic files submitted to the *Project Manager* 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* is to ensure that the latest versions of the required application software and a suitable 'IT' Infrastructure are in place to support the electronic transmission of documentation. The *Contractor* shall maintain electronic format of ALL project documentation for the duration of the contract.

Hardcopy original documents must be delivered within 24 hours of electronic submission of same to the project site office document control department.

All documentation and data submitted electronic, and hardcopy must conform to the Project Standards and Quality requirements in terms of numbering, uniqueness, quality, accuracy, format, completeness and currency of information. Documentation not meeting the Project Standards and Quality requirements will be cause for rejection and shall be 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.



The *Contractor* shall be responsible to ensure that proper safety measures are in place to protect project documentation temporarily stored on site against theft, fire, flooding, or excessive dampness.

All drawings supplied shall comply with the CAD Standards, i.e. ENG-STD-0001.

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 timeframe and quality requirements are met as outlined in the specified standards prior to awarding sub-orders.

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)

#### **6.2.1 Procedure for Submission and Acceptance of Consultant's Documentation**

The *Contractor's* documentation shall be issued to the *Project Manager* under cover of the *Contractor's* Transmittal Note indicating all *Contractor's* Contract references (i.e. Project No, Contract No, 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 his 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, is scanned and the original document with comments shall be returned to the *Contractor* under cover of the project's Transmittal Note for revision or re-submittal as instructed and to be included in the master copy data file where applicable.

The *Contractor* shall allow the *Project Manager* 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 of the hardcopy to the document control office to the time of despatch. The *Contractor* does not proceed with the relevant work until the *Project Manager* has accepted his design.

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 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 the time frames discussed with the *Project Manager*

In undertaking the *works* all drawing requirements for the *works* shall be dealt with in accordance with document ENG-STD-0001.

### **6.2.2 As-built Drawings, Operating Manuals and Data Packs**

The *Contractor* provides the following:

- Red Line Drawings

All as-built red line drawings must be signed off by the *Contractor's* responsible person before issue to *Project Manager* for acceptance.

- Installation, Maintenance and Operating Manuals and Data Books

The *Contractor* provides manuals in an A4 hard cover, grease and waterproof binder, using 2 ring type binders.

Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.

The manuals are well indexed and user friendly and must include a summarized Table of Contents.

The index for data packs must be submitted to the *Project Manager* for acceptance at the beginning of the project to enable the *Contractor* to maintain and update the file on a continuous basis throughout the project lifecycle. The *Contractor* submits the draft Table of Contents to the *Project Manager* for acceptance prior to the compilation and official submittal of the manuals and data books.

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* is 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*.

All electronic copies (pdf.) of Data Packs to be properly indexed and bookmarked. All pages that make up the data book or manual must be sequentially numbered.

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
- FBS No. and Title
- Manual Numbering (e.g. Volume 1 of 2, etc.)
- Contract Number
- *Contractor* Name

Unless otherwise stated, the required number of copies of all final Data Packs shall be:

- 3 x hard copies (Full size)
- 3 x CD in Adobe Acrobat (.pdf) formats

### **6.3 Safety risk management**

6.3.1 The *Contractor* complies with the following requirements: all health and safety matters associated with the *works* will be dealt with in accordance with Occupational Health & Safety Act, 1993 (Act No. 85 of 1993) and the Project Specific Health and Safety Specifications contained in Annexure B to this *Works* Information.

6.3.2 The *Contractor* is to implement Occupational Health and Safety measures to reduce and eliminate the escalation of COVID-19 infections in workplaces as set out in the Schedule adopted by the Minister of Employment and Labour, in terms of Regulation 10(8) of the

- National Disaster Regulations (Act No. 57 of 2002) and comply to all COVID-19 related guidelines issued by the government in this regard.
- 6.3.3 The *Contractor* shall prepare, implement, and administer the *Contractor's* Health and Safety Management Plan (CHSMP). The Health and Safety Management Plan must provide a systematic method of managing hazards and implementing control measures.
- 6.3.4 The *Contractor* must prepare and submit the Occupational Health & Safety file to the *Project Manager* for acceptance. The safety plan will then be submitted to the TNPA appointed Health and Safety Agent for approval before start of the *works*.
- 6.3.5 The Principal *Contractor* ensures that its *Contractors* comply with the CHSMP and relevant statutory requirements of the Occupational Health & Safety Act, 1993 (Act No. 85 of 1993), and ensure that HAZCON study is arranged with Client before commencement of construction work. The *Contractor* shall ensure that all role players required for HAZCON study are informed on time and PHA-PRO software is utilised for the *workshop*.
- 6.3.6 The roles and responsibilities of the various personnel acting on behalf of the *Project Manager* with respect to the SMP and health and safety issues are as stated in the paragraphs following:
- 6.3.7 The Construction Manager (CM) is responsible for health and safety on the Site and Working Areas and reports to the *Project Manager*. The Principal *Contractor* must ensure that the appointed Construction Manager is competent and registered with SACPCMP as a Pr. Construction Manager. The CM must ensure that the Health and Safety Manager is appointed for the project, depending on the Construction Management Plan and ensure that Health and Safety Officer per team is appointed and both are registered with SACPCMP. The Principal *Contractor* ensures that its *Contractors* comply with the requirements of the SMP.
- 6.3.8 The CM specific tasks are:
- Implement the *Employers* safety management system.
  - Monitor *Contractor's* compliance to the CHSMP.
  - Ensure risk is at an acceptable level
  - Ensure the *Contractor's* workforce and Construction Management Team is competent.
- 6.3.9 The PSSM is responsible for ensuring that the *Contractor* complies with the SMP. The PSSM acts on behalf of the *Project Manager*.
- 6.3.10 The PSSM specific tasks are:

- a) Ensure that the overall project safety requirements are complied with
- b) Provide guidance on safety related issues arising during the execution of the project

6.3.11 The *Contractor* makes the SMP available to its employees and Sub-*Contractors* in the language of this contract.

#### 6.4 Environmental constraints and management

**NB: *Contractors* must note that some of the specifications referred herein were compiled by the previous Transnet Group Capital (TGC) and this name may remain on some of the Annexure specification documents. While the project is now managed by TNPA, the TGC specifications are still applicable and implemented.**

6.4.1 All work is to be conducted in accordance with the principles of the National Environmental Management Act, Act no 107 of 1998 but not limited to other applicable regulations, municipal bylaws e.g. schedule trade and occupations bylaws as well as the accepted environmental good practices.

6.4.2 All required licences and permits must be obtained at their own cost by the *Contractor* from relevant authorities prior to the commencement of project activities where applicable.

6.4.3 The following documents, included as Annexures of the *Works* Information, provide the minimum acceptable standards that shall be adhered to:

- Transnet Integrated Management Systems (TIMS) Commitment Statement –  
IMS-GRP-GDL-002-1
- Construction Environmental Management Plan (ENV-STD-001 Rev 04).
- Standard Environmental Specification (ENV-STD-002 Rev 04).
- Standard Environmental Maintenance Management Programme for Maintenance  
*Works*
- COVID 19 Post Lockdown Construction Site Health and Safety Guidelines
- COVID-19 Health Care Waste Management on Construction sites TGC-IMS-ENV-  
SOP-009.001
- Stormwater Management Plan

The *Contractor* must also comply with the following documents:

- TNPA list of approved waste services *Contractors*
- TNPA Asbestos Management Plan
- EThekweni Municipality Schedule Trades and Occupations Bylaws
- EThekweni Municipality Interim Code relating to fire prevention and Flammable liquids and substances

6.4.4 The *Contractor* performs the *works* and all construction activities within the Site and Working Areas having due regard to the environment and to environmental management practices as outlined in section 6.4.3 above.

6.4.5 The CEM describes the main roles and responsibilities of the project team with respect to Environmental Management.

6.4.6 The SES describes the minimal acceptable standard for environmental management for a range of environmental aspects commonly encountered on construction projects and sets environmental objectives and targets, which the *Contractor* observes and complies.

6.4.7 The Project Environmental Specification (PES) describes more particularly the environmental standards applicable to the *works*, the Site and the Working Areas and sets out variance (including additions) to the SES. The PES may require higher minimal standards than those described in the SES as may be required by the relevant environmental authorities but may not necessarily be limited to: Environmental Approvals (e.g. Environmental Authorisations, Water Use Licenses, Waste Management Licences, etc.); Environmental Management Programmes/Plans.

6.4.8 The above requirements shall be applicable to the main *Contractor*, its Sub*Contractors*, Service providers and Suppliers. The *Contractor* must comply with all the requirements of the CEMP, SES and PES as mentioned in section 6.4.3 above.

The *Contractor* must sign the Declaration of Understanding as a commitment to abide with Transnet's Environmental Governance Framework and any applicable Project Environmental Specification issued by the authorities.

6.4.9 The *Contractor* Must make provision for sufficient environmental budget to meet all the project environmental requirements for the duration of the contract.

6.4.10 The *Contractor* must strictly appoint a fulltime Environmental Officer (EO) to monitor and manage compliance to Environmental Specification and all applicable environmental legislation. The *Contractor* EO must be 100% allocated to the project and must be employed for the duration of the contract. Sharing of an EO resource between projects

is not allowed. The EO must as a minimum have at least 3 years work experience in environmental management within the construction environment.

6.4.11 The roles and responsibilities of the *Contractor's* EO are stated in CEMP. The *Contractor's* EO must be 100% full time on site during working hours.

6.4.12 The *Contractor* will be required to submit an environmental file to TNPA post tender award. Detailed requirements such as Audits dates, deadlines etc. from the *Employer* will be made known on award of the contract. Site access certificate will not be granted until the Environmental file has been approved by the *Employer's* Environmental representatives.

6.4.13 The overarching obligations of the *Contractor* under the CEMP before construction activities commence on the Site and/or Working Areas is to provide environmental method statements for all construction operations at the Site and/or Working Area by the *Contractor* and where requested by the CM:

These include, but are not limited to, the following where applicable:

- a) Establishment of construction lay down area
- b) Hazardous and non-hazardous solid waste management
- c) Storm water management
- d) Contaminated water management
- e) Prevention of marine pollution
- f) Hydrocarbon spills
- g) Diesel tanks and refuelling procedures
- h) Dust control
- i) Spoil dumping
- j) Sourcing, excavating, transporting and dumping of fill material
- k) Noise and vibration control
- l) Removal of rare, endemic or endangered species
- m) Removal and stockpiling of topsoil
- n) Rodent and pest control
- o) Environmental awareness training
- p) Site division

- q) Emergency procedures for environmental incidents
- r) *Contractor's* SHE Officer
- s) Closure of construction laydown area

6.4.14 The *Contractor* shall identify the kinds of environmental impacts that will occur as a result of their activities and accordingly prepare separate method statements describing how each of these impacts will be prevented or managed so that the standards set out in the SES document are achieved. The method statements will be prepared in accordance with the requirements set out in the CEMP. These method statements shall form part of the environmental file. The *Contractor* shall ensure that his management, foremen and the general workforce, as well as all suppliers and visitors to Site have attended the Environmental Induction Programme prior to commencing any work on Site. If new personnel commence work on the Site during construction, the *Contractor* shall ensure that these personnel undergo the Environmental Induction Programme and are made aware of the environmental specifications on Site.

Method statements need to be compiled by the *Contractor* throughout the Construction and Commissioning phase of the project. These Method Statements must be approved by the TNPA Construction Manager and TNPA Environmental Manager or Environmental Officer. Approval must at least be two weeks prior to the proposed commencement of the activity. Emergency construction activity method statements may also be required. The activities requiring method statements cannot commence if they have not been approved by the TNPA Environmental Manager or Environmental Officer.

Where required, one of the first actions to be undertaken by the *Contractor* shall be to erect and maintain a temporary fence along the boundaries of the Site and Working Areas as applicable, and around any no-go areas identified on the layout plans, to the satisfaction of the *Project Manager*.

6.4.15 During the construction period, the *Contractor* complies with the following:

A copy of the latest versions for both CEMP and SES together with PES shall always be available on Site, and the *Contractor* shall ensure that all the personnel on Site (including *SubContractors* and their staff) as well as suppliers are familiar with and understand the specifications.

Where applicable, the *Contractor* shall provide job-specific training on an ad hoc basis when workers are engaged in activities, which require method statements.



6.4.16 The *Contractor* shall be responsible for rehabilitating and cleaning all areas to the satisfaction of the TNPA Environmental Manager or Environmental Officer as detailed in the SES. Sufficient environmental budget must be allocated to achieve this including all environmental requirements for the project for the duration of the contract.

6.4.17 The *Contractor* must ensure that its Sub*Contractors* comply with the Environmental Specification.

The *Contractor* must appoint the waste removal Service Providers who is licenced to operate within the Ports as provided in the TNPA list of Waste Services *Contractors*.

The *Contractor* or Sub *Contractors* must be in possession of eThekweni Municipality's Schedule Trade and Occupations permit if they are to be engaged in any of the activities contained under eThekweni Municipality Scheduled Trade and Occupations.

## **6.5 Quality assurance requirements**

6.5.1 The *Contractor* shall have, maintain and demonstrate its use to the *Project Manager* (and/or the *Supervisor*) the documented Quality Management System to be used in the performance of the *works*. The *Contractor's* Quality Management System shall conform to International Standard ISO 9001 (or an equivalent standard acceptable to the *Project Manager*) and as such a minimum to the requirements of specification QAL-STD-0001, General Quality requirements for Suppliers and *Contractors* as contained in the Annexure to this *Works* Information.

6.5.2 The *Contractor* submits his Quality Management System documents to the *Project Manager* as part of his programme under ECC Clause 31.2 to include details of:

- Project Quality Plan (PQP) for the contract;
- Quality Control Plans (QCP)
- Quality Policy
- Index of Procedures to be used; and
- A schedule of internal and external audits during the contract

6.5.3 The *Contractor* develops and maintains a comprehensive register of documents that will be generated throughout the contract including all quality related documents as part of its Quality Plan.

6.5.4 The *Contractors* PQP includes or references to the quality plans of the Sub-*Contractors*.

6.5.5 The *Project Manager* indicates those documents required to be submitted for either 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*.

- 6.5.6 The Project Quality Plan means the *Contractor's* statement, which outlines strategy, methodology, resources allocation, QA and Quality Control co-ordination activities to ensure that the *works* meet the standards stated in the *Works Information*. Site Access will not be granted unless the PQP has been accepted by the *Project Manager*.
- 6.5.7 The Quality Control Plans shall identify all inspection, test and verification requirements to meet Contractual obligations, specifications, drawings and related details including destructive, non-destructive testing, witness and hold points. The *Contractor* shall not commence fabrication or manufacture prior to review and acceptance of the applicable Q.C.P.'s by the *Project Manager*.

## **6.6 Programming constraints**

- 6.6.1 The *Contractor's* programme should be in Microsoft project (MsP) or in Primavera software and the programme shall correspond with the *Employer's* objectives as stipulated in the relevant sections of the *Employer's* Scope of Service inclusive of all sheets listed in the Annexures and shall be in line with the overall Scope of Services, specifications and any other documentation as annexed to this contract. A Basis of Programme document shall be prepared by the Consultant in conjunction with the programme.
- 6.6.2 In planning the services, the *Contractor's* shall clearly identify the activities durations and the associated resources.
- 6.6.3 The *Contractor's* programme shall comply with the stipulations of the relevant sections of the *Employer's* Scope of Service, which details the minimum Health & Safety constraints as imposed on the provision of the services.
- 6.6.4 The *Contractor's* programme shall comply with the stipulations of the relevant sections of the *Employer's* Scope of Service, which details the minimum Quality constraints as imposed on the provision of the services.
- 6.6.5 The *Contractor's* programme shall comply with the stipulations of the relevant sections of the *Employer's* Scope of Service, which details the minimum Environmental constraints as imposed on the provision of the services.

- 6.6.6 The *Contractor* includes any reasonable foreseen and unforeseen constraints, assumptions and conditions which may arise in line with the overall scope as outlined and the *Employer's* Scope of Service.
- 6.6.7 The *Contractor* uses the latest version of Microsoft Project/Primavera for his programme submissions, with the use of alternative but similar software package being employed only upon the written approval of the *Employer* or *Employer's* Agent.
- 6.6.8 The *Contractor's* first programme submitted for acceptance shall be developed and decomposed such that it is an accurate and robust forecast of the services to be undertaken. This shall be undertaken during the pre-contract negotiation period and no later than the date stipulated under Contract Data Part One.
- 6.6.9 The *Contractor* shall take due cognizance of the period for reply as stated in the Contract Data.
- 6.6.10 The *Contractor* complies with the *Employer's* dates as stipulated within the Contract Data when he submits his first programme for acceptance and all other subsequent programme submissions.
- 6.6.11 The *Contractor* presents his first programme and all subsequently revised programmes (see NEC3 ECSC Clauses 31.2 and 32.1) in hard copy and soft copy format; with the programme model being a Level 4 project programme.
- 6.6.12 The *Contractor* shows on his programme submitted for acceptance and/or accepted programme and all subsequently revised programmes or programme submissions, showing the critical path or paths and all necessary logic diagrams demonstrating the sequence. The *Contractor* submits programme report information to the *Project Manager* at Bi-weekly intervals in addition to the intervals for submission of revised programmes stated under Contract Data Part One.
- 6.6.13 The *Contractor's* bi-weekly programme narrative report includes:
- Level 4 Project Schedule – showing two separate bars for each task i.e. the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted programme.
  - 3-week Look ahead Schedule - showing two separate bars for each task i.e. the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted programme.
  - Manpower Histogram – reflecting actual, forecasted and planned activities

- S-curves – reflecting the actual percentage complete versus the planned percentage for the overall contract utilising the earned values as calculated by the detailed progress report.

6.6.14 The *Contractor's* programme shows duration of operations in working days as per the stipulated definition of the workdays and hours as in the *Employer's* Scope of Service.

6.6.15 The *Contractor* attends, participates in and makes a meaningful contribution to, planning initiation & set-up meetings held during the pre-contract negotiation period and at weekly

6.6.16 Intervals during the contract period. The *Employer* or *Employer's* Agent shall define the tools, processes, procedures as well as methodologies for calculating, measuring and tracking progress. It is the Consultant's obligation in this regard to employ the aforementioned in the monitoring and management of performance against the performance measurement baseline and measurement of progress.

6.6.17 The *Contractor's* programme shows the following levels:

- Level 1 Master Programme – defines the major operations and interfaces between engineering design, procurement, fabrication and assembly of Plant and Materials, transportation, construction, testing, snagging, commissioning and Completion.
- Level 2 Project Programme – summary programmes 'rolled up' from Level 3 Project Programme described below.
- Level 3 Project Programme – detailed programmes generated to demonstrate all operations identified in the programme from the starting date to Completion.
- Level 4 Project Programme – detailed discipline level programme decomposed to appropriate levels of detail in order to accurately substantiate activity scope and activity duration estimates; developed and maintained by the Consultant relating to all operations identified on the programme representing the daily activities by each discipline, with activities and operations adequately decomposed in order to accurately represent the effort required to execute activity/operation and support accurate duration estimates.

6.6.18 A Basis of Programme document shall be prepared by the Consultant at intervals as approved by the *Employer/ Employer's* Agent accompanying the latest programme

submitted for acceptance and detailing but not limited to the following minimum requirements:

- An overview of assumptions, constraints, specific and quantified resource allocations, productivity assumptions and basis of calculation, identification, and justification of general scheduling provisions such as calendars and working times, lags, date constraints, activity durations longer than one reporting period, etc. Description of network logic and sequencing, in line with practical changes that have taken place on site/off site within the current reporting period, including changes in previous assumptions, which impact sequencing or logic.
- Description of general approach to execute the Scope of Service and proposed impact of and changes thereto.
- Description of approach to allocation, use and management of all resources dedicated to the project, proposed impact of, and changes thereto.
- Description of and trend analysis of critical risks as identified through programme risk analysis and included in programme contingency and or Time Risk Allowance provisions.
- Discussion regarding the basis, method of calculation and validity of the critical path and near critical paths, (interrogate longest path and total float as contained in the programme for accuracy and validity) and comparison to conditions of criticality practically observed on site.
- Reporting on change management, i.e. identify and record any deviations/changes that have taken place within the previous reporting cycle, and their resultant impact on the remaining *works* and as identified and highlighted in the current revision of the programme for acceptance.
- Identification of critical activities, as well as near critical activities and undertake trend analysis on such activities with the aim of identify any deviations from planned performance.
- Identification of any recovery and or mitigation action required in order to neutralise any deviations.

## **6.7 Contractor's management, supervision and key people**

6.7.1 The *Contractor* employs a *Contractor* Environmental Officer as a key person under ECC Clause 24.1

- 6.7.2 The CSHEO reports to the SHEC on the Site. The *Contractor* Environmental Officer ensures that the *works* (to include any part thereof) are subject to a prior environmental method statement(s) approved by the *Project Manager* and ensures that the CEMP is implemented by the *Contractor* in a timely and proper manner. The SCHEO provides the *Project Manager* with all environmental method statements.
- 6.7.3 The *Contractor* Environmental Officer tasks are:
- Daily, weekly and monthly inspections of the Site and Working Areas
  - Monitor compliance with the CEMP (to include the SES and PES) and the environmental method statements submitted to the *Project Manager*
  - Reporting of an environmental incident to the *Project Manager*
  - Attendance at all SHE meetings, toolbox talks and induction programmes
  - Litter control and ensuring the *Contractor* clears litter from the Site and Working Areas; and
  - Ensuring that environmental signage and barriers are correctly placed
  - The *Contractor* Environmental Officer submits daily, weekly and monthly checklists to the SHEC and the *Project Manager*.
- 6.7.4 The *Contractor* employs a CIRP as a key person under ECC Clause 24.1.
- 6.7.5 The CIRP is based on the Site and ensures that all reports and IR requests are submitted accurately and in a timely manner
- 6.7.6 The CIRP tasks are:
- Dedicated to human resources, industrial relations and any other *Contractor* employee related function;
  - Resolve all human resources and industrial relations matters arising from the *Contractor's* employees;
  - Represent the *Contractor* at all industrial relations meetings
  - Represent the *Contractor* on the IRCC
- 6.7.7 The *Contractor* employs an HSR as a *key person* under ECC Clause 24.1  
The *Contractor* employs [state other details] as a key person under ECC Clause 24.1:
- 6.7.8 The *Contractor* provides an Organogram of all his key people (both as required by the *Employer* and as independently stated by the *Contractor* under Contract Data Part Two) and how such key people communicate with the *Project Manager* and the Supervisor and their delegates all as stated at paragraph 6.5 of C3.1 *Employer's Works* Information.

## **6.8 Training *workshops* and technology transfer**

6.8.1 The *Contractor* facilitates the following requirements for training *workshops*:

- a) A safety pre-mobilisation *workshop*
- b) A *Contractor* employee safety training programmes

The *Contractor* shall utilise local people for staffing up some of his requirements and shall ensure that there is adequate skills transfer taking place.

The *Contractor* arranges for the technology transfer to the *Employer* where necessary

## **6.9 Insurance provided by the *Employer***

Insurance provided by the *Employer* is contained in the Contract Data – Part 1.

## **6.10 Contracts change management**

Both parties to comply with NEC 3 ECC core clause 60

### **Contract Strategy**

To ensure the successful completion of this project, the *Employer* intends to award the contract to a single principal *Contractor*. After receiving a purchase order and a contract from the *Employer*, the *Contractor* will complete the work in accordance with the work information.

The *Contractor* is responsible for ensuring that the sub-*Contractors* are competent and experienced for the packages for which they are hired.

## **6.11 Provision of bonds and guarantees**

- The form in which a bond or guarantee required by the conditions of contract (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.
- The *Contractor* provides a bond or guarantee as required by the conditions of contract concurrently with the execution by the Parties of the form of agreement for the ECC contract.

## **6.12 Records of Defined Cost, payments & assessments of compensation events kept by *Contractor***

The *Contractor* keeps the following records available for the *Project Manager* to inspect:

- Records of design employee's location of work (if appropriate);

The *Contractor* keeps the following records available for the *Project Manager* to inspect:

- Records of design employee's location of work (if appropriate).
- Records of Equipment used, and people employed outside the Working Areas (if applicable)

## **6.13 The *Contractor's* Invoices**

When the *Project Manager* certifies payment (see ECC Clause 51.1) following an assessment date, the *Contractor* complies with the *Employer's* procedure for invoice submission.

The invoice must correspond to the *Project Manager's* assessment of the amount due to the *Contractor* as stated in the payment certificate.

The invoice states the following:

Invoice addressed to Transnet SOC Ltd.

Transnet SOC Limited's VAT No: 4720103177.

Invoice number.

The *Contractor's* VAT Number; and

The Contract number [TBA].

The invoice contains the supporting detail.

The invoice is presented by hand delivery.

Invoices submitted by hand are presented to:

Transnet National Ports Authority



First Floor Queens Warehouse

237 Mahatma Gandhi Road

Durban

4000

For the attention of Sindi Mabele

The invoice is presented as an original.

#### **6.14 People**

Minimum requirements of people employed on the Site

The *Contractor* complies with the following PIRPMP

#### ***CONTRACTOR LIABILITY***

The *Contractor* warrants that it will be liable to Transnet for any loss or damage caused by strikes, riots, lockouts or any labour disputes by and/or confined to the *Contractor's* employees, which loss will include any indirect or consequential damages;

The *Contractor* warrants that no negotiations or feedback meetings by the *Contractor's* employees shall take place on Transnet premises, whether owned or rented by Transnet.

The *Contractor* shall give notice to Transnet of any industrial action by the *Contractor's* employees immediately upon becoming aware of any actual or contemplated action that is or may be carried out on Transnet's premises, whether owned or rented, and shall notify Transnet of all matters associated with such action that may potentially affect Transnet.

The *Contractor* is responsible for educating its employees on relevant provisions of the Labour Relations Act which deal with industrial action processes, and the risks of non-compliance.

The *Contractor* is required to develop a Contingency Strike Handling Plan, which plan the *Contractor* is obliged to update on a three-monthly basis. The *Contractor* must provide Transnet with this plan and all updates to the Plan. The *Contractor* is responsible to communicate with its employees on site details of the plan.

## **INDUSTRIAL ACTION BY *CONTRACTOR* EMPLOYEES**

In the event of any industrial action by the *Contractor's* employees, the *Contractor* is required to provide competent contingency resources permitted in law to carry out any of the duties that are or could potentially be interrupted by industrial action in delivering the Service.

The *Contractor* warrants that it will compensate Transnet for any costs Transnet incurs in providing additional security to deal with any industrial action by the *Contractor's* employees.

In the event of any industrial action by the *Contractor's* employees, the *Contractor* is obliged:

To prepare and deliver to Transnet, within two (2) hours of the commencement of industrial action an Industrial Action Report. If the industrial action persists the *Contractor* is required to deliver the report at 8h30 each day.

The Industrial Action Report must provide at least the following information:

- Industrial incident report,
- Attendance register,
- Productivity / progress to schedule reports,
- Operational contingency plan,
- Site security report,
- Industrial action intelligence gathered.

The final Industrial Action Report is to be delivered 24 hours after finalisation of the industrial action.

The management of the *Contractor* is required to hold a daily industrial action teleconference with personnel identified by Transnet to discuss the industrial action, settlement of the industrial action, security issues and the impact on delivery under the contract.

The resolution of any disputes or industrial action by the *Contractor's* employees is the sole responsibility of the *Contractor*.

Access to Transnet premises by the *Contractor* and its employees is only provided for purposes of the *Contractor* delivering its services to Transnet. Should the *Contractor* and its employees not, for any reason, be capable of delivering its services Transnet is entitled to restrict or deny access onto its premises and unless otherwise authorized; such person will be deemed to be trespassing.

The *Contractor* complies with the requirements of the IRCC involving the engineering construction *Contractors* engaged (including all future *Contractors*) by the *Employer*

The roles and responsibilities of the various personnel acting on behalf of the *Project Manager* with respect to IR issues are stated in the paragraphs following:

The PIRM is responsible for ensuring that the *Contractor* complies with the PIRPMP. The PIRM acts on behalf of the *Project Manager*.

To complete the PLA prior to the Contract Date; and

To assign specific duties to the PSIRM.

The SIRM is responsible, inter alia, for day-to-day IR on the Site and Working Areas through the implementation of the PIRPMP. The SIRM reports directly to the PSIRM and the *Project Manager*.

The SIRM specific tasks are:

To liaise with the *Contractor* prior to the commencement of construction activities (as per the *Contractor's* programme accepted by the *Project Manager*) with respect to IR issues under the SIP.

### Key personnel

The tenderer must submit the CV's of the following key personnel

Items	Key Personnel	Qualifications	Experience
1.	<i>Project Manager</i>	<ul style="list-style-type: none"> <li>Must have NQF level 6 or above in the built environment.</li> </ul>	Must have experience in building refurbishment or building construction projects, with traceable

			references in the last 10 years.
2.	Building Foreman/Supervisor	<ul style="list-style-type: none"> <li>Must have a minimum of N6 or equivalent in Building construction and trade test in building construction</li> </ul>	Must have experience in building refurbishment or building construction projects, with traceable references in the last 8 years.
3.	HVAC Technician	<ul style="list-style-type: none"> <li>Must have NQF level 6 or above HVAC design and installation, coupled with ECSA registration as a professional Technician/engineer</li> </ul>	Must have 5 years' experience post registration in similar type of projects within the HVAC design and installation, with traceable references in the last 5 years.
4.	Electrical Technician	<ul style="list-style-type: none"> <li>Must have NQF level 6 or above in the Electrical design and installation, coupled with ECSA registration as a professional Technician/engineer</li> </ul>	Must have 5 years' experience post registration in similar type of projects within the Electrical design and installation, with traceable references in the last 5 years.
5.	Safety officer	<ul style="list-style-type: none"> <li>Must have NQF level 6 Safety Management qualification or other relevant disciplines such as SAMTRAC</li> <li>Professional Registration with South African Council for the Project and Construction Management Professions (SACPCMP) or</li> </ul>	Must have 8 years' experience in building refurbishment or building construction projects, with traceable references.

		any recognised equivalent regulative professional body	
6.	Environmental Officer	<ul style="list-style-type: none"> <li>Must have NQF level 7 Bachelor of Science in Environmental Science / Bachelor of Arts in Environmental Management</li> </ul>	Minimum have at least 3 years work experience in environmental management within the construction environment

## 6.15 Plant and Materials

### Quality

The *Contractor* provides Plant and Materials for inclusion in the *works* in accordance with SANS 1200A sub-paragraph 2.1, unless otherwise stated elsewhere in the *Works* Information provided by the *Employer*. All Plant and Materials are new, unless the use of old or refurbished goods and/or Materials are expressly permitted as stated elsewhere in this *Works* Information or as may be subsequently instructed by the *Project Manager*.

Where Plant and Materials for inclusion in the *works* originate from outside the Republic of South Africa, all such Plant and Materials are new and of merchantable quality, to a recognised national standard, with all proprietary products installed to manufacturers' instructions.

The *Contractor* replaces any Plant and Materials subject to breakages (whether in the Working Areas or not) or any Plant and Materials not conforming to standards or specifications stated and notifies the *Project Manager* and the Supervisor on each occasion where replacement is required.

The *Contractor* provides all other Plant and Materials necessary for the *works* not specifically stated to be provided "free issue" by the *Employer*.

## 6.16 Annexures

All Annexures are those listed in the Annexure Summary appended to this *Works Information*. All Annexures as listed in the Annexure Summary must be regarded as being part of the *Works Information*.

The *Contractor* is to take note that this project was previously managed by TGC / Transnet Group Capital, hence some of the references, annexures or specifications will retain as TGC / Transnet Group Capital though the project is now managed by TNPA.

### List of Annexures

**All the annexures listed hereunder shall be deemed to form part of the *Works Information*.**

The Annexures listed in the Table below can be downloaded from **National Treasury eTender Publication Portal** at [www.etenders.gov.za](http://www.etenders.gov.za) and the Transnet website at <https://transnetetenders.azurewebsites.net> (please use Google Chrome to access Transnet link)

Annexe	Description / Discipline	Document No(s)
A	Architectural <i>Works Information</i>	
B	Electrical <i>Works Information</i>	
C	Civil <i>Works Information</i>	
D	Mechanical <i>Works Information</i>	
E	Structural <i>Works Information</i>	
F	Project Health and Safety Specification	<b>XDNE.E.0037-SP-0001</b>
G	Health and Safety Guidelines	<b>HAS-GL-0001</b>
H	Site Emergency Management	<b>HAS-P-0001 - Rev 0</b>
I	Occurrence Reporting and Investigation	<b>HAS-P-0002 - Rev 0</b>

J	Transnet Integrated Management System Policy Commitment Statement	<b>TIMS-IMS-GRP-GDL-002-1</b>
K1	Construction Environmental Management Plan (CEMP)	<b>ENV-STD-001 Rev 04</b>
K2	Standard Environmental Specifications (SES)	<b>ENV-STD-002 Rev 04</b>
L	Contractor Documentation Submittal Requirements	<b>DOC-STD-0001 rev 3</b>
M	General Quality Requirements for Suppliers and Contractors	<b>TNPA-QUAL-REQ-014.1</b>
N	Principal Controlled Insurance	
O	Contractor Safety Questionnaire	
P	Health & Safety Pricing Schedule	
Q	TGC IR	
R	Covid-19 Occupational Health and Safety Measures in Workplaces Covid-19 (C19 OHS), 2020	<b>TGC-IMS-HS-SOP-009.001</b>
S	TNPA List of Approved Waste Services Contractors	
T	Standard for uniformity in Engineering and Construction	
U	Integrated Management System – Occurrence and Non-conformance Management Procedure	<b>TRN-IMS-GRP-PROC-013</b>
V	CAD Standards	<b>ENG-STD-0001</b>
W	Standard Environmental Maintenance Management Programme for Maintenance Works	
X	Stormwater Management Plan	
Y	COVID-19 Health Care Waste Management on Construction sites	<b>TGC-IMS-ENV-SOP-009.001</b>

Z	Drawings	
AA	TNPA Asbestos Management Plan	
BB	EThekwin Municipality Schedule Trades and Occupations Bylaws	
CC	EThekwin Municipality Interim Code relating to fire prevention and Flammable liquids and substances	
DD	Health and Safety Baseline Risk assessment	



# **ANNEXURE A**

## **BUILDING WORKS INFORMATION**



## VIEW OF 45 BAY TERRACE OFFICES FROM PARKING

### BUILDING

- 4.2.1 The Model Preamble for Trades as published by the Association of South African Quantity Surveyors Model Preamble for Trades 2008 shall be applicable to all the building Works associated with this contract. The following interpretations and meanings shall apply:
- 4.2.2 In case of any conflict in interpretation, ambiguity or discrepancy between any Model Preamble for Trades 2008 (whether standard or written as a particular project specification) contained in the *Works Information* and the *conditions of contract*, the *conditions of contract* shall take precedence within the ECC3 Contract.
- 4.2.3 In case of any conflict in interpretation, ambiguity or discrepancy between any Model Preamble for Trades 2008 (whether standard or written as a particular project specification) contained in this paragraph 8.2 of C3.1 *Employer's Works Information* and specific statements contained elsewhere in C3.1 *Employer's Works Information*, the specific statements contained elsewhere shall prevail, without prejudice to the *Project Manager's* express duty to resolve any ambiguity or inconsistency in the *Works Information* under ECC3 Clause 17.1.

- 4.2.4 Within the Model Preambles for Trades 2008, the following amendments and interpretations shall apply:  
 Where the word or expression "Principal Agent" is used, read "*Project Manager*" or "*Supervisor*" as the context requires.  
 Where the word or expression "*Contractor*" is used, read "*Contractor*".  
 Where the word or expression "Engineer" is used, read "*Project Manager*" or "*Supervisor*" as the context requires.  
 Where the Model Preambles for Trades 2008 mention "rates" for measured work and any contractual statements relating to payment, all such statements shall be discounted, with the ECC3 *conditions of contract* taking precedence.
- 4.2.5 Within the Model Preambles for Trades 2008, A. GENERAL, the following amendments and interpretations shall apply:  
 Where the word or expression "bills of quantities" is used, this shall be discounted for the purposes of the *Works* Information. The ECC3 Contract Data Part One states the main option to apply within the ECC3 Contract between the Parties.
- 4.2.6 Within the Model Preambles for Trades 2008, B. ALTERATIONS, B.2 MATERIALS FROM THE ALTERATIONS, CREDIT, ETC and C. EARTHWORKS, C1.4 Materials from demolitions shall not apply. C3.1 *Employer's* Works Information paragraph 3.1.6 states details of the *Contractor's* title (if any) to Materials arising from excavations and/or demolitions and how such Materials are either to be disposed of or re-used in the *works*.
- 4.2.7 Within the Model Preamble for Trades 2008 Q. PLUMBING AND DRAINAGE, Q.24 TESTS shall be deemed to be included within paragraph 3.2.1 of C3.1 *Employer's* Works Information.
- 4.2.8 Within the Model Preamble for Trades 2008 U. EXTERNAL WORKS, U.3.8 Process control tests shall be deemed to be included within paragraph 3.2.1 of C3.1 *Employer's* Works Information.
- 4.2.9 The principles, meanings and interpretation stated and established within paragraphs 8.2.1 to 8.2.8 with respect to the Model Preambles for Trades 2008 equally apply to the other Model Preambles for Trades 2008 references used within this paragraph 8.2 of C3.1 *Employer's* Works Information.
- 4.2.10 Particular specifications provided by the Employer
- Manufacturer's instructions and specifications  
 All materials and products shall be used and installed in strict accordance with the manufacturer's instructions and specifications.  
 In circumstances where the manufacturer offers any form of guarantee the contractor is to ensure the products are installed in such a manner as to cover the installation specifications of the guarantee.  
 Where trade names are specified in the construction works equal or approved products could be considered by the project team. The appropriate product manuals or data sheets would need to be submitted for approval.

- Use of locally manufactured materials and products

Materials and products manufactured in South Africa shall be used in carrying out the work to which this specification refers, unless an imported product is prescribed specifically, or when no suitable locally manufactured product for the specific use is available.

In circumstances where the manufacturer offers any form site supervision or routine quality audit for the installation and use of products to ensure the guarantee of their product the contractor is to ensure these products are used in preference to any other manufacturer in lieu of the guarantee.

- Samples

The *Contractor* shall furnish without delay, such samples and/ or certificates as called for or may be called for by the *Supervisor / Project manager*. Materials and/or workmanship not corresponding with approved samples may be rejected. Samples for approval shall be required for paint colours, wall finishes, ceiling finishes and floor finishes. These approved samples shall remain on site for the duration of the Works. The samples are to be labeled or marked with the following minimum information thereon. Project name and number. Supplier's name and phone number. Product information eg. Size, guarantee, colour codes, thickness, material, finish etc. Any other information to assist in the approval process.

- Waterproofing of roofing, slabs and walls

The Contractor shall furnish the Employer with a written guarantee covering materials and workmanship for all waterproofing specified or offered for new work and repairs to existing. This guarantee shall be signed by the Contractor and countersigned by the supplier of the materials used and underwritten by a recognised insurance company. The guarantee shall be valid for a 10-year period.

Should any maintenance be required during the guarantee period, the Contractor shall allow for the cost of such in his tender price as the Contractor shall be held solely responsible for any leaks that occur during the guarantee period.

- Ceilings:

All ceilings to be installed in accordance with the current code of practice for ceiling installation adopted by the South African Building Interior System Association (SABISA).

Care to be taken to ensure that the fixing used for the suspension points should be able to support a safety factor of three times the design load of the ceiling.

The ceiling erection should take place at a later stage in the building, when the building is clean and there is less likelihood of damage from other trades and exposure to the elements.

The entire system grid, tees and suspension system and ceiling tile to conform to:

- a Fire Classification: Class B/B1/2
- Sound Attenuation: 32dB
- Thermal Conductivity: 0.25 (m<sup>2</sup>.k)/W
- Humidity: 99%
- Light Reflection: 85%

- Doors

All doors to have SABS certification.

Contractor to ensure the certification thereof shall be provided.

Fire Rated Door to be in strict accordance with the manufacturer's instructions and in compliance with SABS 1253:2004 and carrying the relevant SABS mark for 120 min fire rating.

Frame to be minimum 1.6mm gauge red oxide primed galvanized steel frame to suit thickness of wall.

The ironmongery supplier shall have a team of architectural consultants to offer a comprehensive specification and scheduling service for the specification of the ironmongery schedule.

The ironmongery supplier shall have on-site service and installation support teams during and after the contract.

The ironmongery shall carry a minimum guarantee period of 2 years.

The ironmongery supplier must have a team of architectural consultants to offer a comprehensive specification and scheduling service for the specification of the ironmongery schedule.

The ironmongery supplier must have on-site service and installation support teams during and after the contract

- Partitions

All partition systems shall be installed as per manufacturer's specification.

The partition supplier shall have a team of architectural consultants to offer a comprehensive specification and site inspection service for the specification and checking of the quality of the site installation process.

Partitions that are to be installed shall be structurally stable, secure and firm.

Partition system to be with overall thickness of 76mm with SoundTherm Insulation of partition, including any additional steel studding necessary at door openings, glazed or other apertures, abutments, ends, corners, etc. the joints taped over and flushed over with jointing compound prepared for painting.

Fire rating certificate of partitions shall be provided for Fire protection: up to 60 minutes as per BS 476 parts 20 - 23.

#### Wallpaper:

Only wallpaper with a VOC of 0% to be used and the contractor shall provide an approved signed VOC content certification prior to any wallpaper being ordered.

Wallpaper to be backed contract vinyl wallcoverings, supplied at a width of 130cms. The wallpaper is to be hung by a qualified approved contractor making use of the following minimum instructions.

All contract vinyl wallcoverings shall be impermeable to moisture, and the adhesive will need to dry out into the wall. If drying is hampered or prevented by a damp wall or a painted, over sealed, or non-absorbent wall surface then "open" or "sprung" joints may arise or fungal growth occur.

2. All wall surfaces should be slightly porous, dry in depth, sanded smooth, and clean. Any inherent problems of dampness must be cured. The wall should be uniform and light in colour. Grease, oil, crayon, ball and felt marks should be removed from walls prior to hanging as otherwise they will strike through the wallcovering to produce stains.



3. In general, all wall surfaces should be sized with a primer/sealer as recommended by your supplier and allowed to dry thoroughly before hanging. Alternatively, a solution of dilute adhesive (60% adhesive and 40% water) may be used if your supplier cannot recommend a suitable primer/sealer. Care should be taken not to over-seal the wall surface.

4. New plaster walls must be given sufficient drying out time before attempting to hang any contract vinyl wallcovering.

5. Cross lining the walls is often not necessary and should be avoided wherever possible. It can cause:

- a. Problems in cutting overlap joints.
- b. Will reduce the impact resistance of some wallcoverings.
- c. May invalidate the Fire Certificates.

However cross lining may be required to deal with non-absorbent surfaces (See paragraph 6). Even walls should be given a skim plaster finish or failing that a wallcovering should be chosen that has sufficient texture to disguise the fault.

6. Non-absorbent surfaces, e.g. Formica, ceramic tiles, etc. should first be washed down with sugar soap. The surface should be roughened to create a key, then treated with a primer/sealer as recommended by your supplier.

7. Metal surfaces should be cleaned with a metal cleaning agent as recommended by the supplier (not water based) and treated with the appropriate metal primer. The surface should then be given a coat of primer/sealer, cross lined, and decorated as for non-absorbent surface described in paragraph 6.

8. Walls that are soft, crumbly, or dusty should be treated with oil-based primer/sealer or stabilising solution recommended by your supplier. If this treatment results in an over sealed wall, proceed as for non-absorbent surface surfaces described in paragraph 6

9. Alkaline surfaces should be treated with an alkali resisting primer recommended by your supplier and allowed to dry for 48 hours before hanging commences. If this treatment results in an over sealed wall, proceed as for non-absorbent surfaces in paragraph 6

10. Water soluble paint or distemper should be removed by washing thoroughly and then sized as described in paragraph 3

11. Emulsion painted walls can have wallcovering hung directly if the wall is sound. If the paint is flaking or there is any doubt about adhesive, it should be removed.

12. Gloss painted walls should be scored through or sanded right down to create absorbency. If this is not possible, proceed as for non-absorbent surfaces in paragraph 6. Any gloss paint left on the wall following decoration of door frames, window frames. Skirting boards, etc. should be sanded down to prevent subsequent lifting of the wall at the edges.

#### ADHESIVES

1. In all case, approved top-quality heavy-duty methyl cellulose powder paste adhesive, especially manufactured for contract vinyl wallcoverings, should be used.
2. All adhesive must contain an efficient fungicide if fungal growth during drying is to be prevented.
3. You may stir the adhesive before use but do not dilute or problems may arise. Do not let it freeze.

#### HANGING

1. Cut the material into length numbering them in order of cutting and marking the top of each length. In any one area always use rolls of wallcovering from the same batch. Plan the decoration so that a roll change does not take place in the middle of the wall.
2. In general, all wallcovering should be "reverse hung". Any designs that are exceptions to this rule will have a label advising of "straight hanging" inserted in the roll. Designs requiring some degree of matching will have an appropriate label in the roll
3. Always use plumb line to mark the wall for the first drop.
4. Apply full Strength adhesive to the back of the wallcovering using a 10mm roller or a good pasting brush ensuring an even coverage. Alternatively, if the above is not possible apply full strength adhesive to the wall and damp the back of the wallcovering with an even and minimal application of water.
5. When two drops have been pasted, hang the first drop again the plumb line mark. Smooth out any air bubbles with a scraper working from the centre outwards. Trim top and bottom.
6. Reverse hang the next length overlapping by 30mm. Some designs have an imprinted selvedge with production control marks on it which should be ignored by the decorator. Sufficient overlap must be allowed to remove this selvedge. Press both edges to the wall and make a continuous cut room ceiling to floor through both thicknesses., using a steel straight edge and a sharp Stanley knife. Peel the two waste strips, re-paste the edges of the drops if necessary and press down firmly.
7. Any adhesive which may have contaminated the surface of the wallcovering should be washed off as soon as possible with a damp sponge and clean water.
8. Avoid infilling with out of sequence drops or offcuts as shading may result.
9. If necessary, the joint may be carefully seam rolled by interposing a wall covering offcut in between the roller and the joint.

#### STRIPPING OF WALLPAPER

1. The approved contractor shall remove the wallpaper using water. Fill a clean spray bottle with hot water and saturate the wallpaper with the water. Allow it to soak in for at least 15 minutes to

loosen it up and make the adhesive easier to separate from the wall. Then, use a scraper to start removing the damp wallpaper.

2. The approved installer shall ensure they do not damage the walls whilst using the scarper to remove the lining.

3. Any backing paper remaining after peeling off the wallcovering the contractor shall ensure that the original is well adhered and will remain so, when wetted. Test by wetting the layer and if in any doubt strip the wall paper completely.

- Glazing, Shopfronts, and Windows

All glazing and safety glazing shall comply with SANS 613 and the SANS Codes of practice.

All safety glass shall carry the Manufacturer's warranty against any manufacturing defects and discoloration for a minimum period of 5 years.

As per SANS 10400-N, an approved permanent safety stencil mark shall appear on each pane on all safety glass.

Glazing and shopfront installations shall comply with SANS 10400-XA.

All tinted glazing must have the required thermal protection (U-factor rating) to ensure compliance to SANS 10400-XA.

Installation certificate by AAMSA approved contractor is required for all shopfront installations.

All shop fronts and window sections shall be water tight and able to withstand coastal winds of up to 80m/sec.

All glazing shopfronts and windows shall be designed stored installed as per manufacturer's specification

For any design by the Contractor See also Part 2.2 of this document; design by contractor.

Installation certificate by AAMSA approved *Contractor* is required for all shopfront installations.

All shop fronts and window sections shall comply with SANS 613, be waterproof and able to withstand the coastal wind conditions.

- Brickwork and Mortar Joints

All brickwork is to conform with the standards and guidelines as stipulated in the

- |      |   |
|------|---|
| I.   | National Home Builders Registration Council<br>Standards and Guidelines<br><a href="http://www.nhbrc.org">www.nhbrc.org</a>                                     |
| II.  | Cement & Concrete Institute<br>Publications on concrete, mortar, plaster and construction<br>detailing.<br><a href="http://www.cnci.org.za">www.cnci.org.za</a> |
| III. | Clay Brick Association<br>Building contractors pocket handbook<br><a href="http://www.claybrick.org">www.claybrick.org</a>                                      |



Prior to bricklaying, proper setting out of brickwork shall be undertaken by the Contractor's bricklayer for variances in brick dimensions.

The Contractor shall construct a sample wall of 10 courses high and 8 courses wide to gain the approval for the quality of the workmanship.

The sample wall is to be constructed and plastered to gain the approval for the quality of the plastering and workmanship.

The wall shall remain constructed on site from the commencement of the project to the completion of the project.

Mortar joints to face brickwork generally shall be 10mm in thickness with level bedding joints, vertical perpend.

Setting out of brick gauge shall be determined on site as average sizes of bricks may vary.

The use of DPC shall be provided and installed as per SANS 10021, to provide barrier against rising damp, water penetration from above and horizontal water penetration

SABS 248-1973: Bituminous damp proof course.

SABS 298-1975: Mastic asphalt for damp proofing courses and tanking are further references to adhere to.

Wall ties are to comply with SABS 28-1986: Metal ties for cavity walls.

Brick coursing to be 230 wide and 85 high.

Brickwork to be re-inforced in solid cement mortar joints with brickforce as per engineers detail.

GMS butterfly wire wall ties at 450mm maximum vertical centers and 600mm horizontal centers for cavity walls.

- Painting

Paint to be used on all surfaces are to carry a minimum guarantee period of 14 years.

Manufacturer of the paint shall provide regular inspection to ensure the surface preparation and application of the products are in accordance with the manufacturer's instruction.

Regular moisture tests are to be carried out to ensure the surfaces are thoroughly dry - no more than 12% moisture content is recommended.

All products must be applied in strict accordance with the Manufacturers specification and product technical data sheet.

On completion of painting, the contractor is to ensure the paint manufacturer provides the adequate documentation for the paint guarantee.

- Plaster & Painted Area Procedures

Ensure that surfaces are sound and free from dust, oil, grease, dirt, and debris. Surfaces must be thoroughly dry - no more than 12% moisture content.

Prior to painting, establish and repair all causes of moisture in the structure such as rising/lateral dampness; water ingress from balconies etc. All to be done in strict accordance with approved damp proofing methods.

All products must be applied in strict accordance with the Manufacturer Specification and Product Technical Data Sheet.

The first finishing coat be tinted from a base 9 to a colour corresponding to the colour of the topcoat. This will reduce the number of topcoats required for full hiding. Inter-coat washing is essential for all

coastal projects. When in close proximity to the ocean, it is important to ensure surfaces are free of contaminants, specifically salt deposits, before painting can commence. For surfaces exhibiting excessive chalkiness, a full coat of primer is necessary to aid adhesion. Prior to painting, establish and repair all causes of moisture in the structure such as rising/lateral dampness; water ingress from balconies etc. All to be done in strict accordance with approved damp proofing methods.

#### Application:

Ensure surfaces are sound, clean and thoroughly dry - moisture content should not exceed 12%. Apply approved Trade Alkali Resistant Primer at 9m<sup>2</sup> per litre, as a primer to bare and chalky surfaces. Allow overnight drying. Fill minor plaster deficiencies with a Pre-Paint Multi-Purpose Ready Mix Crack Filler and allow to dry and sand smooth. For textured walls surface drag a dry paint brush through the still wet filler to best recreate the existing wall texture. Spot prime with approved Pre-Paint Multi-Purpose Ready Mix Crack Filler repaired areas with primer and allow drying. Finish the walls with 2 coats of Wallguard at 8-10m<sup>2</sup> per litre per coat with 4 hours drying time between coats.

#### For Map cracking vertical walls

Before painting can commence, every problem must be repaired in strict accordance with best painting practice standards.

High Pressure water clean the walls at 180-220 KPA operating pressure utilising a rotating nozzle, remove defective paint and or paint system back to a sound paint layer or bare plaster as well as exposing any friable plaster. Reinstall friable plaster with a suitable mortar mix and allow to dry out with a moisture content of 12% or below. Use a paint scraper to remove any loose edges of paint. Use P80 sandpaper to feather the edges of the tightly adhering paint.

#### Application:

Ensure surfaces are sound, clean and thoroughly dry - moisture content should not exceed 12%. Apply a full coat of Trade Alkali Resistant Primer at 9m<sup>2</sup> per as a primer to bare and chalky surfaces. Allow overnight drying. Fill minor plaster deficiencies with Pre-Paint Multi-Purpose ready Mix Crack Filler and allow to dry and sand smooth. For textured walls surface drag a dry paint brush through the still wet filler to best recreate the existing wall texture. Spot prime with Pre-Paint Multi-Purpose Ready Mix Crack Filler repaired areas with Trade Alkali Resistant Primer and allow drying. Apply 2 coats of Rainshield at 3-4m<sup>2</sup> per litre with a medium pile roller, to achieve a minimum total DFT of 300 microns. Apply as a full round coat, bridging repaired cracks. This coating should be applied from corner to corner – it will smooth over uneven surfaces, such as chipped valleys caused by layers of old peeling paint, and poor patching. Finish the walls with 2 coats of Wallguard at 8-10m<sup>2</sup> per litre with 4 hours drying time between coats.

### INTERIOR PAINTING

High sheen washable paint to interior new cement plaster.

Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats high sheen washable (VEL) with 2 hours drying time between coats, for a maintenance cycle of 7 years in a C5 - coastal/marine environment.

High sheen washable paint to interior new cement plaster in bathrooms.

Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat approved Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats Velvagio (VEL) with 2 hours drying time between coats, for a maintenance cycle of 7 years in a C5 - coastal/marine environment.

- Sanitary ware

All sanware products shall be clear of material and manufacturing defects.

Appraisal of the above shall be done against ruling manufacturing specifications and standards at the date of manufacture.

The manufacturer of the sanware must be able to repair or exchanged defective product.

All sanware products shall be installed by a registered or accredited manufacturer's installer.

Sanware shall be used with or included in installations where water temperatures are outside of the temperature range stipulated for that product, or as laid down in the Standards for water supply and drainage (SANS 10252 & 10254) or an equivalent international standard.

Products shall be installed according to manufacturer's installation instructions or according to valid Water Regulations and general good plumbing practice.

All pipe work shall be flushed for clearance of dirt or debris in pipe-work prior to the use of terminal fittings.

All sanware handling shall be as per manufacturer's instruction.

All consumables e.g. filters, filter cartridges, aerators, batteries seals or hoses shall be used as per manufacturer's instruction.

All sanitaryware shall carry a warranty valid for :

20 years for taps & mixers, wastes, capillary and compression fittings

5 years for showerheads.

2 years for electronic mixers components and valves.

2 years for valves (geyser and toilet)

10 years for multi-layer pipe system must be used with compression fittings and Safe inserts.

10 years on all baths, shower trays and vanities.

10 years on all sanitaryware

6 months on all toilet seats.

- Protection of works

The Contractor shall provide all necessary dust sheets, hoarding, etc. and shall exercise all necessary care to prevent marking surfaces, walls, floors, glass, electrical fittings, etc. and shall keep all parts of the works perfectly clean and free at all times from spotting, accumulation of rubbish, debris of dirt arising from the operations. Any surface disfigured or otherwise damaged shall be completely renovated or replaced as necessary by the Contractor at his own expense to the Supervisor's approval. The premises shall be left clean and fit for occupation at completion of the work.

- Demolition

The Contractor shall carefully remove appliances and those that have been removed and are described for re-use in the construction works or to be returned to the client.

Any floors, walls and surfaces damaged shall be made good by the Contractor.

All items removed are to be returned to the client.

All rubble and other debris are to be removed off site and dumped in a legal dump site.

## 1. List of Drawings

### 1.1. Drawings issued by the *Employer*

[illegible]

# **ANNEXURE B**

## **ELECTRICAL ENGINEERING WORKS INFORMATION**

## 4.5 Electrical Engineering Works

### 4.5.1 Scope of Work

The scope to be carried out by the *Contractor* shall include but not be limited to the following:

- Supply, delivery and installation of 1MVA, Minisubstation.
- Supply, delivery and installation of 1MVA Diesel Generator including Change Over Panel.
- Supply and installation of a Medium Voltage Cable from Parking Garage Minisubstation to Bay Terrace Building
- Supply, delivery and installation of 4 x 20kVA, 400V LV Back-up uninterruptable power supply (UPS) system
- Dismantling and stripping of existing electrical equipment including lights, socket outlets, conduit and associated electrical installation.
- Supply, delivery and installation of exterior luminaires.
- Supply, delivery and installation of interior luminaires for all buildings and facilities.
- Supply, delivery and installation of cabling, distribution boards, wire ways and associates
- Commission and testing of the entire installation and hand over to the Employer.

If required, the *Contractor* may undertake designs and submit them to the *Employer's* responsible personnel for approval. The high-level designs by the *Employer*, which illustrates the overall design methodology, is detailed and shown in the drawings and specifications accompanying this document. The *Contractor* shall read this document in conjunction with all the drawings and the specifications mentioned herein this document.

### 4.5.2 General

- Transnet National Port's Authority electrical appointed personnel shall perform all the required switching and control work permits.
- For any required switching, the Contractor shall submit a notification to the *Project Manager* seven days prior to the required work being performed.

### 4.5.3 Standard of Work, Equipment and Materials

- The electrical installation shall conform to the requirements of the latest edition and amendments of SANS 10142-1 Code of Practice for the Wiring of Premises and any additional requirements thereto, described in this specification.
- All equipment and material used shall be of high quality and the work shall be of a high standard of workmanship carried out by qualified staff under proper supervision by experienced and competent officers.
- All equipment and material shall comply with the relevant National or International standard specification. Where equipment does not comply, it shall be submitted to the Project Manager for approval.
- All installations, testing and terminations must be approved by the Transnet National Port's Authority (TNPA) Engineer prior to commissioning.

#### 4.5.4 Generic Specifications

All Design's undertaken, Plant's and Materials supplied by the *Contractor* in agreement with the Employer, with the intention to execute the works detailed in this document, shall comply in general with all associated Transnet Specifications listed below. It is understood that Transnet Specification requirements are more stringent than the SANS standard requirements, the *Contractor* is required to fully comply with the Transnet Specifications. In the case where SANS standard is stringent than Transnet Standard, the Contractor shall comply with SANS Standard. The contractor shall also verify all site details given in the employers' drawings.

STANDARD	DESCRIPTION
TPD-001-EL&PSPEC	Technical specification for electrical installations to building other than dwelling houses
TPD-002-DBSPEC	Technical specification for low voltage distribution boards
TPD-003-CABLESPEC	Technical specification for medium and low voltage cables
TPD-004-EARTHINGSPEC	Technical specification for earthing and the protection of buildings and structures against lightning
TPD-009-STANDBYPLANTSPEC	Specification for the supply, delivery, offloading, installation and commissioning of diesel driven

	standby generator sets
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#### 4.5.5 Service Conditions

The equipment shall be designed and rated for continuous operation under the following conditions:

##### 4.3.5.1 Ambient/Environment Conditions:

All equipment offered shall be rated for continuous operation under the following conditions:

- Altitude : 0 to 1800m Above Sea Level.
- Ambient temperature : -5°C to +40°C (daily average +35°C).
- Relative humidity : As high as 96%.
- Lightning conditions : Severe, with a maximum lightning ground flash density of 11 flashes per km<sup>2</sup> per annum.
- Atmosphere : Salt laden and corrosive industrial chemical and dust laden nature. Frequent heavy rains driven by wind reaching speeds of 100 Km/h and above.

##### 4.3.5.2 Electrical Conditions:

- The Low voltage supply will be three phase, 4 wire, 50 Hz alternating current with earthed neutral at a nominal voltage of 400 / 230V.
- The voltage may vary within the range of 95% to 105% of the nominal and all equipment installed shall be suitably rated.



#### 4.3.5.3 Lightning conditions

All lightning protection equipment offered shall be rated to withstand the following conditions:

- Current : The peak lightning current and its rate of rise shall be regarded as severe when  $i_{max} = 200kA$ .
- Voltage : The highest cloud potential shall be assumed to be more than 100MV, where;  $Q = CV$ , where Q is assumed at 100C and C to be  $10^{-7} F$ .

#### 4.5.6 Governing Codes, Standards and Specifications

##### 4.5.6.1 Normative References

The following publications and specifications (latest edition) shall apply where contextually correct:

Standard No.	Description
SANS 767 - 1	Fixed earth leakage protection circuit-breakers
SANS 950	Unplasticized chloride rigid conduit and fittings for use in electrical installations
SANS 1063	Earth rods, couplers and connections
SANS 1085	Wall outlet boxes for the enclosure of electrical accessories
SANS 1091	National colour standards for paint
SANS 1213	Mechanical cable glands
SANS 1433 - 1	Electrical terminals and connectors Part 1 terminal blocks having screw and screw less terminals
SANS 1433 - 2	Electrical terminals and connectors Part 2: Flat push-on connector
SANS 1507 (part 1 – 4)	Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1900/3300V) Part 1 - 4
SANS 60669 - 2 - 1	Switches for household and similar fixed electrical installations Part 2-1: Particular requirements - Electronic switches
SANS 60669 - 2 - 4	Switches for household and similar fixed electrical installations Part 2-4: Particular requirements - Isolating switches
IEC 60998 - 2 -1	Connecting devices for low-voltage circuits for household and similar purposes Part 2-1: Particular requirements for connecting devices as separate entities with screw-type

	clamping units
SANS 10313	Protection against Lightning – Physical damage to structures and life hazard
SANS 10064	Code Of Practice For The Preparation Of Steel Surfaces For Coating.
SANS10142-1	Code Of Practice For The Wiring Of Premises
SANS 10389-1	Exterior Lighting Part 1: Artificial Lighting Of Exterior Areas For Work And Safety
OHS Act	Occupational Health And Safety Act Of 1993
SANS 10199	The Design And Installation Of Earth Electrodes
SANS152	Low Voltage Air Breaker Switches, Connectors, Switch Disconnectors, Fuse Combination Units.
SANS 172	Low Voltage Fuses
SABS 763	Hot Dip Zinc (Galvanised) Coatings
SANS 1012	Electric Light Dimmers
SANS 1065-1	Metal Conduits And Fittings For Electrical Wiring
SABS 1180	Electrical Distribution Boards
SANS 1279	Floodlight Luminaires
SABS IEC 439	Low Voltage Switchgear
SABS IEC 309	Plugs, Socket Outlets And Couplers For Industrial Purposes
SABS IEC 742	Isolating Transformers And Safety Isolating Transformers
SANS 10313	Protection against Lightning – Physical damage to structures and life hazard

#### 4.5.6.2 Codes of Practice

All *Design's*, *Construction* works (i.e. excavation), *installation* works to be undertaken by the *Contractor*, in agreement with the *Employer*, with the intention to execute the works detailed in this document, and shall adhere to as a minimum, the requirements of the *Codes of Practice* listed in the table below. Where reference is made to a *Code of Practice*, the reference shall be taken to mean the latest edition of the *Code of Practice*, including latest amendments, supplements and revisions thereto.

Standard No.	Description
OHS Act 1993	Occupational Health and Safety Act (Electrical Installation

	regulations)
SANS 10142-1	Code of Practice for the Wiring of Premises Part 1 Low Voltage Installations.
SANS 10114-1	Interior Lighting Part 1 The artificial lighting of Interiors
SANS 10114-2	Interior Lighting Part 2: Emergency Lighting
SANS 10313	Code of Practice for protection of buildings against lightning

#### 4.5.7 BAY TERRACE POWER SUPPLY

##### 4.5.7.1 1 MVA MINISUBSTATION

- a) The Contractor shall supply, deliver, offload and install similar or equal approved to Aberdare, Medium Voltage, 393m x 50mm<sup>2</sup>, 3CORE XLPE insulated, PVC bedded, SWA, PVC sheathed 6.6/11kV cable in the existing and proposed pipe and chamber system shown in drawing number XDN.E.0037-1-200-E-LA-0007-01-0A. The cable shall be installed and terminated in accordance to the cable manufacture's specification and in adherence to Transnet specification TPD-003-CABLESPEC. The contractor shall ensure that the manufacturer's recommendations regarding the minimum cable bending radius is adhered to when installing the cable.
- b) The Contractor shall also supply, deliver, offload, install and commission a 3-way outdoor type Mini substation as shown in drawing number XDN.E.0037-1-200-E-LA-0007-01-.2.
- c) The Mini Substation shall be supplied completely with the RMU switches, MV Bus Bar System, LV Switchgear and LV Bus Bar system and all accessories including but not limited to glanding plate and Earth bar.

- d) The enclosure of the Mini Substation shall be made of 3CR12 stainless steel type of material with a thickness of 1.6mm and powder coated 40microns paint. The Contractor shall ensure that the Mini Substation fully complies with Transnet specification TPD-003-MINISUBSPEC.

## STANDBY GENERATOR

- a) The *Contractor* shall supply, deliver, offload, install and commission a 1 x 1 MVA, 4 – Pole, 3 – phase, 50Hz, 400V rated Standby Diesel Generator Plant in the ground floor parking area allocated shown in drawing number XDN.E.0037-1-200-E-LA-0007-01-.2. The Generator shall have a minimum Power Factor of 0.9. The total time taken for the diesel generator to achieve stabilised running from the start shall not exceed 10 seconds. The Diesel Generator shall be designed and constructed in compliance with Transnet Specification TPD-009-STANDBYPLANTSPEC. The base support structure and fuel tank shall be manufactured in grade 304 stainless steel and epoxy powder coated. The generator exhaust system shall be manufactured in grade 316 stainless steel.
- b) The *Contractor* shall design, supply, deliver, offload and install a Mains/Standby Automatic Change over Panel with electrical distribution board. The Panel shall contain similar or equal approved to OTM 1600E series Automatic Transfer switch rated; 4 – Pole, 400V, 1600A with a handle for manual operation. The Panel shall allow top/bottom cable entry access to be aligned with the new cable chamber system. The Panel shall be supplied on the same Contract as the Standby Generator. The Panel shall contain 3 LED indication lamps (Green for Mains in Operation, Orange for Standby Generator in operation and Red for none of the supply systems in operation). The Panel shall be fully equipped with a cable glanding plate, protective earth bar and all necessary mechanical supports accessories. The Panel shall be made of 3CR12 type stainless steel, powder coated to 40 microns and painted orange with the essential section being red in colour.
- e) The *Contractor* shall supply, deliver, offload and install 12 x 240mm<sup>2</sup>, single core, SWA, PVC insulated, low voltage copper cables. The Contractor shall terminate the low voltage copper cable between the Mini-substation and the new Main DB as shown in drawing number: XDN.E.0037-1-200-E-LA-0003-01-.2. The cables shall be installed and terminated in accordance to the cable manufacture's specifications and also in adherence to Transnet specification TPD-003-CABLESPEC.
- f) The *Contractor* shall supply, deliver, offload and install 12 x 240mm<sup>2</sup>, single core, SWA, PVC insulated, low voltage copper cable. The Contractor shall terminate the low voltage copper cable between the Main DB and changeover panel to the new backup Generator as shown in drawing number: XDN.E.0037-1-200-E-LA-0003-01-.2. The cables shall be installed and terminated in accordance with the cable manufacture's specifications and also in adherence to Transnet specification TPD-003-CABLESPEC. The low voltage cables shall be installed on a new stainless steel cable ladder (Grade 316) as shown in drawing number XDN.E.0037-1-200-E-LA-0003-01-.2. These cables are to be installed in trefoil formation, 150mm apart.

### 4.5.8 Building LV Electrical Installation

#### 4.5.8.1 Ground Floor

This works information shall be read in conjunction with the drawings listed in section 6.4.9, SANS standards, codes of practice, and Transnet specifications listed herein this document.

All works to be carried out shall be performed with full adherence to safe practice of electrical installations as stipulated in SANS 10142-1, SANS 10142-2 and OHS Act 85 of 1993 (Electrical Installation Regulations).

##### a) MAIN DISTRIBUTION BOARD M

- The *Contractor* shall design, construct, supply, deliver, offload, install and commission Distribution Board DB-M in the Ground Floor Parking. The distribution board shall be Floor Standing, made of 3CR12 type material with a thickness of 1.6mm, IP65 and paint type shall be powder coated at 40 microns as shown in drawing number XDN.E.0037-1-200-E-LA-0003-01-.2. The Contractor shall conform to the paint colours indicated in drawing number XDN.E.0037-1-200-E-LA-0003-01-.2.
- The distribution board shall be bottom cable entry. Cableways shall be built or installed in terms of cable trenches and cable ladder.
- The Distribution Board shall contain the following signage: Name of the Distribution Board as indicated in drawing number XDN.E.0037-1-200-E-LA-0003-01-.2 ("Distribution Board DB-M").
- Naming of the different sections of the Distribution Board.
- The rated Voltage level of the Distribution Board
- The rated Short Circuit Current in all different sections of the distribution board
- The rated current in different sections of the distribution board
- Description of circuits fed by the associated circuit breaker as indicated in drawing number XDN.E.0037-1-200-E-LA-0003-01-.2
- Full description of the type of cable (Copper PVC insulated ECC, SWA), the size in mm<sup>2</sup> of the cable terminated in the associated circuit breaker and the cable run length to the load.
- Danger sign in all sections of the Distribution board.

##### DISTRIBUTION BOARD A

- The *Contractor* shall design, construct, supply, deliver, offload, install and commission Distribution Board DB-A in the Ground Floor . The distribution board shall be surface mounted on the wall, made of 3CR12 type material with a thickness of 1.6mm, paint type

shall be powder coated at 40 microns as shown in drawing number XDN.E.0037-1-200-E-LA-0006-01-0A. The Contractor shall conform to the paint colours indicated in drawing number XDN.E.0037-1-200-E-LA-0006-01-.2. The distribution board shall be top cable entry.

- The Distribution Board shall contain the following signage: Name of the Distribution Board as indicated in drawing number XDN.E.0037-1-200-E-LA-0006-01-.2 ("Distribution Board DB-A").
- The distribution board shall be bottom cable entry. Cableways shall be built or installed in terms of cable trenches and cable ladder.
- The rated Voltage level of the Distribution Board
- The rated Short Circuit Current in all different sections of the distribution board
- The rated current in different sections of the distribution board
- Description of circuits fed by the associated circuit breaker as indicated in drawing number XDN.E.0037-1-200-E-LA-0006-01-.2.
- Full description of the type of cable (Copper PVC insulated ECC, SWA), the size in mm<sup>2</sup> of the cable terminated in the associated circuit breaker and the cable run length to the load
- Danger sign in all sections of the Distribution board.

#### b) LIGHTING INSTALLATION

- The *Contractor* shall uninstall existing luminaires and issue the removed items to the TNPA maintenance manager at the TNPA Power Supplies and Services Depot (1 Kuwait road). The *Contractor* shall inspect and test all existing wiring and circuitry. Damaged wires shall be replaced.
- The *Contractor* shall supply and install luminaries as shown on drawing XDN.E.0037-1-200-E-LA-0001-01-.2. The *Contractor* shall design, supply, deliver and install SABS approved, PVC conduit flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all flush mounted 4x2 PVC boxes to the distribution board and luminaires. All

necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.

- The *Contractor* shall supply and install LED strip lighting as per drawing XDN.E.0037-1-200-E-LA-0001-01-.2 The *Contractor* shall conform to the necessary requirements when installing the LED strips in the ceiling.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all lighting circuits as shown in drawing XDN.E.0037-1-200-E-LA-0001-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC.
- The light switch boxes and the conduit droppers if required shall be recessed into the wall, unless otherwise stated. All conduit terminations to light switch boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All luminaires shall be installed according to SANS 10142-1 and specification No. TPD-001-EL&PSPEC; Specification for electrical installations to buildings other than dwelling houses.
- The *Contractor* shall supply, deliver, and install occupancy sensors as detailed in drawing number XDN.E.0037-1-200-E-LA-0001-01-.2. The time delay DIP switch setting on the occupancy sensors shall be set at thirty (30) minutes.
- All electrical *works* pertaining to the electrical lighting should be done in accordance with the referenced drawing, if clarity is needed in any regard the electrical engineer should be contacted prior to any commencement of work.

#### c) LIGHT SWITCHES

- The *Contractor* shall supply, deliver and install light switches as shown on drawing number XDN.E.0037-1-200-E-LA-0001-01-.2.
- The *Contractor* shall supply, deliver and install RGBW LED Controller's for the LED strip lighting as shown on drawing number XDN.E.0037-1-200-E-LA-0001-01-.2.

#### d) SWITCHED SOCKET OUTLETS

- The *Contractor* shall supply and install switched socket outlets as shown on drawing number XDN.E.0037-1-200-E-LA-0002-01-.2.
- The power supply to the socket outlet shall be installed in existing PVC conduits recessed into the wall or slabs, unless otherwise stated. The mounting height for the power points is as specified in the drawing.



- The conduit droppers and the socket outlet boxes if required shall be cast into concrete and built into brick walls. All conduit terminations to socket outlet boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All PVC conduits, couplers, male adaptors, boxes and PVC adhesives shall be SABS approved.
- All socket outlets shall be installed according SANS 10142-1 and specification No. TPD: 001-EL&PSPEC; Technical specification for the supply and installation of electrical lighting and power in buildings other than dwelling houses.
- The *Contractor* shall ensure that the socket outlets are mounted on the electrical services part of the power skirting and shall comply with the requirements mentioned above.

e) SWITCHED ISOLATORS

- The *Contractor* shall supply, deliver, offload and install switched disconnectors (isolators) as shown in drawing number XDN.E.0037-1-200-E-LA-0001-01-.2. The isolators shall be installed at various heights as shown in drawing number XDN.E.0037-1-200-E-LA-0001-01-.2.
- The *Contractor* shall design, supply, deliver and install SABS approved PVC conduits flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all isolators to the distribution board. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all isolator circuits as shown in drawing XDN.E.0037-1-200-E-LA-0001-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC. The PVC insulated house wire shall be installed in conduit.

f) CABLE AND CABLE WAY SYSTEM

The *Contractor* shall supply, deliver and install 32mm<sup>2</sup> cable which will be chased into the floor and in PVC sleeve pipes

g) UPS

- The Contractor shall design, construct, supply, deliver, offload and install a similar or equal



approved to Eaton, modular, online double conversion, 20kVA , 400V operating voltage UPS system according to Transnet Specification TPD-011-UPSSPEC.

- The UPS Panel shall contain the following signage
- The description of the panel (LV Switchgear 400V UPS supply).
- The kVA rating of the UPS system
- The in-going and out-going cable description (Copper PVC insulated ECC, SWA cable), the size in mm<sup>2</sup>
- Hazardous disclaimer for battery cabinet
- Danger sign for electrical power exposure.

#### 4.3.8.2 Ground Floor Mezzanine Parking

This works information shall be read in conjunction with the drawings listed in section 6.4.9, SANS standards, codes of practice, and Transnet specifications listed herein this document.

All works to be carried out shall be performed with full adherence to safe practice of electrical installations as stipulated in SANS 10142-1, SANS 10142-2 and OHS Act 85 of 1993 (Electrical Installation Regulation)

##### a) DISTRIBUTION BOARD B

- The Contractor shall design, construct, supply, deliver, offload, install and commission Distribution Board DB-B in the Ground Floor Mezzanine Parking . The distribution board shall be surface mounted on the wall, made of 3CR12 type material with a thickness of 1.6mm, paint type shall be powder coated at 40 microns as shown in drawing number XDN.E.0037-1-200-E-LA-0006-01-.2. The Contractor shall conform to the paint colours indicated in drawing number XDN.E.0037-1-200-E-LA-0006-01-.2. The supply cable to the distribution board shall be bottom entry. Cableways shall be built or installed in sleeves and cable ladder.
- The Distribution Board shall contain the following signage:
- Name of the Distribution Board as indicated in drawing number XDN.E.0037-1-200-E-LA-0006-01-.2 ("Distribution Board DB-B").

- The rated Voltage level of the Distribution Board
- The rated Short Circuit Current in all different sections of the distribution board
- The rated current in different sections of the distribution board
- Description of circuits fed by the associated circuit breaker as indicated in drawing number XDN.E.0037-1-200-E-LA-0006-01-.2
- Full description of the type of cable (Copper PVC insulated ECC, SWA), the size in mm<sup>2</sup> of the cable terminated in the associated circuit breaker and the cable run length to the load
- 
- Danger sign in all sections of the Distribution board.

#### b) LIGHTING INSTALLATION

The Contractor shall uninstall existing luminaires and issue the removed items to the TNPA maintenance manager at the TNPA Power Supplies and Services Depot (1 Kuwait road). The Contractor shall inspect and test all existing wiring and circuitry. Damaged wires shall be replaced.

- The Contractor shall supply and install luminaries as shown on drawing 4XDN.E.0037-1-200-E-LA-0004-01-.2. The Contractor shall design, supply, deliver and install SABS approved, PVC conduit surface mounted in the slab. The PVC conduit shall be used as a wireway, linking all surface mounted 4x2 PVC boxes to the distribution board and luminaires. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.
- The Contractor shall supply, deliver, offload and install SABS approved PVC insulated house wire for all lighting circuits as shown in drawing XDN.E.0037-1-200-E-LA-0004-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC.
- All luminaires shall be installed according to SANS 10142-1 and specification No. TPD-001-EL&PSPEC; Specification for electrical installations to buildings other than dwelling houses.
- All electrical works pertaining to the electrical lighting should be done in accordance with the referenced drawing, if clarity is needed in any regard the electrical engineer should be contacted prior to any commencement of work.

#### c) SWITCHED SOCKET OUTLETS

- The Contractor shall supply and install switched socket outlets as shown on drawing number XDN.E.0037-1-200-E-LA-0005-01-.2.
- The power supply to the socket outlet shall be installed in existing PVC conduits recessed into the wall or slabs, unless otherwise stated. The mounting height for the power points is as specified in the drawing.
- The conduit droppers and the socket outlet boxes if required shall be cast into concrete and built into brick walls. All conduit terminations to socket outlet boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All PVC conduits, couplers, male adaptors, boxes and PVC adhesives shall be SABS approved.
- All socket outlets shall be installed according SANS 10142-1 and specification No. TPD: 001-EL&PSPEC; Technical specification for the supply and installation of electrical lighting and power in buildings other than dwelling houses.
- The Contractor shall ensure that the socket outlets are mounted on the electrical services part of the power skirting and shall comply with the requirements mentioned above.

#### 4.5.8.2 First Floor

This works information shall be read in conjunction with the drawings listed in section 6.4.9, SANS standards, codes of practice, and Transnet specifications listed herein this document. All works to be carried out shall be performed with full adherence to safe practice of electrical installations as stipulated in SANS 10142-1, SANS 10142-2 and OHS Act 85 of 1993 (Electrical Installation Regulations).

#### a) DISTRIBUTION BOARD C

- The Contractor shall design, construct, supply, deliver, offload, install and commission Distribution Board DB-C on the First Floor. The distribution board shall be surface mounted on the wall, made of 3CR12 type material with a thickness of 1.6mm, paint type shall be powder coated at 40 microns as shown in drawing number XDN.E.0037-1-200-E-LA-1003-01-.2. The Contractor shall conform to the paint colours indicated in drawing number XDN.E.0037-1-200-

E-LA-1003-01-.2. The supply cable to the distribution board shall be bottom entry. Cableways shall be built or installed in sleeves and cable ladder.

- The Distribution Board shall contain the following signage:
- The Distribution Board shall contain the following signage:
- Name of the Distribution Board as indicated in drawing number XDN.E.0037-1-200-E-LA-1003-01-.2 ("Distribution Board DB-C").
- The rated Voltage level of the Distribution Board
- The rated Short Circuit Current in all different sections of the distribution board
- The rated current in different sections of the distribution board
- Description of circuits fed by the associated circuit breaker as indicated in drawing number XDN.E.0037-1-200-E-LA-1003-01-.2
- Full description of the type of cable (Copper PVC insulated ECC, SWA), the size in mm<sup>2</sup> of the cable terminated in the associated circuit breaker and the cable run length to the load.
- Danger sign in all sections of the Distribution board.

#### b) LIGHTING INSTALLATION

The *Contractor* shall uninstall existing luminaires and issue the removed items to the TNPA maintenance manager at the TNPA Power Supplies and Services Depot (1 Kuwait road). The Contractor shall inspect and test all existing wiring and circuitry.

- The *Contractor* shall supply and install luminaires as shown on drawing XDN.E.0037-1-200-E-LA-1001-01-.2. The Contractor shall design, supply, deliver and install SABS approved, PVC conduit flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all flush mounted 4x2 PVC boxes to the distribution board and luminaires. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.

- The *Contractor* shall supply and install LED strip lighting as per drawing XDN.E.0037-1-200-E-LA-1001-01-.2. The *Contractor* shall conform to the necessary requirements when installing the LED strips in the ceiling.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all lighting circuits as shown in drawing XDN.E.0037-1-200-E-LA-1001-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC.
- The light switch boxes and the conduit droppers if required shall be recessed into the wall, unless otherwise stated. All conduit terminations to light switch boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All luminaires shall be installed according to SANS 10142-1 and specification No. TPD-001-EL&PSPEC; Specification for electrical installations to buildings other than dwelling houses.
- The *Contractor* shall supply, deliver, and install occupancy sensors as detailed in drawing number XDN.E.0037-1-200-E-LA-1001-01-.2. The time delay DIP switch setting on the occupancy sensors shall be set at thirty (30) minutes.
- All electrical works pertaining to the electrical lighting should be done in accordance with the referenced drawing, if clarity is needed in any regard the electrical engineer should be contacted prior to any commencement of work.

#### c) LIGHT SWITCHES

- The *Contractor* shall supply, deliver and install light switches as shown on drawing number XDN.E.0037-1-200-E-LA-1001-01-.2.
- The *Contractor* shall supply, deliver and install RGBW LED Controller's for the LED strip lighting as shown on drawing number XDN.E.0037-1-200-E-LA-1001-01-.2.

#### d) SWITCHED SOCKET OUTLETS

- The *Contractor* shall supply and install switched socket outlets as shown on drawing number XDN.E.0037-1-200-E-LA-1002-01-.2.
- The *Contractor* shall retain and re-use existing socket outlet circuitry where stated and shown in drawing XDN.E.0037-1-200-E-LA-1002-01-.2.

- The power supply to the socket outlet shall be installed in existing PVC conduits recessed into the wall or slabs, unless otherwise stated. The mounting height for the power points is as specified in the drawing.
- The conduit droppers and the socket outlet boxes if required shall be cast into concrete and built into brick walls. All conduit terminations to socket outlet boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All PVC conduits, couplers, male adaptors, boxes and PVC adhesives shall be SABS approved.
- All socket outlets shall be installed according SANS 10142-1 and specification No. TPD: 001-EL&PSPEC; Technical specification for the supply and installation of electrical lighting and power in buildings other than dwelling houses.
- The *Contractor* shall ensure that the socket outlets are mounted on the electrical services part of the power skirting and shall comply with the requirements mentioned above.

#### e) SWITCHED ISOLATORS

- The *Contractor* shall supply, deliver, offload and install switched disconnectors (isolators) as shown in drawing number XDN.E.0037-1-200-E-LA-1002-01-.2. The isolators shall be installed at various heights as shown in drawing number XDN.E.0037-1-200-E-LA-1002-01-.2.
- The *Contractor* shall design, supply, deliver and install SABS approved PVC conduits flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all isolators to the distribution board. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all isolator circuits as shown in drawing XDN.E.0037-1-200-E-LA-1002-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC. The PVC insulated house wire shall be installed in conduit.

#### f) UPS

- The *Contractor* shall design, construct, supply, deliver, offload and install a similar or equal approved to Eaton, modular, online double conversion, 20kVA , 400V operating voltage UPS system according to Transnet Specification TPD-011-UPSSPEC.
- The UPS Panel shall contain the following signage

- The description of the panel (LV Switchgear 400V UPS supply).
- The kVA rating of the UPS system
- The in-going and out-going cable description (Copper PVC insulated ECC, SWA cable), the size in mm<sup>2</sup>
- Hazardous disclaimer for battery cabinet
- Danger sign for electrical power exposure.

#### 4.5.8.3 Second Floor

This works information shall be read in conjunction with the drawings listed in section 6.4.9, SANS standards, codes of practice, and Transnet specifications listed herein this document. All works to be carried out shall be performed with full adherence to safe practice of electrical installations as stipulated in SANS 10142-1, SANS 10142-2 and OHS Act 85 of 1993 (Electrical Installation Regulations).

##### a) DISTRIBUTION BOARD

- The *Contractor* shall design, construct, supply, deliver, offload, install and commission Distribution Board DB-D in the Second Floor. The distribution board shall be surface mounted on the wall, made of 3CR12 type material with a thickness of 1.6mm, paint type shall be powder coated at 40 microns as shown in drawing number XDN.E.0037-1-200-E-LA-2003-01-.2. The Contractor shall conform to the paint colours indicated in drawing number XDN.E.0037-1-200-E-LA-2003-01-.2. The supply cable to the distribution board shall be bottom entry. Cableways shall be built or installed in sleeves and cable ladder.
- The Distribution Board shall contain the following signage:
  - Name of the Distribution Board as indicated in drawing number XDN.E.0037-1-200-E-LA-2003-01-.2 ("Distribution Board DB-D").
- The rated Voltage level of the Distribution Board
- The rated Short Circuit Current in all different sections of the distribution board
- The rated current in different sections of the distribution board
- Description of circuits fed by the associated circuit breaker as indicated in drawing number XDN.E.0037-1-200-E-LA-2003-01-.2
- Full description of the type of cable (Copper PVC insulated ECC, SWA), the size in mm<sup>2</sup> of the cable terminated in the associated circuit breaker and the cable run length to the load.
- Danger sign in all sections of the Distribution board.



## b) LIGHTING INSTALLATION

The *Contractor* shall uninstall existing luminaires and issue the removed items to the TNPA maintenance manager at the TNPA Power Supplies and Services Depot (1 Kuwait road). The Contractor shall inspect and test all existing wiring and circuitry.

- The *Contractor* shall supply and install luminaires as shown on drawing XDN.E.0037-1-200-E-LA-2001-01-.2. The Contractor shall design, supply, deliver and install SABS approved, PVC conduit flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all flush mounted 4x2 PVC boxes to the distribution board and luminaires. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.
- The *Contractor* shall supply and install LED strip lighting as per drawing XDN.E.0037-1-200-E-LA-2001-01-.2. The Contractor shall conform to the necessary requirements when installing the LED strips in the ceiling.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all lighting circuits as shown in drawing XDN.E.0037-1-200-E-LA-2001-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC.
- The light switch boxes and the conduit droppers if required shall be recessed into the wall, unless otherwise stated. All conduit terminations to light switch boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All luminaires shall be installed according to SANS 10142-1 and specification No. TPD-001-EL&PSPEC; Specification for electrical installations to buildings other than dwelling houses.
- The *Contractor* shall supply, deliver, and install occupancy sensors as detailed in drawing number XDN.E.0037-1-200-E-LA-2001-01-.2. The time delay DIP switch setting on the occupancy sensors shall be set at thirty (30) minutes.
- All electrical works pertaining to the electrical lighting should be done in accordance with the referenced drawing, if clarity is needed in any regard the electrical engineer should be contacted prior to any commencement of work.

## c) LIGHT SWITCHES

- The *Contractor* shall supply, deliver and install light switches as shown on drawing number XDN.E.0037-1-200-E-LA-2001-01-.2.
- The *Contractor* shall supply, deliver and install RGBW LED Controller's for the LED strip lighting as shown on drawing number XDN.E.0037-1-200-E-LA-2001-01-.2.



#### d) SWITCHED SOCKET OUTLETS

- The *Contractor* shall supply and install switched socket outlets as shown on drawing number XDN.E.0037-1-200-E-LA-2002-01-.2.
- The *Contractor* shall retain and re-use existing socket outlet circuitry where stated and shown in drawing XDN.E.0037-1-200-E-LA-2002-01-.2.
- The power supply to the socket outlet shall be installed in existing PVC conduits recessed into the wall or slabs, unless otherwise stated. The mounting height for the power points is as specified in the drawing.
- The conduit droppers and the socket outlet boxes if required shall be cast into concrete and built into brick walls. All conduit terminations to socket outlet boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All PVC conduits, couplers, male adaptors, boxes and PVC adhesives shall be SABS approved.
- All socket outlets shall be installed according SANS 10142-1 and specification No. TPD: 001-EL&PSPEC; Technical specification for the supply and installation of electrical lighting and power in buildings other than dwelling houses.
- The *Contractor* shall ensure that the socket outlets are mounted on the electrical services part of the power skirting and shall comply with the requirements mentioned above.

#### e) SWITCHED ISOLATORS

- The *Contractor* shall supply, deliver, offload and install switched disconnectors (isolators) as shown in drawing number XDN.E.0037-1-200-E-LA-2002-01-.2. The isolators shall be installed at various heights as shown in drawing number XDN.E.0037-1-200-E-LA-2002-01-.2
- The *Contractor* shall design, supply, deliver and install SABS approved PVC conduits flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all isolators to the distribution board. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all isolator circuits as shown in drawing XDN.E.0037-1-200-E-LA-2002-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC. The PVC insulated house wire shall be installed in conduit.

#### f) UPS

- The Contractor shall design, construct, supply, deliver, offload and install a similar or equal approved to Eaton, modular, online double conversion, 20kVA , 400V operating voltage UPS system according to Transnet Specification TPD-011-UPSSPEC.
- The UPS Panel shall contain the following signage

- The description of the panel (LV Switchgear 400V UPS supply).
- The kVA rating of the UPS system
- The in-going and out-going cable description (Copper PVC insulated ECC, SWA cable), the size in mm<sup>2</sup>
- Hazardous disclaimer for battery cabinet
- Danger sign for electrical power exposure.

#### 4.5.8.4 Third Floor

This works information shall be read in conjunction with the drawings listed in section 6.4.9, SANS standards, codes of practice, and Transnet specifications listed herein this document.

All works to be carried out shall be performed with full adherence to safe practice of electrical installations as stipulated in SANS 10142-1, SANS 10142-2 and OHS Act 85 of 1993 (Electrical Installation Regulations).

##### a) DISTRIBUTION BOARD

- The *Contractor* shall design, construct, supply, deliver, offload, install and commission Distribution Board DB-E in the Third Floor. The distribution board shall be surface mounted on the wall, made of 3CR12 type material with a thickness of 1.6mm, paint type shall be powder coated at 40 microns as shown in drawing number XDN.E.0037-1-200-E-LA-3003-01-.2. The Contractor shall conform to the paint colours indicated in drawing number XDN.E.0037-1-200-E-LA-3003-01-.2. The supply cable to the distribution board shall be bottom entry. Cableways shall be built or installed in sleeves and cable ladder.
- The Distribution Board shall contain the following signage:
- Name of the Distribution Board as indicated in drawing number XDN.E.0037-1-200-E-LA-3003-01-.2 ("Distribution Board DB-E").
- Naming of the different sections of the Distribution Board i.e. Non-Essential Supply or Essential Supply and UPS Supply.
- The rated Voltage level of the Distribution Board
- The rated Short Circuit Current in all different sections of the distribution board
- The rated current in different sections of the distribution board
- Description of circuits fed by the associated circuit breaker as indicated in drawing number XDN.E.0037-1-200-E-LA-3003-01-.2
- Full description of the type of cable (Copper PVC insulated ECC, SWA), the size in mm<sup>2</sup> of the cable terminated in the associated circuit breaker and the cable run length to the load.

- Danger sign in all sections of the Distribution board.

#### b) LIGHTING INSTALLATION

The *Contractor* shall uninstall existing luminaires and issue the removed items to the TNPA maintenance manager at the TNPA Power Supplies and Services Depot (1 Kuwait road). The Contractor shall inspect and test all existing wiring and circuitry.

- The *Contractor* shall supply and install luminaires as shown on drawing XDN.E.0037-1-200-E-LA-3001-01-.2. The Contractor shall design, supply, deliver and install SABS approved, PVC conduit flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all flush mounted 4x2 PVC boxes to the distribution board and luminaires. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.
- The *Contractor* shall supply and install LED strip lighting as per drawing XDN.E.0037-1-200-E-LA-3001-01-.2 The Contractor shall conform to the necessary requirements when installing the LED strips in the stretch ceiling.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all lighting circuits as shown in drawing XDN.E.0037-1-200-E-LA-3001-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC.
- The light switch boxes and the conduit droppers if required shall be recessed into the wall, unless otherwise stated. All conduit terminations to light switch boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All luminaires shall be installed according to SANS 10142-1 and specification No. TPD-001-EL&PSPEC; Specification for electrical installations to buildings other than dwelling houses.
- The *Contractor* shall supply, deliver, and install occupancy sensors as detailed in drawing number XDN.E.0037-1-200-E-LA-3001-01-.2. The time delay DIP switch setting on the occupancy sensors shall be set at thirty (30) minutes.
- All electrical works pertaining to the electrical lighting should be done in accordance with the referenced drawing, if clarity is needed in any regard the electrical engineer should be contacted prior to any commencement of work.

#### c) LIGHT SWITCHES

- The *Contractor* shall supply, deliver and install light switches as shown on drawing number XDN.E.0037-1-200-E-LA-3001-01-.2.
- The *Contractor* shall supply, deliver and install RGBW LED Controller's for the LED strip lighting as shown on drawing number XDN.E.0037-1-200-E-LA-3001-01-.2.

#### d) SWITCHED SOCKET OUTLETS

- The *Contractor* shall supply and install switched socket outlets as shown on drawing number XDN.E.0037-1-200-E-LA-3002-01-.2.

- The *Contractor* shall retain and re-use existing socket outlet circuitry where stated and shown in drawing XDN.E.0037-1-200-E-LA-3002-01-.2.
- The power supply to the socket outlet shall be installed in existing PVC conduits recessed into the wall or slabs, unless otherwise stated. The mounting height for the power points is as specified in the drawing.
- The conduit droppers and the socket outlet boxes if required shall be cast into concrete and built into brick walls. All conduit terminations to socket outlet boxes shall be done using a PVC male adaptor and a suitable PVC washer.
- All PVC conduits, couplers, male adaptors, boxes and PVC adhesives shall be SABS approved.
- All socket outlets shall be installed according to SANS 10142-1 and specification No. TPD: 001-EL&PSPEC; Technical specification for the supply and installation of electrical lighting and power in buildings other than dwelling houses.
- The *Contractor* shall ensure that the socket outlets are mounted on the electrical services part of the power skirting and shall comply with the requirements mentioned above.

e) SWITCHED ISOLATORS

- The *Contractor* shall supply, deliver, offload and install switched disconnectors (isolators) as shown in drawing number XDN.E.0037-1-200-E-LA-3002-01-.2. The isolators shall be installed at various heights as shown in drawing number XDN.E.0037-1-200-E-LA-3002-01-.2.
- The *Contractor* shall design, supply, deliver and install SABS approved PVC conduits flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all isolators to the distribution board. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc shall be included to ensure a safe neat link for the conduit system.
- The *Contractor* shall supply, deliver, offload and install SABS approved PVC insulated house wire for all isolator circuits as shown in drawing XDN.E.0037-1-200-E-LA-3002-01-.2. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC. The PVC insulated house wire shall be installed in conduit.

f) UPS

- The Contractor shall design, construct, supply, deliver, offload and install a similar or equal approved to Eaton, modular, online double conversion, 20kVA, 400V operating voltage UPS system according to Transnet Specification TPD-011-UPSSPEC.
- The UPS Panel shall contain the following signage
- The description of the panel (LV Switchgear 400V UPS supply).
- The kVA rating of the UPS system
- The in-going and out-going cable description (Copper PVC insulated ECC, SWA cable), the size in mm<sup>2</sup>

- Hazardous disclaimer for battery cabinet
- Danger sign for electrical power exposure.

#### 4.5.9 LIST OF DRAWINGS

##### 4.5.9.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Drawing Number	Revision	Title
XDN.E.0037-1-200-E-LA-0001-01-.2	.2	Ground Floor Lighting Layout
XDN.E.0037-1-200-E-LA-0002-01-.2	.2	Ground Floor Power Layout
XDN.E.0037-1-200-E-LA-0003-01-.2	.2	Main Distribution Board DB-M
XDN.E.0037-1-200-E-LA-0004-01-.2	.2	Ground Floor Mezzanine Lighting Layout
XDN.E.0037-1-200-E-LA-0005-01-.2	.2	Ground Floor Mezzanine Lighting Layout
XDN.E.0037-1-200-E-LA-0006-01-.2	.2	Distribution Board DB-A and DB-B
XDN.E.0037-1-200-E-LA-0007-01-.2	.2	Supply Power and Cable Route Layout
XDN.E.0037-1-200-E-LA-1001-01-.2	.2	First Floor Lighting Layout
XDN.E.0037-1-200-E-LA-1002-01-.2	.2	First Floor Power Layout
XDN.E.0037-1-200-E-LA-1003-01-.2	.2	Distribution Board DB-C
XDN.E.0037-1-200-E-LA-2001-01-.2	.2	Second Floor Lighting Layout
XDN.E.0037-1-200-E-LA-2002-01-.2	.2	Second Floor Power Layout
XDN.E.0037-1-200-E-LA-2003-01-.2	.2	Distribution Board DB-D
XDN.E.0037-1-200-E-LA-3001-01-.2	.2	Second Floor Lighting Layout
XDN.E.0037-1-200-E-LA-3001-01-.2	.2	Second Floor Power Layout
XDN.E.0037-1-200-E-LA-3001-01-.2	.2	Distribution Board DB-E

TRANSNET NATIONAL PORTS AUTHORITY

CONTRACT NUMBER: TNPA/2023/08/0007/37982/RFP

DESCRIPTION OF THE *WORKS*: REFURBISHMENT OF 45 BAY TERRACE BUILDING



## **ANNEXURE C**

### **CIVIL ENGINEERING WORKS INFORMATION**

### 4.3 Civil Engineering Works

This scope of work covers all civil aspects relating to 45 Bay Terrace upgrades.

#### 4.3.1 Supporting specifications

All work done, and materials supplied, must conform to the requirements of the relevant standards AND specifications, not necessarily comprehensive, as set out in the following schedules:

Title	Document No.	Revision/Date
Earthworks (general)	SANS 2001-BE1	*
Site Clearance	SANS 2001-BS1	*
Concrete Works (Structural)	SANS 2001-CC1	*
Concrete Works (Minor works)	SANS 2001-CC2	*
Masonry walling	SANS 2001-CM1	*
Earthworks for buried pipelines and prefabricated culverts	SANS 2001-DP1	*
Medium Pressure Pipelines	SANS 2001-DP2	*
Cable Ducts	SANS 2001-DP3	*
Sewers	SANS 2001-DP4	*
Stormwater Drainage	SANS 2001-DP5	*
Below-ground water installations	SANS 2001-DP6	*
Sewers for buildings	SANS 2001-DP7	*
Cement plaster	SANS 2001-EM1	*
Joinery	SANS 2001-EJ	*
Road (general)	SANS 1200-M	*
Subbase	SANS 1200-ME	*
Base	SANS 1200-MF	*
Segmented paving	SANS 1200-MJ	*
Kerbing and channelling	SANS 1200-MK	*
Ancillary roadworks	SANS 1200-MM	*



#### **4.3.2 Site clearance, earthworks and layerworks**

##### **4.3.2.1 Scope of Work**

The *works* for the site clearance, earthworks and layer works include the following:

- Exposing of existing services, where indicated by the *Project Manager*.

and any other work arising out of or incidental to the above, or required of the *Contractor* for the proper completion of the *works*.

##### **4.3.2.2 Exposing existing services**

A multitude of services are known to exist over the whole area of the *works* and based on the information available general layout plan indicating services have been prepared. Prior to commencing work in any area, the *Contractor* shall consult the *Project Manager* regarding the location of services and shall assist him when required in locating the exact position and depths of services by means of proof trenching. The location and depth of all services discovered by the foregoing investigations shall be recorded and plotted by the *Contractor* on an "as-built" copy of the services plan.

The *Contractor* shall assist when required in alterations to services by providing labour, plant and material and shall carry out the necessary work as instructed by the *Project Manager*.

Claims for extension of time as a result of existing services will NOT be entertained if the operation of locating and/or protecting services is less than two weeks ahead of construction.

Responsibility for protection of all known services shall rest solely with the *Contractor* and he shall bear all costs, which may arise as a result of any damage which he may cause to such services, or which may arise as a result of his operations.

##### **4.3.2.3 Disposal of material**

The excavated material is required to be carted to a spoil site of the *Contractor's* choice. The nature of the material varies. All vegetation, trees, etc. resulting from site clearance (where applicable) shall be removed off site to a disposal dump to be selected by the *Contractor*. The haulage, dump costs and any levies etc. shall be deemed to be included in his tendered rates. Burning of materials on site shall not be permitted.

### **4.3.3 Cable ducts – Bay Terrace**

#### **4.3.3.1 Scope of Work**

The *works* for the cable ducts include the following:

- Excavation, bedding and backfill for cable ducts.
- Supply and lay uPVC – Class 34 (SANS 791) pipes.
- Laying of cable duct markers.
- Construction of electrical manholes.

And any other work arising out of or incidental to the above, or required of the *Contractor* for the proper completion of the *works*.

#### **4.3.3.2 Materials**

Electrical cable ducts shall consist of the indicated number and size of hard setting durable plastic pipes.

#### **4.3.3.3 Construction**

##### **4.3.3.3.1 Laying**

Unless otherwise directed by the *Supervisor*, the ducts shall be laid as shown on the drawings.

##### **4.3.3.3.2 Depth, position and marking of ducts**

###### **4.3.3.3.2.1 Electrical Cable Ducts**

All electrical cable ducts are to be laid approximately 800mm below finished road level and the pipes must protrude 500mm beyond the edge of the hardened roadway or stormwater drain. Both ends of each duct must be sealed with an end cap. The position of each duct crossing shall be indicated on site using suitable markers.

Draw wires must be provided in each duct and duct ends must be sealed with suitable stoppers. A double strand copper wire of at least 2,8mm<sup>2</sup> cross section that will serve as a screen and is to be installed approximately 200mm above all ducts over its entire length.

###### **4.3.3.3.2.2 Electrical manholes**

All brickwork shall be built in manhole bond i.e., stretchers only on the inside face, using cement mortar as specified. Bricks shall be well soaked before use and the previous course shall be wetted before bricks are laid thereon. All joints on the internal face (and the external face above ground) shall be half round recessed and shall be well rubbed with a standard jointing tool of suitable size to ensure that the entire exposed surface on the joint presents a smooth and polished appearance. Intersecting walls shall be properly toothed with each other and all angles levelled and plumbed. Should cement bricks be utilised, then all internal surfaces shall be plastered with a 12mm thick 3:1 cement sand mortar mix.

When brick built' manholes are constructed in wet ground, the external surfaces shall be rendered with 12mm thick 3:1 cement sand mortar mix.

#### 4.3.4 Concrete works

##### 4.3.4.1 Scope of work

The scope of work for concrete works shall include for the delivery to site of all materials necessary to complete the *works*, off-loading on site, storage on-site, setting out, installation, testing, commissioning and handover.

The *works* includes for the following:

- Construction of electrical manhole slabs
- Construction of kerbs and channels
- Earthworks, including excavation, dewatering, preparation of base and foundations
- Reinforcing and formwork
- Casting of concrete

And any other work arising out of or incidental to the above, or required of the *Contractor* for the proper completion of the *works*.

##### 4.3.4.2 Supporting specifications

The following specifications shall apply:

(NB: All in situ concrete work (mass and reinforced) shall comply with SANS Specification 1200G ("8 Measurement and Payment" is not applicable) supplemented by the clauses in this section. Where SANS Specification 1200G and the clauses in this section are in conflict, the clauses in this section shall take precedence.)

In addition, the "Model Preambles for Trades" as recommended and published by the Association of South African Quantity Surveyors, 1999 Edition, shall be read in conjunction with and shall apply to all items in the Bill of Quantities not covered by the 'SANS Standardised Specifications' SANS 1200 Series.

Where the term "plain concrete" appears in SANS Specification 1200G it shall be read as "mass concrete".

SANS (and Other) Specifications	
SANS 1200 G	Concrete
SANS 1200 LE	Stormwater Drainage
SANS 2001: CC1	Construction Works: concrete works (Structural)

SANS 2001: CC2	Construction Works: concrete works (minor works)
SANS 1083:2006	Aggregates from Natural Sources
SANS 10100-2:2000	Structural Use of Concrete – Materials and Execution of Work
SANS 50197-1:2000	Cement – Composition, Specifications and Conformity Criteria Pt1: Common Cements
SANS 1491-1: 2005	Portland Cement Extenders Pt1 – Ground Granulated Blast Furnace Slag
SANS 1491-2: 2005	Portland Cement Extenders Pt1 – Fly Ash
SANS 1491-3: 2006	Portland Cement Extenders Pt1 – Condensed Silica Fume
S420 (1999)	Concrete Work (Transnet)

#### 4.3.4.3 Cementitious binders

Cements, complying with SANS 50197-1 shall be used for all concrete work. The use of masonry cements shall not be allowed.

#### 4.3.4.4 Coastal zone

Where the *Works* is within one kilometre from the sea, one or more of the following cementitious binders shall be used in all concrete applications.

- Blast furnace cement, Type III/A, certified as containing not less than 40% and not more than 50% milled granulated blast furnace slag (MGBS), or
- A blend of Type 1 Portland cement with not less than 40% and not more than 50% MGBS. MGBS shall comply with SANS 1491 Part 1., or
- Fly ash cement Type II/B-V or Portland fly ash cement Type II/B-W, certified as containing not less than 25% and not more than 30% fly ash shall comply with SANS 1491 Part 2.

#### 4.3.4.5 Alkali reactive concrete

Alkali Reactive Aggregates shall not be used in this project. The equivalent  $\text{Na}_2\text{O}$  content of the concrete shall not exceed  $2,0 \text{ kg/m}^3$  where  $\% \text{Na}_2\text{O equivalent} = \% \text{Na}_2\text{O} + (0,658 \times \% \text{K}_2\text{O})$

#### 4.3.4.6 Aggregates

Fine and coarse aggregate shall comply with the relevant clauses of SANS 1083.

If required by the *Project Manager*, the *Contractor* shall submit 40kg samples for approval at least 6 weeks prior to the start of concrete construction. No aggregate shall be delivered for use in the *works* until approval is given.

#### **4.3.4.7 Admixtures**

Admixtures containing chlorides will not be permitted in reinforced concrete. Where applicable, and as indicated on the drawings, water-retaining structures shall have 'Penetron Admix' as an additive to the concrete mix to 0.8% of cement content by weight by a certified Penetron batching plant.

#### **4.3.4.8 Cover blocks**

Cover blocks used to ensure the cover to reinforcement shall be made of cement mortar.

Cover blocks shall be dense and have a minimum 28 day crushing strength of 50 MPa and shall be cured in water for at least 14 days before being used.

Cover/spacer blocks made of plastic will not be permitted.

#### **4.3.4.9 Concrete quality**

The *Contractor* shall submit a quality assurance plan which will ensure compliance with specification and provide acceptable documentary evidence that all specified operations have been carried out satisfactorily.

Where the minimum dimension to be placed during a single pour is larger than 600mm, and the cement content of the reinforced concrete exceeds the following:

- Cement Types I and II/ \* S: 400 kg/m<sup>3</sup>
- Cement Types II/B-V and II/B-W: 450 kg/m<sup>3</sup>

The *Project Manager* may require that measures be instituted to reduce heat development in the concrete.

#### **4.3.4.10 Batching**

All cementitious binders shall be batched by full sack or by mass batching with approved precision weighing equipment.

All aggregates shall be precisely measured by mass using approved precision weigh-batching equipment, unless otherwise approved by the *Project Manager*.

Should any variation in the composition of the aggregate become apparent, the *Project Manager* shall be notified and a further sample of aggregate submitted immediately for his approval.

#### **4.3.4.11 Concrete placing**

The *Supervisor* shall approve the size, shape and depth of any excavation before concrete is placed.

Unless otherwise approved by the *Supervisor*, no concrete shall be placed until the fixed reinforcement has been accepted and confirmed in writing by a Release Certificate signed off by:

- The *Supervisor*

- The Surveyor - It shall be the responsibility of the *Contractor* to call the Surveyor prior to pouring concrete to verify and confirm all levels, co-ordinates and alignment of the structure to be cast.

No concrete shall be placed unless both the above signatories appear on the Pour Release Certificate.

#### **4.3.4.12 Construction Joints**

Unless otherwise shown on the drawings, the exact position of horizontal construction joints shall be marked on the formwork by means of grout checks in order to obtain truly horizontal joints.

Stub columns, stub walls and stays on footings shall be cast integrally with the footing and not afterwards, even where another class of concrete is being used.

Joint lines shall be so arranged that they coincide with features of the finished work.

Where new concrete is to be cast against a hardened concrete surface, neat cement slurry mixed to a creamy consistency shall be brushed onto the cleaned concrete surface.

Contraction joints shall be smooth and shall have one coat of lime wash or PVA applied to the older surface prior to casting the fresher concrete.

#### **4.3.4.13 Finishes**

Classification of finishes (Sub clause 5.2.1) - The surface condition required on all exposed finished concrete shall be smooth.

#### **4.3.4.14 Curing Compound**

Unless otherwise directed by the *Project Manager*, the curing compound shall be:

- An approved trafficable, resin-based, white pigmented, membrane forming for slopes flatter than 1:1.
- An approved clear, aesthetically acceptable, membrane forming for all other concrete surfaces, including beam and slab soffits.

The curing compound shall comply with specification ASTM C309, except that the maximum permissible water loss in the test shall be 0,40 kg/m<sup>2</sup>.

Alternatively, the curing compound shall be acceptable if the treated concrete retains 90% or more of its mixing water when subject to the test set out in BS 8110 Part 1 – Chapter 6.6.

#### **4.3.4.15 Curing Compound Application**

The total application rate of the curing compound shall be the greater of the supplier's specification or 0,90 l/m<sup>2</sup>. On textured concrete surfaces, the total application rate shall be 0,90 l/m<sup>2</sup>.

In cases of concrete surfaces with run-off problems, it may be necessary to apply more than one coat of membrane forming curing compound to obtain the specified total or cumulative application rate.

Curing in accordance with SABS 1200 G shall commence on all concrete surfaces as soon as it is practical in the opinion of the *Supervisor*.

On unformed surfaces the curing compound shall be applied after finishing and as soon as the free water on the surface has disappeared and no water sheen is visible, but not so late that the liquid curing compound will be absorbed into the concrete.

On formed surfaces, the exposed concrete shall be wet with water immediately after the forms are removed and kept moist until the curing compound is applied.

Application of the curing compound shall begin once the concrete has reached a uniformly damp appearance with no free water on the surface.

Application of the compound may be done by hand or power spray.

The compound shall be applied at a uniform rate with two applications at right angles to each other to ensure complete coverage.

Pigmented compounds, without a thixotropic agent, shall be adequately stirred to assure even distribution of the pigment during application.

Unless otherwise directed by the *Supervisor*, the initial 24 hour curing of concrete surfaces not covered by formwork shall be carried out by ponding, covering with constantly wetted sand or mats, or continuous spraying in accordance with SABS 1200 G when the following climatic conditions occur:

- Wind velocity greater than 5 m/s and/or
- Ambient temperature is above 25 °C and/or
- The relative humidity is below 60 %

If plastic shrinkage occurs, the concrete, while still plastic, shall be re-vibrated, floated and re-coated with curing compound as if no curing has previously taken place.

#### **4.3.4.16 Curing Period**

The curing period for concrete containing only CEM 1 shall be 7 days.

The curing period for concrete containing CEM 1 plus cement extenders (MGBS, FA) shall be 10 days.

The curing period will start on completion of the concrete pour and for formed surfaces shall include the time for which forms are still in place after the pour.

#### **4.3.4.17 Concrete records**

The *Contractor* shall maintain the following daily records for every part of the concrete structure and shall make these available at all times during the progress of the work for inspection by the *Supervisor* or *Project Manager*.

- The date and time during which concrete was placed
- Identification of the part of the structure in which the concrete was placed
- The mixed proportions and specified strength
- The type and brand of cement
- The slump of the concrete
- The identifying marks of test cubes made
- Curing procedure applied to concrete placed
- The times when shuttering was stripped and props removed
- The date of despatch of the cubes to the testing laboratory
- The test results.

The records shall be delivered to the *Project Manager* each week except in the case of sub-standard concrete, when the *Project Manager* shall be informed immediately.

#### **4.3.4.18 Tolerances**

Deviations shall be within the limits listed in SANS 1200 G for degree of accuracy II unless otherwise specified.

#### **4.3.4.19 Testing and monitoring**

Frequency of sampling and testing shall be as specified in SANS 1200 G.

- If the quantity of concrete from which samples were taken exceeds 40 m<sup>3</sup>, it shall be subject to the testing of a minimum of 3 sets of samples per day from each grade of concrete placed in each independent structure.
- If the quantity of concrete from which samples were taken is less than 40 m<sup>3</sup>, it shall be subject to the testing of a minimum of 2 sets of samples per day from each grade of concrete placed in each independent structure.

#### **4.3.4.20 Formwork (Clause 5.2)**

All exposed concrete corners shall be provided with 20mm x 20mm chamfers.



## 5 LIST OF DRAWINGS

### 5.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Drawing Number	Rev.	Detail
XDN.E.0037-1-200-C-DE-001-01	OA	Electrical manhole details - Mini sub manhole, types E1 & E6

# **ANNEXURE E**

## **MECHANICAL ENGINEERING WORKS**

### **INFORMATION**

## SECTION 1

### 1 Description of the *works*

#### 1.1 Executive overview

#### 1.2 *Employer's* objectives

#### 1.3 Scope of *Works*

##### 1.3.1 *Employer's* Design

The *Employer's* design for the works is being undertaken by the *Employer's* internal design team (except for the passenger lift and supports of the HVAC system). The *Employer's* design for the works is:

- Heating, Ventilation, and Air Conditioning (HVAC) system

##### 1.3.2 *Contractor's* Design

The *Contractor* is to design the following parts of the *works*, for approval by the *Employer's* Project Manager:

- Plant, pipe and cable Supports, bases and plinths that are required for a complete installation of the HVAC system.
- Passengers lift as per the technical specifications and the relevant standards. The *Contractor* shall be responsible for ensuring that the lift is inspected by an approved and competent lift inspector and a clearance/compliance certificate is issued.

##### 1.3.3 Mechanical Engineering Scope of work

The detailed *works* to be carried out by the *Contractor* shall include:

- Complete review of the existing drawings for the building
- Physical Assessment/evaluation of the existing building's HVAC, and passenger lift system. The *Contractor* shall be responsible for the detailed plan and removal of all items that shall be replaced by the new designs. The *Contractor* shall be responsible for the detailed plan and removal of the existing passenger lift and auxiliary equipment.

- The *Contractor's* scope shall include the design and installation of all supporting infrastructure required for the HVAC system. Including but not limited to all structural supports for the HVAC, thrust blocks, and anchoring down supports for the pipeline or bridges, plant bases or plinths, plant supports and fixings for all equipment of the mechanical systems.
- The *Contractor* shall ensure all painting and corrosion protection is designed to comply with the SANS codes, Transnet standards and to meet the environmental conditions.
- All electrical infrastructure such as all control and actuation systems; MCC panels and Electrical Distribution Boards required for the mechanical Plant; and Electrical work including connection to power isolators, wiring between switchboards, unit mounted sensors, control devices, etc. and wiring between controllers and remote sensors, remote set point adjusters, etc. required for the correct working of the systems shall form part of the scope of the *Contractor*.
- The *Contractor* shall provide ECSA approved drawings for all systems that they have designed. The drawings shall be accompanied by all calculations and all drawings shall be provided in both PDF and DWG format. The *Contractor* shall provide workshop drawings for approval prior to ordering of plant and materials.
- The *Contractor* shall supply, construct, test, commission, and hand over, in complete working order, the Air Conditioning, Ventilation system, controls and electrical plant as well as all other systems and plant required as per the accepted designs.
- The *Contractor* shall design, supply, construct, test, commission, and hand over, in complete working order, the passenger lift, auxiliary plant, controls and electrical plant including distribution boards and panels as well as all other systems and plant required as per the accepted designs or technical specifications prepared by the *Contractor*. The *Contractor* shall be responsible for ensuring that the lift is inspected by an approved and competent lift inspector who shall provide a certificate of compliance/clearance certificate for use.

- The *Contractor* shall replace the existing passenger lift with a new passenger lift and ensure that new passenger lift fits into the existing lift shaft. The *Contractor* shall provide the *Employer* with measurements of the critical dimensions that ensure that the passenger lift and auxiliary plant fit in the lift shaft and these measurements must be form part of the technical specification for acceptance by the *Employer's* Engineer prior to any materials and plant being ordered.
- The *Contractor* shall provide a complete set of as-built drawings comprising of the existing as well as new plant and systems in the building. This shall include but not be limited to the Air Conditioning, Ventilation, passenger lift and auxiliary plant, controls, and electrical plant.
- The *Contractor* shall ensure all drawings mentioned in the Works Information, be supplied to the Employer, in both PDF a native DWG format for use on AutoCAD software.
- The *Contractor* shall provide a detailed testing and commissioning plan including all FAT, SAT and Commissioning tests and activities prior to the commencement of any testing activities.
- The *Contractor* shall test and commission the systems in line with the guidelines as per the *Works* Information and technical specifications as well as the manufacturer's requirements, and industry best practices.
- The *Contractor* shall provide 3 hard copies and 2 soft copies (On a USB 64gb Flash drive) of the Operation and Maintenance manuals that will include, but not be limited to, quality certificates and tests conducted during fabrication and installation, all FAT and SAT tests conducted, all commissioning documentation, detailed as built drawings and technical specifications of all plant and systems, operation methodologies and information, maintenance methodologies and information and details of spares and replacement components.
- The *Contractor* shall guarantee all installations and equipment for twelve (12) months after "practical completion" date of the completed installation, or sections thereof. This is the date confirmed in writing by the Project Manager.

#### **1.3.3.1. General**

The *Contractor* shall inform themselves with local site conditions such as safety requirements, access area available on site, type of ground, space available for on-site fabrication, storage, transport, loading and unloading facilities, scaffolding, tackles, and tools needed, as no claims by the *Contractor*, which may arise from ignorance of the site conditions, shall be considered.

#### **1.3.3.2. Standard of Work, Equipment, and Materials**

All equipment and material used shall be of high quality and the work shall be of a high standard of workmanship carried out by qualified staff under proper supervision by experienced and competent officers.

All equipment and material shall comply with the relevant National or International standard specifications. Where equipment does not comply, it shall be submitted to the TNPA mechanical engineer for approval prior to installation.

All installation, testing and termination must be approved by the TNPA Engineer prior to commissioning.

#### **1.3.3.3. Specifications**

The design shall be undertaken using the latest revision of applicable SANS and other relevant standard specifications. The *Contractor* shall employ a registered Professional Engineer to review and sign off all design documents and drawings submitted to the *Employer* for acceptance. The design shall be such that it is built by others to satisfy the functional and serviceability requirements and be cost-effective and safe. Sound Engineering judgment shall be exercised in applying these criteria to the system and its components. The *Contractor* shall communicate with the *Employer* to coordinate all designs, installations, testing and commissioning.

The following publications and specifications (latest edition) shall apply:

SANS 10400	The Application of the National Building Regulations
SANS 50081-1	Safety rules for the construction and installation of lifts Part 1: Electric lifts

SANS 50081-2	Safety rules for the construction and installation of lifts Part 2: Hydraulic lifts
SANS 50081-20	Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 20: Passenger and goods <i>passenger lifts</i>
SANS 50081-21	Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods Part 21: New passenger and goods <i>passenger lifts</i> in existing building
SANS 50081-22	Safety rules for the construction and installation of lifts - Examinations and tests - Part 50: Design rules, calculations, examinations and tests of lift components
SANS 10400-O	Lighting and Ventilation
SANS 10400-XA	Energy Usage in Buildings
SANS 193	Dampers Installation and Testing
EN 15650	Duct Mounted Fire Dampers
SANS 1424	Filters for Use in Air-Conditioning and General Ventilation
SANS 1238	Air Conditioning Ductwork
SANS 10173	The Installation, Testing, and Balancing of Air Conditioning Ductwork
SANS 10147	Refrigerating Systems, Including Plants Associated with Air-Conditioning Systems
SANS 10252	Water Supply and Drainage for Buildings
ASHRAE 55	Thermal Environmental Conditions for Human Occupancy
ASHRAE 62.1	Ventilation for Acceptable Indoor Air Quality

ASHRAE 90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings
ASHRAE 2013	Handbook of Fundamentals
ASHRAE 2012	Handbook HVAC Systems and Equipment
ASHRAE 2011	Handbook HVAC Applications
Occupational Health and Safety Act 85 of 1993.	
The S.A. National Building Regulations and Building Standards Act. (Act 103 of 1977).	
South African National Standards and Codes of Practice.	
IEC Standards and Recommendations.	
International Standards and Codes – ISO, DIN, BS, ASME, ASCE, ANSI, ASTM, EU, NFPA.	
The local, provincial or S.A. Government laws in force at the time.	
Construction Regulations 2014	
National Heritage Resource Act (Act 25 of 1999)	

#### 1.3.3.4. Materials and Workmanship

- The *Contractor* shall ensure all materials shall be of the quality specified and the *Contractor* shall, furnish proof that the materials are of the specified quality. The Engineer is not responsible for Quality Assurance on behalf of The *Contractor* but shall be entitled to condemn unsatisfactory work.
- The *Contractor* shall ensure all materials and equipment used for the installations shall be new and undamaged. The *Contractor* shall, if requested by the Project Manager, provide samples of material and Plant for approval. If judged necessary by the Project Manager, such samples may only be returned after the completion



of the installation, to ensure that the quality of the installed product is the same as that of the approved sample

- Material for which a SABS specification exists, shall be in accordance with such a specification, and shall bear the SABS mark.
- All fire protection Plant used shall originate from suppliers which have been certified in accordance with SABS ISO 9001 (ISO 9001) or SABS ISO 9002 (ISO 9002) for Quality assurance. Copies of certificates of approval shall be provided by the tenderers with their tenders. Plant designed to BS 5446, Fire systems for residential premises, or similar other standards, are not acceptable.

#### **1.3.3.5. Design and Drawings**

- The *Contractor* shall ensure all Plant is positioned and installed in such a way as to ensure proper access for service and maintenance.
- The *Contractor* shall ensure that all control panels, wiring and components of the electrical installation comply with all application safety codes standards and regulations. All electrical works associated with the mechanical plant shall comply with the requirements of electrical works detailed in this document.
- The *Contractor* shall ensure the designs must be cost effective and energy efficient.
- The *Contractor* shall furnish details of any Plant that is other than, or different to, that specified by the Employer's Engineers, to the Supervisor for Approval by the Employer's Engineers. The *Contractor* is prohibited from installing said without the required prior authorization from the Employer's Engineers. The approval shall only apply to the selection of the type of Plant and in doing so, the Employer's Engineers assume no responsibility or accountability for the proper functionality of Plant or associated systems designed by the *Contractor* in any way whatsoever.
- The *Contractor* shall ensure All design calculations and simulations shall be submitted to the Project Manager for acceptance by the Employer's Engineer together with the workshop Drawings. The drawings shall be submitted in PDF as well as DWG formats for all submissions. The *Contractor* shall price in the works for the submission of the calculations and drawings as well as schedule the time for acceptance of all designs and approval of plant type (should there be any deviation from the specifications).

#### **1.3.3.6. Auxiliary Plant, Plant Supports, Bases and Foundations**

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- The *Contractor* shall design all foundations required for mechanical Plant as per the recommendations of the Plant suppliers and to comply with the requirements of the Works Information and Technical Specifications.
- The *Contractor* shall design supports, stands, hangers, and suspended platforms for equipment, tanks or other Plant as required.
- The *Contractor* shall design bases and plinths for all items of plant to comply with the requirements as specified in this document.
- The *Contractor* shall ensure that all designs of foundations, bases and plinths are compatible with the type of floor designed by the Structural Engineers and be able to tie into the floor to provide a continuous surface.
- The *Contractor* shall supply, install, test and commission all auxiliary plant required for the passenger lift as per the recommendations of the Plant suppliers and to comply with the requirements of the Works Information and Technical Specifications.

#### **1.3.3.7. Workshop Drawings**

The *Contractor* shall ensure Preparation of complete workshop drawings is the responsibility of the *Contractor*. The *Contractor* shall submit all workshop drawings for acceptance prior to any materials being ordered. The workshop drawings must be prepared based on:

- The *Contractor* shall ensure the latest Architect's, Structural Engineer's, Civil Engineer's and Electrical Engineer's drawings regarding co-ordination, layout, and design.
- The *Contractor* shall make use of the actual Plant offered in the Tender and Approved by the Project Manager. No work may be put in hand before the relevant workshop drawings have been reviewed by the Project Manager for acceptance. The Employer's responsibility in this regard is limited to checking conformance with the works information and co-ordination with other disciplines where necessary. This does not absolve the *Contractor* of any responsibility in terms of the contract or for errors or omissions in the shop drawings. Comments, amendments, or corrections of shop drawings are not intended to cause any variation in the cost of the work, and
- The *Contractor* shall include time in the schedule for acceptance of workshop drawings and Approval of Plant by the Employer. All workshop drawings submitted shall be signed by an ECSA registered Professional Engineer.
- The workshop drawings shall include but not be limited to the following:
- P&ID showing the entire system layout and plant details.

- Detailed drawings of all plant.
- Plant Specifications, including fixing details and materials.
- Piping schedules.
- Detailed piping drawings, including joint details and positions.
- Welding schedules and weld maps (if applicable).
- Foundation, Plinth and Base details of all plant.
- Corrosion protection specifications for all plant and materials.
- Cable schedules; and
- General arrangement drawings and component lists for electrical and controls works associated with the mechanical Plant.

#### **1.3.3.8. Builders Work Drawings**

##### Openings

- The *Contractor* shall show all openings and other finishes on layout drawings in such a way as to constitute a clear instruction to others.

##### Plant Foundations, Bases and Plinths

- The *Contractor* shall be responsible for providing detailed Builder's Work drawings for all foundations, plinths, and plant bases as per the manufacturer's recommendations for the Plant selected.

##### Noise and Attenuation

- In respect of noise control and attenuation, the *Contractor* shall be responsible for the selection, supply and installation of all sound attenuators, spring mounts, mass bases, flexible connections, spring hangers, etc. as required by the *Contractor's* detailed design to comply with all relevant SANS standards and the OHS Act.
- The *Contractor* shall ensure that where ducts and pipes pass through concrete, brick or other structural members and finishes, this is achieved without transmission of noise and vibration.

#### **1.3.3.9. Responsibilities of the Contractor**

- Ordering of Plant and Materials
- The *Contractor* shall be responsible to ensure that the project programme is adhered to and that no delays are caused by late deliveries of Plant and materials. All other activities which must proceed placing of orders must be considered when The *Contractor* schedules his activities.

#### **1.3.3.10. Storage of Materials and Plant**

*The Contractor shall* be responsible for the proper storage of all materials and Plant on site to ensure protection against the elements, damage by impact, dirt, builder's rubble, dust, theft etc.

#### **1.3.3.11. Protection of the Works**

*The Contractor shall* programme his work to avoid damage by other Trades and shall be responsible for protection of the *works* against such damage until handover to the Client.

#### **1.3.3.12. Accessibility**

- *The Contractor shall* plan suitable accessibility for thermometers, gauges, controls, dampers, and other devices which require reading adjustment, inspection, repair removal or replacement.
- *The Contractor shall* design all systems and plant positioning to enable ease of maintenance or repair and provide sufficient space for removal or replacement of plant if required.

#### **1.3.3.13. Weather Proofing**

- All outdoor Plant shall be weatherproof and corrosion resistant including minor items such as screws fixers, brackets, etc.
- The IP rating for waterproofing of all Plant must be accepted by the Project Manager.
- In addition to the above mentioned, *The Contractor* may comment on aspects of the *Employer's* design with a view to improvement or cost saving but must draw to the attention of the Engineer any aspect of the design which in his view is not appropriate. The final decision and responsibility rests with the Engineer.

#### **1.3.3.14. Service Conditions**

- The Plant and Material shall be designed and rated for continuous operation under the following conditions.
- Ambient/Environment Conditions:
- All Plant and Material offered shall be rated for continuous operation under the following conditions:

#### **External Conditions**

Summer ambient : 40 °C DB Maximum

Winter ambient	: -3 °C Minimum
Humidity	: as high as 86%
Altitude	: 0-1800m above sea level
Lightning conditions	Severe, with a maximum lightning ground flash density of 2.0 lashes per km2 per annum
Atmosphere	Atmosphere will be of a highly saline and dust-laden nature

### Internal Conditions (air-conditioned areas)

Summer	: 22.5 °C Dry bulb – 55 % Relative Humidity
Winter	: 22.5 °C Dry bulb – 55 % Relative Humidity

#### 1.3.3.15. Noise levels

Maximum noise levels caused by the operation of items of Plant shall comply with the OHS Act 85 of 1993 and all other regulations.

The SI ("Le Systeme International d' Unites") – Metric System of Units shall apply. Refer to SANS – M33A: The International Metric System: Guide to the use of the SI in South Africa. The *Contractor* shall additionally read the Engineering Works Information for the mechanical works in conjunction to this with the Specifications provided separately in the annexures.

#### 1.3.3.16. Technical Specification

The *Contractor's* designs, plant procured, and construction works shall be completed to meet the requirements specified in the technical specification documents. The following technical specification will be provided to the *Contractor*:

<b>Description</b>
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Document No.	Rev.	Description
XDN.E.037-M-SP-0001		Technical Specification for Supply, Delivery, Installation, Testing and Commissioning of Heating, Ventilation, and Air Conditioning (HVAC) System
XDN.E.037-M-SP-0002		Technical Specification for Design, Supply, Delivery, Installation, Testing and Commissioning of a Passenger Lift

#### 1.3.3.17. Testing and Commissioning of the *Works*

- The Commissioning of each system is done in accordance with the following high-level procedure:
- All work is inspected by The *Contractor* to ensure all defects are identified and rectified. The *Contractor* informs the Employer of all defects identified and the remedial action taken.
- Once the defects identified by The *Contractor* have been rectified, The *Contractor* and the Supervisor shall jointly inspect the Works. Any further defects shall be recorded and categorised according to the following:
  - Defects that are urgent and require immediate attention to enable testing and commissioning to be completed
  - Defects that can be rectified after Commissioning
  - Items that are out of scope and require approval to be implemented
- The *Contractor* and the Supervisor shall jointly inspect once all identified defects have been rectified
- The Project Manager notifies The *Contractor* that commissioning may proceed.
- A safety review is held with the *Contractor*, Supervisor, Project Manager, and necessary experts for the system being commissioned.
- Each system and item of major equipment is thoroughly checked using an accepted pre-commissioning check list.
- Functionality is checked for all items under no load conditions.

- Once all checks are complete and functionality confirmed, the system is started under test conditions and then put into operation
- *Contractor* rectifies all further defects identified during the commissioning process and previously identified defects including approved compensation events.
- The *Contractor* and the Supervisor shall jointly inspect once all identified defects have been rectified.
- The *Contractor* shall invite the Employers Engineer for all testing and commissioning activities at least 2 weeks prior to the start of the activities. the employers engineer must be present for all testing and commissioning activities

TRANSNET SOC LIMITED

CONTRACT NUMBER: TNPA/2023/08/0007/37982/RFP

DESCRIPTION OF THE WORKS: REFURBISHMENT OF 45 BAY TERRACE BUILDING



# **ANNEXURE E**

## **STRUCTURAL ENGINEERING WORKS**

### **INFORMATION**



## 1.1 Civil Engineering Works – Structures

### 1.1.1 Scope

An outline of the structural scope of works for the proposed refurbishment of the 45 Bay Terrace site is provided below:

- 45 Bay Terrace:
  - New concrete plinth for generator support.
  - New Enclosure for generator - Foundations and brick walls.

### 1.1.2 General Specifications

The SANS 1200 Standardized Specification for Civil Engineering Construction as approved by the Council of the South African Bureau of Standards shall apply to this Contract. The *Contractor* shall be in possession of these Standardized Specifications and their related SANS 0120 Code of Practice that apply equally and shall keep a copy of each on site for reference by him and the *Engineer* for the duration of the Contract.

In order to avoid confusion, original SANS 1200 terms such as “*Contractor*, The Engineer, Material, Plant, Measurement and Payment”, etc. have deliberately not been substituted with “*Contractor*, *Project Manager*, *Supervisor*, Plant and Materials, Equipment, Pricing Instructions”, etc. as per the ECC2, except where the context is clear. For the purpose of variations to standardized specifications, these terms should be interpreted in their original SANS 1200 context.

The following standard specifications are applicable to this contract: -

Specification	Year	Description
SANS 0100-2	1992	The structural use of concrete – Part 2: materials and execution of work.
SANS 1200 A	1986	Section A General
SANS 1200 AB	1986	Section AB Engineer’s Office
SANS 1200 C	1980	Site Clearance
SANS 1200 D	1988	Section D Earthworks
SANS 1200 DA	1988	Section DA Earthworks (small works)
SANS 1200 DB	1989	Earthworks (pipe trenches)

Specification	Year	Description
SANS 1200 DK	1996	Section DK Gabions and pitching
SANS 1200 DM	1988	Section DM Earthworks (roads, sub-grade)
SANS 1200 DN	1982	Section DN Earthworks (railway sidings)
SANS 1200 E		Precast concrete.
SANS 1200 G	1982	Section G Concrete (structural)
SANS 1200 H		Structural Steelwork
SANS 1200 M	1996	Section M Roads general
SANS 1200 MM	1984	Section MM Ancillary Road works
SANS 121	1973	Hot-dip galvanized coating on fabricated iron and steel articles – specifications and test methods
SANS 0100-2	1992	The structural use of concrete – Part 2: materials and execution of work.
SANS 1491-1	1989	Portland cement extenders – Part 1: ground granulated blast furnace slag.
SANS 1491-2	1989	Portland cement extenders – Part 2: fly ash.
SANS 1491-3	1989	Portland cement extenders – Part 3: condensed silica fume.
SANS 1700		Fasteners (all relevant sections and parts)
SANS 1921-1:2004	2004	Part 1: General Engineering and Construction Works
SANS 1921-2:2004	2004	Part 2: Accommodation of traffic on public roads occupied by the <i>Contractor</i>
SANS 2001: CC1		Construction Works: Concrete Works (Structural)
SANS ENV 197-1		Cement composition, specifications and conformity criteria – Part 1: common cements.

### 1.1.3 Particular Specifications

- S420 : Specification for concrete work

### 1.1.4 Earthworks and Backfilling

Excavation is required where the *Contractor* installs the foundations. Safety of excavations should be followed as per clause 5.1.1.2 of SANS 1200 D.

The *Contractor* shall monitor stability on a daily 24-hour basis and arrange appropriate trench protection measures and stabilisation against risk of collapse, where the stability of the adjacent soil body is at risk. In this case, shoring shall be designed to withstand the full earth pressure and the effects of surcharge. The *Contractor* shall provide a minimum quantity of 30m<sup>2</sup> of shoring, or more as instructed, for the duration of the earthworks irrespective of usage. Additional procurement shall be subject to instruction by the *Project Manager*.

To ensure over break limitation it is required that all stabilised surface layers be excavated with care. Subject to approval of the Technical Officer stabilised layers may be perforated along both edges of excavation and along intermediate rows if necessary

#### 1.1.4.1 Trench Excavation

All trench excavations deeper than 1.0 m is either properly shored as per sub-clause 5.1 of SANS 1200 DB or the sides are battered back to a safe angle as determined by the strength of the soil and any other safety specifications applicable.

No work is carried out in deep excavations unless the Safety Officer approves the protection measures. The shoring is also suitable for the protection of any structures adjoining the excavation, where applicable.

All shoring is removed on completion of the construction work.

#### 1.1.4.2 Protection of Excavations

All drainage related excavations are protected as required in the Occupational Health and Safety Act, Act 85 of 1993. These protection measures are inspected and maintained on a daily basis until the backfill and final layer works are complete.

#### 1.1.4.3 Materials

##### **Hard and soft material**

Hard material is defined as material proven to the *Supervisor* to be irremovable by a 30t excavator, fitted with a rock bucket, and requires to be broken by a woodpecker or jack hammers prior to removal. Any stabilised or other solid surface layer is excluded from this definition. Subject to drainage not being restricted and the geo-fabric blanket not being damaged, rock protrusions are permitted to encroach a maximum of 100mm into the design class B layer, whilst competent un-fractured and continuous layers of rock are allowed to encroach the entire class B layer.

Furthermore, notwithstanding clause 3 of SANS 1200 D and SANS 1200 DB, all excavations are classified as hard or soft. Hard excavation comprises material that can only be removed with pneumatic tools or by blasting. All other excavations are classified as soft. Health and Safety requirements shall be followed when removing material with pneumatic tools or by blasting. The *Contractor* must inform the *Supervisor* and *Project Manager* prior to any such works to ensure safety of excavations.

If the material at founding level differs from that shown on the drawings, or is not approved, the *Supervisor* shall instruct the *Contractor* to do one of the following:

- Over-excavate to the depth required by the *Supervisor* and re-compact the in-situ material at founding level in layers not exceeding 150 mm until a density of at least 95% MOD AASHTO for cohesive materials and 100% MOD AASHTO for non-cohesive materials is attained to the founding level.
- Excavate the unapproved material to the depth instructed by the *Supervisor* and found at this level.
- Excavate the unapproved material to the depth instructed by the *Supervisor* and fill to the level instructed, either with mass concrete or approved backfill, as directed.

Exposed rock founding surfaces are roughened to provide sound bond with the foundation, brushed to remove all loose material, and flushed with water if so instructed. Surplus water is removed before concreting.

The *Supervisor* is notified as soon as possible if suitable material is encountered before reaching the designed level.

Where the *Contractor* makes the excavations larger or deeper than directed, the *Contractor* replaces the over break in the floor of the excavation with concrete of strength as directed or, if authorized, with approved backfill.

#### 1.1.4.4 Dewatering

All foundation concrete is poured in the dry. The *Contractor* provides all shoring, pumps, other equipment or material to ensure the stability of excavations and to keep them dry.

#### 1.1.4.5 Backfilling

After completion of concrete work, or when so directed, the *Contractor* shall restore the original ground level by backfilling with approved material. Where the material from excavations is not suitable for backfill, the *Contractor* shall provide approved material, from borrow pits or other sources, as directed. Backfilling compaction shall be in layers not exceeding 150 mm until a density of at least 95% MOD AASHTO for cohesive materials and 100% MOD AASHTO for non-cohesive materials is attained to the founding level.

#### 1.1.5 Falsework, Formwork and Concrete Finish

The *Contractor* shall take full responsibility for the design, manufacturing and installation of all falsework. Temporary platform, as well as hand railing shall be fully cladded with non-conducting wooden board of sufficient thickness to safely support any incidental load that may be applied during construction. The hand railing/ balustrade must be a minimum of 1500mm high. Any walkway structure made of conductive metal grating will not be allowed for overhead electrical safety precaution.

#### 1.1.5.1 Securing of formwork

Forms are provided with adequate devices for secure setting so that, when in place, they withstand, without visible spring or settlement, the impact of the vibration of the compacting and finishing equipment.

#### 1.1.5.2 Formwork ends

The ends of abutting forms lock tightly and securely together.

#### 1.1.5.3 Damaged formwork

Forms that are out of tolerance, bent, twisted or broken, or which have battered top surfaces, are not used. Forms are at all times kept clean and free from rust and adhesions so as to ensure clean stripping. The use of rough and dirty forms is not permitted.

#### 1.1.5.4 Deflection of formwork

The spacing of supports for formwork is such that the deflection of the formwork under load of wet concrete does not exceed 3 mm. The supports are adjustable by means of screw jacks or wedges, both of which are secured.

Temporary beams used to support formwork shall be designed to ensure that the deflection under the weight of wet concrete does not exceed 2,5 mm/m of clear span, or in the case in the case of reinforced concrete.

If placement of concrete in stages is specified or approved, the top barrel formwork must be fully supported by the falsework until all stages are completed. The stiffness of temporary trusses or beams used to support formwork must be such that the deflection under wet concrete placed during the first stage does not exceed 2,5 mm/m of clear span of the permanent structure, or such lesser figure as specified, multiplied by the ratio of first stage concrete to total deck concrete exclusive of parapets. Approval for any relaxation of these stipulations is obtained in writing from the *Supervisor*.

The false work is adjusted to ensure that the finished soffit has an upward camber of between 0 and 2 mm/m of clear span after removal of false work, under permanent loading due to parapets, surfacing and/or track.

Unless shown otherwise on the drawings or directed by the *Supervisor*, false work for all spans is kept in position until, in the case of concrete structures, the concrete of the last pour reaches the appropriate minimum age given in SANS 1200 G.

The alignment and levels of all formwork is checked and accepted by the *Supervisor* prior to placing concrete.

Forms are fixed in position not later than 12:00 on the working day prior to that on which concreting takes place, in order for the *Supervisor* to inspect them.

#### 1.1.5.5 Void formers

Contrary to clause 5.4 of SANS 1200 G, the following applies: -

- Void formers used in permanent work are ARMCO or similar approved by the *Supervisor*.
- Void formers are manufactured from material that will not leak, tear or be damaged during the course of construction, and are of such tight construction as to prevent undue loss of the mortar component of the concrete through leakage. The units are sufficiently rigid so as not to deform during handling or under the pressure of the wet concrete.
- Void formers must be 990mm diameter.

#### 1.1.5.6 Braced void formers

- 0,8 mm for diameters exceeding 800 mm and up to 1000 mm.
- 1,0 mm for diameters exceeding 1000 mm and up to 1200 mm.
- 1,2 mm for diameters exceeding 1200 mm.

The thickness specified for braced void formers applies to formers internally braced with timber or equivalent braces. The braces are at spacings not exceeding 2,0 m and not further than 1,0 m from the end of each unit. Timber cross braces consist of members with cross sectional dimensions of at least 50 mm x 50 mm.

#### 1.1.5.7 Vibrators

Internal (poker) and surface vibrators are capable of fully compacting each layer of concrete where compaction by vibration is used. At least one standby vibrator is available for every three (or smaller number of) internal vibrators necessary to maintain the rate of placement.

#### 1.1.5.8 Formwork and concrete finishes

All concrete surfaces require a finish to a degree of accuracy II as specified in SANS 1200G as follows: -

##### 1. Rough finish

The following surfaces may have a rough finish: -

- Unexposed surfaces.

##### 2. Smooth finish

The following surfaces have a smooth finish: -

- Slab soffits and slab sides

Wood float finishes are provided to: -

- top surfaces of slabs

The *Contractor* takes particular care to ensure that formwork joints are tight enough to prevent leakage of cement mortar. Shutters that are damaged will leave a poor surface and they shall be deemed as unacceptable. The *Supervisor* shall request the *Contractor* to remove and repaired or discarded.

Concrete is not deposited in the forms until the *Supervisor* inspects the accuracy of alignment and dimensions of forms and the positioning of end blocks, reinforcement, anchorages, pre-stressing tendons and of the ducts, and gives his acceptance thereof on the concrete pour release certificate.

#### 1.1.5.9 Dismantling and removal of formwork (1200G: 5.2.5)

Tie-rods or their removable parts are extracted without damage to the concrete and remaining holes shall be filled with mortar. No permanently embedded metal parts of tie-rods *shall* have less than 40 mm cover to the finished concrete surface.

#### 1.1.6 Steel for Structures

##### 1.1.6.1 Reinforcement for Structures

All reinforcing shall be in accordance with SANS 920. High tensile steel Reinforcing to have a minimum characteristic strength of 450MPa. Reinforcement shall be fixed to comply with tolerances specified in SANS1200G.

#### 1.1.6.2 Welded mesh fabric

Welded mesh fabric complies with the requirements of SANS 1024-1991.

#### 1.1.6.3 Dowels

Dowel bars will be high tensile steel reinforcement and installed with an approved epoxy grout where specified.

#### 1.1.6.4 Stainless Steel

3Cr12 stainless steel complies with Euronorm Standards EN 10088 and EN 10028.

Grade 316 and 316L stainless steel complies with AISI.

#### 1.1.6.5 Galvanizing of steel

Galvanizing complies with SANS 121 (SABS ISO 1461). The coating thickness is 25% greater than the standard and in accordance with SABS Specific Permit Conditions 1336/2494.

### 1.1.7 Concrete material for Structure

#### 1.1.7.1 Slab Preparation

The concrete slabs shall be constructed over secure and approved formwork. The formed formwork is cleaned of any dirt or loose material using compressed air. There shall be no free-standing water at the time of pouring.

#### 1.1.7.2 Cement

The *Contractor* shall submit a Concrete mix design to the *Project Manager* for approval at least 6 weeks prior to construction. Cement used for concrete work shall comply with SANS ENV 197-1. Cement extenders used for concrete work comply with SANS 1491. The cement types given below are acceptable for use in the works, however, the proportion of extenders of factory blended cement should conform to the requirements of SANS 1491, clause 12.5.3.4. On no account are masonry cements used for concrete work, even if the strength designations are the same as for ordinary cement.

Acceptable cement types: -

CEM 1 42,5	Portland cement
CEM 1 42,5R	Portland cement, rapid hardening.
CEM 11/B-V	Portland fly ash cement.



CEM 11/B-W	Portland fly ash cement.
CEM 111/A	Blast furnace cement.

#### 1.1.7.3 Aggregates

Fine and coarse aggregates shall comply with SANS 1083.

Where aggregates have constituents which, in the opinion of the *Supervisor*, may give rise to damage due to alkali-aggregate reactions; the *Supervisor* shall request the *Contractor* to provide material data sheets and calculations for the total alkali-silica reaction to the *Project Manager* and *Supervisor* for approval prior to casting of concrete. Alkali-aggregate reaction is not permitted. This information will be required at least four weeks before concreting commences. Submission of material data sheets is at least six weeks before concreting commences.

#### 1.1.7.4 Admixtures

Admixtures containing chlorides are not permitted in reinforced concrete.

#### 1.1.7.5 Curing compound

In all cases where a concrete curing compound is specified, the curing compound is grey or white-pigmented membrane forming material shall comply with ASTM specification C309, except that the maximum permissible water loss in the test is 0,40 kg/m<sup>3</sup>.

Before any curing compound is used, the *Contractor* shall submit a one-litre sample of the compound, with full technical details, to the *Supervisor* for acceptance.

Technical details referred to include a recent SANS report showing the following: -

- Compliance with ASTM C-309.
- The relative density of the compound.
- The infrared spectrum of the compound.
- Alternatively, the concrete curing compound is acceptable if the treated concrete retains 90% or more of its mixing water when subject to the test set out in BS 8110: Part 1, clause 6.6l.

In addition:

- Clear curing compound is applied to all concrete surfaces except to barrel top surface as soon as bleed water have evaporated from unformed surfaces.

- White pigmented curing compound is applied to the wood floated portion of the top surface of the barrel.
- The rough screeded central portion of the top surface of the barrel that is to receive the track slab is moist cured.
- Where curing by retention of formwork is used as the only method of curing the concrete, it must be left in place for the minimum period specified but in no instance shall it be less than 7 days.
- The materials used for formwork shall take into account properties such as thermal insulation and moisture absorption when assessing the suitability of the material, to the approval of the *Project Manager*.
- If impermeable curing membranes are to be used as a curing method, they shall be installed at the same time as formwork is removed and no portion of a concrete surface may be left unprotected for a period in excess of 2 hours. If the surface is an unformed finish e.g., top of slab, then the surface must be protected immediately by appropriate methods approved by the *Project Manager* after it is finished, without damage to that surface, since it is vulnerable to plastic shrinkage cracking due to high rates of evaporation while the concrete is still in a plastic state. Plastic shrinkage and settlement shall not be permitted on any of the structural elements since it compromises the durability of the concrete.

#### 1.1.7.6 Concrete Alkali

##### **Alkali reactive concrete**

Alkali reactive aggregates are not used in this project. The equivalent Na<sub>2</sub>O content of the concrete does not exceed 2,0 kg/m<sup>3</sup>, where % Na<sub>2</sub>O equivalent = % Na<sub>2</sub>O + (0,658 x % K<sub>2</sub>O).

#### 1.1.7.7 Concrete Quality

Before the start of concrete work on site, the *Contractor* shall submit a quality assurance plan to ensure compliance with specifications, and to provide acceptable documentary proof that all specified operations are carried out satisfactorily.

#### 1.1.7.8 Potential heat generation

Measures, subject to the acceptance of the *Supervisor*, are applied to reduce heat development in concrete of which the minimum dimension to be placed during a single pour is larger than 600 mm, and the cement content exceeds the values given in the table below.

Structural element	Cement types I and III/A (kg/m <sup>3</sup> )	Cement types II/B-V and II/B-W (kg/m <sup>3</sup> )
Reinforced concrete	400	450

## 1.1.7.9 Durability

In order to enhance durability, and notwithstanding strength considerations, the concrete mixes satisfy one of the mixes given in the table below. Prior written acceptance for the mix is obtained from the *Supervisor*.

Concrete type	Cement type and % content	Extender type and % content	Minimum cement plus extender content kg/m <sup>3</sup>	Maximum water/cement ratio
Steel reinforced	CEM 1 50% - 60%	GGBS 40% - 50%	420	0.40
Steel reinforced	CEM 1 70% - 75%	FA 25% - 30%	420	0.40
Plain	CEM 1 100%	Nil	340	0.50
Plain	CEM 1 75%	FA < 25%	340	0.50
Plain	CEM 1 35% - 65%	GGBS 35% - 65%	340	0.50
Plain	CEM 1 65% - 74%	FA 26% - 35%	300	0.55

Note: -

- CEM 1 may be CEM 1 42, 5 or 42, 5 R.
- GGBS – Ground Granulated Blast Furnace Slag.
- FA – Fly Ash.
- Factory blended cements (CEM 11/B-V, CEM 11/B-W or CEM 111/A) are accepted provided that they conform to one of the blends specified in the table. The *Contractor* supplies certification thereof.
- Water-reducing admixtures may be used to improve workability. The water cement ratio includes the water content of admixtures.

Blends of CEM 1 and condensed silica fume (CSF) are not acceptable for steel reinforced concrete. Ternary blends such as CSF with CEM 1 and FA or GGBS are considered provided that they are shown to be equivalent in durability to the mixes given. The onus is on the *Contractor* to prove to the *Supervisor* the adequacy of the blend.

#### 1.1.7.10 Concrete Strength of mix

The strength of the concrete mixes as specified on the drawings or given in the particular specifications for the works, conforms to the following requirements, as class x/y, where:

- X = minimum 28 days crushing strength in Mpa
- And y = maximum aggregate size in mm.
- Concrete shall be grade 40 MPa/19 mm stone and mass concrete 15/19. The concrete cover is 50mm for exposed surfaces to moisture.
- Reinforcing shall be high tensile steel in accordance with SANS 920.

#### 1.1.7.11 Placing

**Inspection of excavation:** The size, shape and depth of any excavation are approved by the *Supervisor* before concrete is placed.

**Inspection of reinforcement:** Unless otherwise permitted by the *Supervisor*, no concrete is placed prior to approval of fixed reinforcement by the *Supervisor*.

The *Supervisor's* written acceptance is obtained before any concrete is cast.

In addition, the following applications should be done by the *Contractor*:

#### 1.1.7.12 Batching

All aggregates are precisely measured by mass using approved precision weigh batching equipment, unless otherwise permitted by the *Supervisor*.

Should any variation in the composition of the aggregate become apparent, the *Supervisor* is notified, and a further sample of the aggregate submitted immediately to him for acceptance.

#### 1.1.7.13 Blinding layers

To facilitate the placing of reinforcement and erection of formwork, a blinding layer of grade 15/19 concrete is provided below foundations.

The thickness of the blinding layer is not less than 75 mm. Payment for blinding in excess of the specified thickness will not be made, unless ordered by the *Project Manager* in writing.

#### 1.1.7.14 Control of concreting operations (1200G: 5.5.3)

No relaxation regarding the provision of continuous supervision by a technician at the mixer is allowed and where the point of placing of the concrete is more than 150 m from the mixer, continuous supervision by a technician is also provided at the point of placing. Supervision at the point of placing applies in cases where ready-mix concrete is used.

#### 1.1.7.15 Ready-mixed concrete

The use of ready-mixed concrete is permissible. Concrete test results obtained from the production facility are acceptable, provided that the tests are carried out in accordance with the specifications.

Where concrete is delivered to site ready mixed, the requirements of SANS 878 apply.

#### 1.1.7.16 Construction joints

The joint surface of the concrete is roughened while still green by means of brush and water spray to expose the coarse aggregate. Retarders may be used on stop-ends, which are removed after 12 hours for green cutting. Mechanical roughening of hardened concrete using power tools is not permitted.

All surfaces are cleaned and kept continuously wet for 24 hours before pouring of the adjoining cast.

Stub-columns, stub-walls and stays on footings are cast integrally with the footings and not afterwards, even where another class of concrete is being used.

Joint lines are so arranged that they coincide with features of the finished work.

At contraction joints (joints having no reinforcement passing through the joint), no bond is required between casts. Contraction joints are smooth and have one coat of lime wash or PVA applied to the older surface prior to casting the newer concrete.

The *Supervisor's* prior written acceptance is obtained before the adjoining concrete is cast.

#### 1.1.7.17 Curing

All water for curing must be clean, fresh water.

The curing period for concrete containing CEM 1 only is seven days. The curing period for concrete's containing CEM 1 plus cement extenders (GGBS, FA) is ten days. The period starts

on completion of the concrete pour, and for formed surfaces include the time for which forms are still in place after the pour.

The *Supervisor's* prior written acceptance of the curing method to be used is obtained before any concrete is cast.

In addition, the following curing methods are permissible, except where otherwise specified: -

- **For plain concrete: -**

- Retaining of forms in place on vertical surfaces, provided they are made of non-absorbent facing materials.
- Ponding of water on horizontal surfaces. Curing water must be fresh and not be more than 10°C cooler than the concrete on which it is to be applied, in order to avoid surface cracking.
- Covering with sand, earth, straw, sawdust, cotton, jute, burlap or evelli or similar moisture retaining materials. The materials are kept continually moist and not allowed to dry out as alternate wetting and drying is detrimental to the curing process. The material is free of harmful amounts or substances such as sugar or fertilizer that may harm the concrete or cause discoloration.
- Sprinkling or spraying with water. This is done at frequent intervals such that the concrete surface remains continuously moist and is not allowed to dry out between wettings. Erosion of the fresh concrete surface is avoided.
- Covering with plastic sheeting, waterproof or other curing paper. The covering material is firmly and continuously held in place along its edges such that the concrete surface is not allowed to dry out. Care is taken not to tear, puncture or otherwise disrupt the continuity of the curing film. Plastic film is not black and preferably not white or clear.
- Liquid membrane-forming curing compounds. Only resin type compounds are permitted. The formulation is such as to form a moisture retentive film shortly after being applied and is not harmful to Portland cement paste. White or grey pigments or dyes are incorporated to enable the compound to be visible on the surface for inspection purposes.

For unformed surfaces, the compound is applied after finishing and as soon as the free water on the surface disappears and no water sheen is visible, but not so late that the liquid curing compound will be absorbed into the concrete. For formed surfaces, when forms are

removed, the exposed concrete surface is wetted with water immediately and kept moist until the curing compound is applied.

Application of the compound is started immediately after the concrete has reached a uniformly damp appearance with no free water on the surface. The compound is applied at a uniform rate with two applications at right angles to each other to ensure complete coverage and may be applied by hand or power sprayer. Pigmented compounds are adequately stirred to assure even distribution of the pigment during application, unless the formulation contains a thixotropic agent which prevents settlement.

The *Contractor* supplies a certificate confirming compliance and that the manufacturer's directions with respect to preparation and application, are strictly adhered to.

The total application rate is as specified by the manufacturer, or 0,30 litres per square meter, whichever is the greater.

In the case of concrete surfaces with run-off problems, it may be necessary to apply more than one coat of membrane forming curing compound, to obtain the specified total or cumulative application rate.

When the wind velocity exceeds 5 m/s and/or the ambient temperature is above 25°C and/or the relative humidity is below 60%, the initial 24 hour curing of concrete surfaces not covered by formwork is carried out by ponding, covering with constantly wetted sand or mats, or continuous spraying in accordance with SANS 1200 G, unless otherwise permitted by the *Supervisor*.

- **For steel reinforced concrete:**
  - Covering with burlap or evelli or similar moisture retaining materials, as in clause 1 above for the wall base.
  - Sprinkling or spraying with water, as in clause 1 above.
  - Releasing the forms slightly and allowing a flow of water between the form and the concrete.
  - Curing methods using sealing materials such as plastic or liquid membrane forming compounds is not allowed for steel reinforced concrete structures due to the low W/C ratio of the concrete mix.

All exposed concrete surfaces have a neat, smooth, even and uniform finish, free from any honeycombing and blow holes.

#### 1.1.7.19 Concrete placing

##### **Acceptance of aggregates**

The *Contractor* shall submit 40 kg samples for acceptance at least six weeks before concrete construction is commenced. No aggregate is delivered for use in the works until the *Supervisor* gives acceptance. In addition, evidence of compliance of the aggregates with the requirements is furnished at least four weeks before concreting commences.

##### **Inspection of excavations**

The size, shape and depth of any excavation are approved by the *Supervisor* before concrete is placed.

##### **Inspection of reinforcement**

Unless otherwise permitted, no concrete is placed until the fixed reinforcement has been accepted by the *Supervisor* and confirmed in writing by way of a release certificate.

##### **Trimming of excavations**

In addition to requirements of clause 5.2.2.1 of SANS 1200 D, excavated surfaces that will act as forms for concrete works are trimmed so that concrete cover is not less than the cover stated on the drawings or 80 mm, whichever is greater.

#### 1.1.7.20 Compaction of concrete

The *Supervisor* approves the methods used to vibrate the concrete. The vibrating is done with care and in such a manner as to avoid displacement of reinforcement, tendons or ducts.

Each layer of concrete is thoroughly compacted before the next layer is placed and is covered by the next layer within 30 minutes of completion of compaction. If more than 30 minutes have elapsed since completion of compaction of a layer, concreting may not be resumed unless the concrete in place is still soft enough to be penetrated by the vibrator. If the vibrator can penetrate, a layer of fresh concrete not exceeding 150 mm in thickness is placed over the concrete already placed and the vibrator passed through the fresh concrete into the concrete previously placed so that both are vibrated, and a knitting of fresh and older concrete is



satisfactorily achieved. If the concrete already placed has hardened so that a vibrator will not penetrate, concreting is stopped, and instructions are obtained from the *Supervisor*.

Stub-columns, stub-walls or kickers on footings are cast integrally with the footings and not afterwards, even when a different class of concrete is used.

#### 1.1.7.21 Removal of excess mortar

After concrete is brought to the correct level and struck off, the surface is smoothed by means of a Steel- or wood-float. The thickness of the mortar cover over particles of coarse aggregate is then measured by light scraping of a few representative areas. If this thickness exceeds 1,5 mm, the surplus mortar is removed by scraping with a rubber-edged squeegee approximately 750 mm wide.

#### 1.1.7.22 Final finishing (delayed power-trowel finishing)

Where specified, this operation is performed only:

- after bleeding of the concrete has ceased and
- After bleed water has evaporated or has been removed from the surface of the concrete, and the concrete has stiffened appreciably (to the extent that a footprint will barely show).

Allowance is, therefore, made for a delay period of two to three hours or more, especially in cold weather, after bull nosing or wood floating, before finishing operations can start.

Trowelling continues at intervals until an even surface with a slightly matt texture is obtained.

#### 1.1.7.23 Documentation for control of concreting operations (1200G: 5.5.15)

In addition to the requirements of 1200G, clause 5.5.15, two specific documents are used to assist in the control of concreting operations.

- The concrete pour release certificate is completed by the *Contractor's* agent prior to any checking of formwork and reinforcement by the *Supervisor*. Only after the *Contractor's* agent has personally checked all aspects of the shuttering and reinforcement and levelling the document in the relevant spaces, is it submitted to the *Supervisor*.
- The concrete placing record

The *Contractor* maintains the following daily records for every part of the concrete structure and makes these available at all times during the progress of the work for inspection by the *Supervisor*: -

- The date and times during which concrete is placed.
- Identification of the part of the structure in which the concrete is placed.
- The mix proportions and specified strength.
- The type and brand of cement.
- The slump of the concrete.
- The identifying marks of test cubes made.
- Curing procedure applied to concrete placed.
- The times when shuttering is stripped, and props are removed.
- The date of dispatch of the cubes to the testing laboratory.
- The test results.

The records are delivered to the *Supervisor* each week except in the case of sub-standard concrete when the *Supervisor* is informed immediately.

#### 1.1.7.24 Tolerances

Tolerances are within the limits listed in SANS 1200 G for degree of accuracy II, specified in clause 6, unless stated otherwise on drawings.

#### 1.1.8 Joints

##### 1.1.8.1 Neoprene compression seal

The neoprene compression seal complies with the requirements of ASTM 1056, Type 2, Class B, Grade 2 or AASHTO T-42-84 Modified.

##### 1.1.8.2 Joint fillers

The *Contractor* furnishes details and specifications of joint fillers he proposes to use, for acceptance. Jointex or similar joint filler must be durable and non-extruding, composed of closed-cell expanded polyethylene and comply with AASHTO 153 modified as follows: -

Minimum density	25 kg/m <sup>3</sup>
Load causing compression to 50% of volume	100 to 150 kPa
Minimum recovery after compression to 50% of volume	To 80% of original volume

Maximum water absorption after immersion of	3% by volume 28 days
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Polystyrene joint fillers consist of closed-cell foam and have the following properties: -

Adequate rigidity for handling
Minimum density of 16 kg/m <sup>3</sup>
An increase in density of not more than 1% when a cement slurry is rubbed into exposed surfaces.
An accuracy of $\pm 2$ mm on specified thickness.
Dimensional stability at a temperature of 40° C.
Vaporization only when in contact with a flame
Compression to not less than 50% of its original thickness under a load not exceeding 240 kPa after saturation with cement slurry and curing for 14 days.

Joint filler sheeting is used in the longest lengths possible. Joints are neatly butted and sealed with waterproof adhesive tape.

Joint fillers are attached to the concrete previously cast in such a manner that it will neither displace during concreting or thereafter if the filler is to remain permanently in the joint. On the side to be concreted, polystyrene is lined to ensure that the joint surfaces are formed without defect.

After removal of formwork, mortar fouling the chamfers is taken out neatly and the joint filler removed to a depth of 20 mm beyond the chamfer depth, or as shown on the drawings. Polystyrene may be removed by flame evaporation

#### 1.1.8.3 Joint sealing

Preformed elastomeric compression joint seals: -

- Comply with SANS 1023 for Type 1 and 2 seals
- Are supplied in the longest lengths possible.
- A 2 m long sample of each size and type of seal, which the *Contractor* proposes to use, is submitted for acceptance:
- Adhesive used with compression seals is as recommended by the manufacturer of the seal and has lubricating qualities.

Alternative sealants: -

- Cold-applied, one component, low modulus silicone sealant;
- Cold-applied, two component polyurethane;
- Cold-applied, two component elastomeric sealant with resistance to diesel, petrol and other fuel oils.

Cold-applied sealant consists of two-component polysulphide complying with SANS 110.

Can be considered provided that full details of the sealant's characteristics and applicable specification (SANS as above or any other standard specification for bridge structures accepted by the *Supervisor*) are submitted to the *Supervisor* for acceptance prior to application. Application of these sealants is subject to the manufacturer's instructions.

#### 1.1.9 Bolt Group

##### 1.1.9.1 Holding down bolt groups

Holding down bolt groups for electrification masts are assembled into accurately fabricated, welded cages, and cast into position in the deck slab, to a tolerance of  $\pm 10$  mm.

##### 1.1.9.2 Electrification brackets

Electrification brackets are cast into position in the deck soffit to a tolerance of  $\pm 10$  mm.

##### 1.1.9.3 Dowels and tie-bars

Any required Dowels and ties are accurately set and firmly held in position parallel to the finished surface and to the longitudinal joints at mid-slab depth and at the spacing specified.

#### 1.1.10 Testing Material and Workmanship

##### 1.1.10.1 Concrete

Before the start of any concrete work on the site, the *Contractor* supplies the *Supervisor* with a statement of the mix proportions which he proposes to use, and the target strength for each grade of concrete.

All testing shall conform to the relevant clauses in SANS 1200.

Where required, the two-point loading method of the flexural strength tests, as described in SANS Method 5864 (1994) is used.

#### 1.1.10.2 Frequency of sampling

Frequency of sampling and testing is as specified in SANS 1200 G, Sections 7.1 and 7.2, subject to the testing of:

- a minimum of three sets of samples per day from each grade of concrete placed in each independent structure if the concrete quantity from which these samples were taken, exceeds 40 m<sup>3</sup>,
- A minimum of two sets of samples per day when such quantity is equal to or less than 40 m<sup>3</sup>.

#### 1.1.10.3 Acceptance criteria

Acceptance criteria are as specified in SANS 1200 G, section 7.3. If the *Contractor* disputes test results on concrete cubes, the concrete represented by the cubes are considered acceptable if the *Contractor*, at his own cost, proves to the satisfaction of the *Supervisor* that the estimated actual strength of the cores taken from the structure, determined in accordance with SANS Method 5856 (SABS Standard Method SM 856), is not less than the specified strength.

If the strength of concrete fails to meet the acceptance criteria stipulated, the *Supervisor* may in his sole discretion, and in addition to the options listed in SANS Method 5864 and 5856: -

- accept the concrete subject to approved remedial measures being undertaken by the *Contractor* or
- Permit the concrete to remain subject to the payment of a penalty.

The penalty is determined as follows: -erratic

- $\text{Penalty} = V \times R \times F$

Where:

- V = Volume of concrete of unsatisfactory strength represented by the test result.
- R = Relevant schedule rate.

$$F = 1 - \sqrt{\frac{\text{Average strength of unsatisfactory concrete}}{\text{Specified strength} + 6 \text{ MPa}}}$$

Where the relevant scheduled rate (R) includes the cost of formwork or

$$F = 1 - \frac{\text{Average strength of unsatisfactory concrete}}{\text{Specified strength} + 6 \text{ MPa}}$$

Where the relevant scheduled rate (R) excludes the cost of formwork or where no formwork was involved.

#### 1.1.10.4 Equipment (concrete batching)

Concrete batching equipment includes bins and mass measuring equipment for each size of aggregate and cement, if used in bulk. The mass measuring equipment is accurate to within 0, 5 percent throughout its working range. The *Contractor* provides a certificate of accuracy of all measuring equipment on a quarterly basis.

#### 1.1.10.5 Testing Methods

During the progress of the work tests are conducted on concrete and soil materials and workmanship to ensure compliance with the requirements of the specifications.

All tests are conducted in accordance with the standard methods specified in the following, in order of precedence:

- Standard methods for testing road construction materials (TMH1 and TMH6) and for calibration (TMH2), compiled by the Committee of State Road Authorities (CSRA) and published by the Department of Transport as part of the series Technical Methods for Highways.
- South African National Standards specifications, test methods, codes of practice and co-ordinating specifications (abbreviated as SANS and CKS).
- British Standards Institute Specifications (abbreviated as BS).
- The specifications of the American Society for Testing and Materials (abbreviated as ASTM).
- The specifications of the American Association of State Highway and Transportation Officials (abbreviated as AASHTO).
- In addition to the above standard methods of testing, standards specifications or test methods of other bodies may also be referred to in these specifications, or test methods may be described where no acceptable standard methods exist.

#### 1.1.10.6 Cost of testing

##### **1. Process Control**

The cost of testing undertaken by the *Contractor* in terms of his obligations under the contract for purposes of process control, including the taking of samples, reinstating where samples have been taken and all testing equipment, labour, materials, etc., is included in the rates tendered for the various items of work supplied and will not be paid for separately.

## 2. Producing certificates

Where the properties of materials or manufactures products are required in these specifications to comply with specified specifications published by a standards authority, the *Contractor* produces, when called upon to do so, certificates from the manufacturer confirming that the materials or products supplied comply with the relevant specifications. The cost of providing such certificates is borne by the *Contractor*. Where it is specified that a product complies with a SANS specification, it means that the product shall have been tested and evaluated in accordance with the requirements of the relevant SANS specification. Where the SANS mark is specified, a certificate is required.

## 3. Testing materials and products covered by certificates

The *Supervisor* is entitled to take samples of and order tests to be made on products and materials in respect of which certificates of compliance may be required as described in section 3(b) above. The *Contractor* is paid at the appropriate rates if the cost of such tests are itemized in the schedule of quantities, and, if no appropriate rates exist, such tests are classed as a and will be dealt with in terms of the NEC with a *Project Manager's* instruction, provided that such tests indicate compliance with the specifications, otherwise the cost is borne by the *Contractor*.

### 1.1.11 Steel Work

#### a. Governing Codes and Standards

ANSI/AWS D1.1	Structural Welding Code - Steel
BS-EN 287 Part 1	Approval testing of welders/fusion welding
BS-EN 288 Part 3	Specification and approval of welding procedures for metallic materials
BS 5135	Metal arc welding of carbon and carbon manganese steels
BS 4360/SANS 50025	Weldable structural steel
BS 2573 Part 1	Classification, stress calculations and design of structures
BS 3923	Methods for ultrasonic examination of welds
BS 2600	Radiographic examination of fusion welded butt joints in steel
BS 4 Part 1	I and H sections
DIN 1026	Metric channels
ISO R657	Angles
BS 4848 Part 2	Hot finished hollow sections

BS 6363	Cold formed sections
SANS 10094	The use of high strength friction grip bolts and nuts
SANS 135	ISO metric bolts, screws and nuts (hexagon and square) (coarse thread free fit series)
SANS 136	ISO metric precision hexagon-head bolts and screws, and hexagon nuts (coarse thread medium fit series)
SANS 435	Mild steel rivet
BS 29	Forgings
BS 3100	Steel castings
BS 1452	Cast iron

#### b. Structural Steelwork

The design of all structural steelwork shall be such as to provide a robust and rigid structure requiring the minimum of maintenance and providing a long service life.

In the design of steel structures, due cognisance shall be taken of environmental and wind load conditions as specified in the main specification.

Due to the highly corrosive conditions experienced in South African Ports, the permissible stresses shall not exceed those set out in British Standard No. 2573. The minimum thickness of steel for load bearing members shall be 15mm for gussets, 10mm for angles, tees, plates, and flats and 9mm for webs of channels and joists. Punching of holes over and above that permitted in BS 2573, shall not be permitted. Other structural steel shall be of not less than 6 mm thickness.

The design of mobile structures shall be such that the induced von Mises stress (effective stress in triaxial loading) will not exceed 90% of the elastic limit strength of the steel when the equipment is travelling at maximum speed and colliding with either other stationary equipment or fixed stop blocks. In calculating von Mises stresses, due cognisance must be taken of stress concentrations. If the elastic limit strength of the steel is not known, it will be determined by using a 0.5% strain offset on the stress-strain curve of the material.

Where applicable, the design may be in bolted, riveted, or welded box construction except that no site welding will be permitted in the final erection at the port except with the approval of the *Project Manager*.

Alternatively, a welded hollow section lattice type structure will be acceptable, subject to the following requirements:



- i. The members must be structural sections made from BS 4360/SANS 50025 grade S355JR / 43C weldable structural steel - welded for sizes up to and including 110mm outside diameter (BS 1775 HFW) - seamless for sizes over 110mm outside diameter (BS 1775 HFS).
- ii. Tube wall thickness must not be less than 6mm.
- iii. All joints must be completely seal welded in accordance with BS 5135. Special care must be taken to prevent the ingress of moisture into hollow section members by ensuring that each member is airtight.
- iv. Bolted or screwed attachments which require drilled holes through a hollow section will not be permitted.
- v. Non-hollow structural sections and plate used on the structure, in conjunction with the hollow section framework, must comply with the relevant requirements of this specification.
- vi. All steel plates and rolled steel sections used in the construction of the structures shall be of steel made by the open-hearth process (acid or basic) and shall comply in every respect with BS 4360, "A" quality Structural Steel for Bridges and General Building Construction, Grade 43A or Grade 50B or SANS 50025 grade S355JR, where sections sizes allow. That is, the percentage of phosphorous and sulphur shall not exceed 0,06.
- vii. The above is laid down as a standard, but tenders will also be considered for rolled steel not conforming strictly to the above standard. Full particulars of the guaranteed properties of the steel tendered for should in this case be furnished, i.e., chemical composition, tensile strength, yield point, reduction in area, bend tests, etc.
- viii. Forgings and drop forgings shall be free from flaws and surface defects of any kind and be accurately finished to the prescribed dimensions.
- ix. Steel castings shall be sound, clean and free from all defects and distortion of any kind and should, except where otherwise specified, conform with the conditions and tests specified in B.S. No. 3100/Latest Edition, for grades A, B and C according to requirements. They shall be thoroughly annealed and all working parts and bearing surfaces shall be machined and turned accurately with correct finish.
- x. Cast iron used throughout must be close grained, tough and free from all defects, and shall conform to the conditions and tests specified in B.S. 1452/Latest Edition, for grades 12 to 14 according to requirements. This applies to functional components only. A lower grade is

- acceptable for portal and machinery house ballast. Tenderers to state grade of cast iron proposed.
- xi. The dimensional and out-of-square tolerance as specified in the above Standards shall also apply to built-up components. Edge preparations, welding techniques, straight beds and material fit-up shall be considered when welded joints are designed.
  - xii. The shape of all members and connections must allow easy accessibility for maintenance painting of all surfaces. No members shall comprise a double member which cannot be painted and maintained.
  - xiii. Structural details must be so designed as to eliminate or seal off any cavities or pockets where water or condensation could collect and promote corrosion. Horizontal members with upstanding flanges require special drainage.
  - xiv. All hollow sections shall be completely closed and airtight, and all welding is to be of such size and quality as to ensure complete airtightness. No tapping or drilling of holes into sealed sections will be permitted.

c. Welding

- i. All the provisions of BS 5135 shall be complied with as far as applicable.
- ii. Design of weld joints shall be such that crevices, overlaps, pockets, arc strikes, and dead ends do not exist.
- iii. All joints shall be completely seal welded in accordance with BS 5135. Special care must be taken to prevent the ingress of moisture into the tubular members by ensuring that each such tubular member is airtight. "Stitch" welding will not be permitted. Only continuous welding will be accepted.
- iv. Weld cracks, undercut, or pock marks will not be accepted.
- v. All welds on the load bearing frame structure, containers, piping, pipeline flanges, etc., shall be continuous and shall be visually inspected for cracks and other discontinuities.
- vi. Welds on the main chords must be tested ultrasonically in accordance with BS 3923 or x-rayed in accordance with BS 2600 and those on minor joints by the dye-penetrant method. The equipment required for these tests must be supplied by the *Contractor* and the testing done at his cost.

- vii. Steel, except in minor details, which has been partially heated, shall be properly annealed.  
(Electrically welded structural members accepted.)
  - viii. All brackets, clamps, lugs, straps, suspenders, etc. required for attaching mechanical and electrical equipment must be welded on prior to erection and special precautions must be taken not to damage welds or puncture tubes during erection.
  - ix. The welding of all rails shall be done by an approved method.
  - x. Welding shall only be carried out by a coded welder according to SANS 10044, BS-EN 287 Part 1 and BS-EN 288 Part 3 or ANSI/AWS D1.1.
  - xi. All parts to be welded shall be thoroughly cleaned and dried before welding. The welding will only be done in dry surroundings and all steps taken to prevent hydrogen embrittlement.
  - xii. Where materials of different compositions are joined by welding, especially carbon steel to chrome steel, the filler welding method and post welding treatment shall be such that embrittlement and other degradation of both steel and filler is prevented.
  - xiii. It must be ensured that welded joints are ductile.
- d. Fasteners
- i. All bolts, nuts and rivets shall be manufactured in accordance with the following standards: -
    - Commercial bolts and nuts Grade 4.6 : SANS 135
    - Precision bolts and nuts Grade 8.8 : SANS 136
    - Friction Grip Bolts and nuts Grade General : SANS 10094
    - Rivets : SANS 435
  - ii. All friction grip fasteners shall be hot dip galvanised, including high tensile bolts (and their nuts and washers), structural rivets and Huck bolts.
  - iii. All holding down bolts and nuts and brackets, as well as all fixing bolts, studs, nuts and washers shall be of stainless steel. Fixing rivets shall be of either stainless steel or brass.
  - iv. Bolts and set screws shall be locked in an approved manner and shall not be stressed in tightening to beyond the recommended loads.
  - v. The quality of friction grip bolts, nuts and washers, bolt lengths, sizes of holes, tightening standards, surface condition of clamped components, shop and site assembling, and acceptance inspection of friction grip joints shall comply with the latest edition of SANS 10094. Certificates shall be supplied for all bolts of grade 8.8 and 10.9.

- vi. All bolt and rivet holes must be accurate to size and location, the centres of holes shall not be placed nearer the edge of a plate than 1,5 diameters with an extra allowance of 3mm for sheared edges. All holes in the structural work shall be drilled or otherwise punched to a diameter not exceeding 1,5mm less than the diameter of the finished hole on the die side, and afterward reamed out to the exact size
  - vii. Where possible the adjoining parts forming a connection shall be drilled or reamed together, with holes not exceeding 1,5 mm diameter the rivet or bolt for which it is made. No rough or broken edge shall be left around any of the holes.
  - viii. For turned and fitted bolts, the holes shall be accurately drilled or reamed; the diameter of the hole shall not exceed the finished diameter of the bolt by more than 0,25mm.
  - ix. The holes, after assembly of the parts, shall be true throughout the thickness of all the parts and perpendicular to the axis of the member.
  - x. Rivets shall be cup-headed or countersunk as required, unless otherwise specified. No rivet head shall contain less metal than does a length of the rivet equal to 1,25 times its diameter. All loose and defective rivets shall be cut and replaced by sound ones; also, others when required for the purpose of examining the work. Rivets shall be driven with pressure tools whenever possible and pneumatic hammers shall be used in preference to hand driving.
  - xi. All field rivets must be supplied with shanks of suitable length for pneumatic riveting.
  - xii. Bolts shall be of such a length as to accommodate a full nut when tightening up, and project at least two thread pitches beyond the nut. Excessive projection of threads beyond the nuts should be avoided.
  - xiii. All bolts having countersunk heads shall have strong feathers forged on the neck and head to prevent turning and the bolt holes shall be cut to receive same. All nuts and bolts (excluding countersunk bolts) shall be furnished with circular washers of sufficient thickness, the outside diameter being at least twice the nominal diameter of the bolt, and washers fitted correctly.
  - xiv. Where bolt heads or nuts are seated on bevelled surfaces of beams or channel flanges, bevelled washers must be inserted.
- e. Joints and Mating Surfaces of Members
- i. Mating surfaces of members to be joined by high tensile steel bolts in friction grip shall be cleaned and primed as specified for the rest of the steelwork. Mating surfaces shall lay flat against each other to eliminate gaps which may allow ingress of water. After joining, the edges

- shall be sealed with an approved brand of Butyl/ Rubber sealing compound by means of a suitable caulking gun or shall be seal welded.
- ii. Other joints shall be formed by one of the following methods:
  - iii. The mating surfaces of members shall be blast cleaned, primed and protected prior to sub-assembly by the liberal application of caulking compound. While the compound is still wet, the members shall be bolted together and caulking compound which is squeezed out shall be completely removed.
  - iv. The mating surfaces shall be protected with the full corrosion protection system as specified, the surfaces joined together and the joint so formed shall be sealed with butyl rubber sealer.
  - v. After being cleaned and primed the surface shall be joined together and the joint so formed shall be seal welded.
  - vi. The primer coating on mating surfaces must be applied not more than 4 hours after cleaning and the edges must be sealed within 3 weeks of assembly of the part.
- f. Fabricated Parts
- i. All fabricated parts shall be properly fitted during assembly to result in properly aligned equipment having a neat appearance. Fabrications of load bearing members shall have no abrupt changes in cross section and regions of severe stress concentration. All sharp corners accessible by personnel during erection or operation shall be ground, rounded, or removed by other methods.
  - ii. Burrs, welding spatter and stubs of welding wire shall be removed.
- g. Ballast or Counter Mass
- i. Tenderers must include for the supply of all necessary ballast or counter mass.
  - ii. These must preferably be of cast iron and be removable for maintenance of structural steelwork.
  - iii. Concrete ballast is not recommended but will be accepted provided the Tenderer satisfies Transnet that it will not cause corrosion of any steel parts.
  - iv. Fastenings used for removable pieces must be of non-corrosive material.
  - v. Ballast must be in suitable shapes to be secured in position against movement but in sizes easily removable for maintenance.

- vi. Lifting hooks or eyes of non-corrosive material and of adequate strength must be provided in the removable ballast pieces.
- vii. Concrete ballast must be reinforced so as to prevent cracking or breaking and must be coated with an approved corrosion protection system for concrete.

#### 1.1.12 Corrosion Protection

Please refer to the Transnet specification for corrosion protection document HE 9/2/8 attached as an annexure to this document

- **Maintenance Painting of Structures**

Areas which are only lightly corroded must be cleaned by means of high-pressure water blasting or wire brushing by power tool and the following system applied:

Coat No	Generic Description	Approved Brand Products	Dry Film Thickness (µm)
1	Surface tolerant two pack epoxy primer with aluminium pigments	Dulux/SIGMA Aluprimer  STONCOR (CHEMRITE COATINGS) Carbomastic 15  INTERNATIONAL (PLASCON) Intergard 468	125-150
2	Same as first coat OR micaceous iron oxide (MIO) epoxy	DULUX/SIGMA – Sigmacover CM MIO  INTERNATIONAL (PLASCON) Interseal 010 MIO  STONCOR (CHEMRITE COATINGS) Carboline 190 HB M.I.O. or Carboline 193 M.I.O.	125-150
3	Two component recoatable, polyurethane finish (Gloss)	DULUX/SIGMA Sigmadur gloss  INTERNATIONAL	65-75

		(PLASCON) Interthane 990  STONCOR (CHEMRITE COATINGS) Carboline 134	
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- Alternatively, the Noxyde paint system can be used, consisting of two to three coats of water based Noxyde paint to achieve a DFT of 350 to 400 microns. Where the Noxyde system is used on areas other than slightly corroded structural areas, the following additional requirements must be observed:
  - Very smooth surfaces (e.g., 3CR12, stainless steel or hot-dip galvanized components, bolts, nuts and fittings, and HT bolts): Parts must be thoroughly degreased using OptiDegreaser, washed down with potable water, and immediately when dry, a single coat of OptiPrimeAqua applied.
  - Paintable flexible sealant/mastic: Only sealant approved by the paint manufacturer may be used, and an initial coat of OptiPrimeAqua applied over it before the further coats of Noxyde are applied.
  - Bolted/riveted connections: After blasting or and/or cleaning as required, apply a coat of OptiPrimeAqua and an additional stripe coat of Noxyde, in contrasting colour, to all bolt/nut and plate edges and crevices.
- The adhesion of old coatings must be verified by doing a cross cut adhesion test on selected areas.
- The compatibility of the new paint system on the old coating must be tested and guaranteed in writing by the paint supplier.
- The work and coating system must be guaranteed for a minimum of 12 months.
- All heavily corroded areas must be shot blasted to minimum SA2, and the three-coat system indicated in clause 2.6 applied.
- Areas where the old coating is still sound need only be high pressure cleaned with a suitable solvent and coated with one of the primers suggested in clause 10.2 (as tie coat) and then with one of the top coats suggested in clause 2.6 to get the appropriate colour and finish. The minimum dry film thickness of this tie coat must be 75 microns and top coat must be 50 microns, but the previous coating colour

shall be completely obliterated to present a uniform colour.

- Note: Inorganic zinc primers shall not be re-covered with an inorganic primer, but only with an organic zinc primer.
- Repairs to the insides of all the enclosed sections of the booms as well as the insides of the crane legs, sill beams, cross beams, pylon cross bracing members etc. shall be done as above but the top coat need not be applied.

## 1.2 Construction Sequence Planning

Prior to construction the *Project Manager* and *Contractor* should plan the complete construction and erection sequence, as per the Works Information.

The planning process for construction sequence should be documented as part of the work method statement. The following should be taken into account

- Establish site limitations.
- Local street access for plant machinery and cranes
- Casting Sequence
- Overhead obstructions including overhead powerlines
- Proximity to railway and roadway
- Requirements for road and railway occupation or use
- Temporary works
- Applicable authorities' regulations
- Height access and safe working platforms
- Occupational health and safety requirements for maximum work and rest periods
- Contingency plan for worst case scenarios
- Erection stages providing flexibility to promptly discontinue works if required
- Site emergency planning and notification to relevant local authorities
- Work Plan for working near or over water and rail

The *Contractor* should submit a construction method statement and detailed construction sequence to the Engineer for approval.



## 2. List of Drawings

### 2.1 Drawings issued by the Employer

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

DRAWING NAME	DRAWING NUMBER
PORT OF DURBAN REFURBISHMENT TO BAY TERRACE:	
CONCRETE PLINTH FOR GENERATOR & FOUNDATION LAYOUTS FOR BRICKWALLS.	XDN.E.0037-1-200-S-LA-0002-01-OA

## ***Part C4: Site Information***

## ***C4.1 Site Information***

## **PART 4: SITE INFORMATION**

Core clause 11.2(16) states

"Site Information is information which

- Describes the Site and its surroundings and
- Is in the documents which the Contract Data states it is in."

In the Contract Data, reference has been made to this Part 4 of the contract for the location of the Site Information.

### **1. Description of the Site and its surroundings**

#### **1.1. General description**

The 45 Bay Terrace Building is positioned outside of the port boundary in the Point area of the eThekweni Municipality CBD. Due to the sensitivity of the zone, the Port is protected under the national key points Act 102 of 1980. Adherence to this Act is enforced by Port's Act and Port's Management, which represents the various tenants in the area and the landlord.

45 Bay Terrace is a 3-storey building, ground floor has offices, ablution facilities and kitchens and undercover parking.

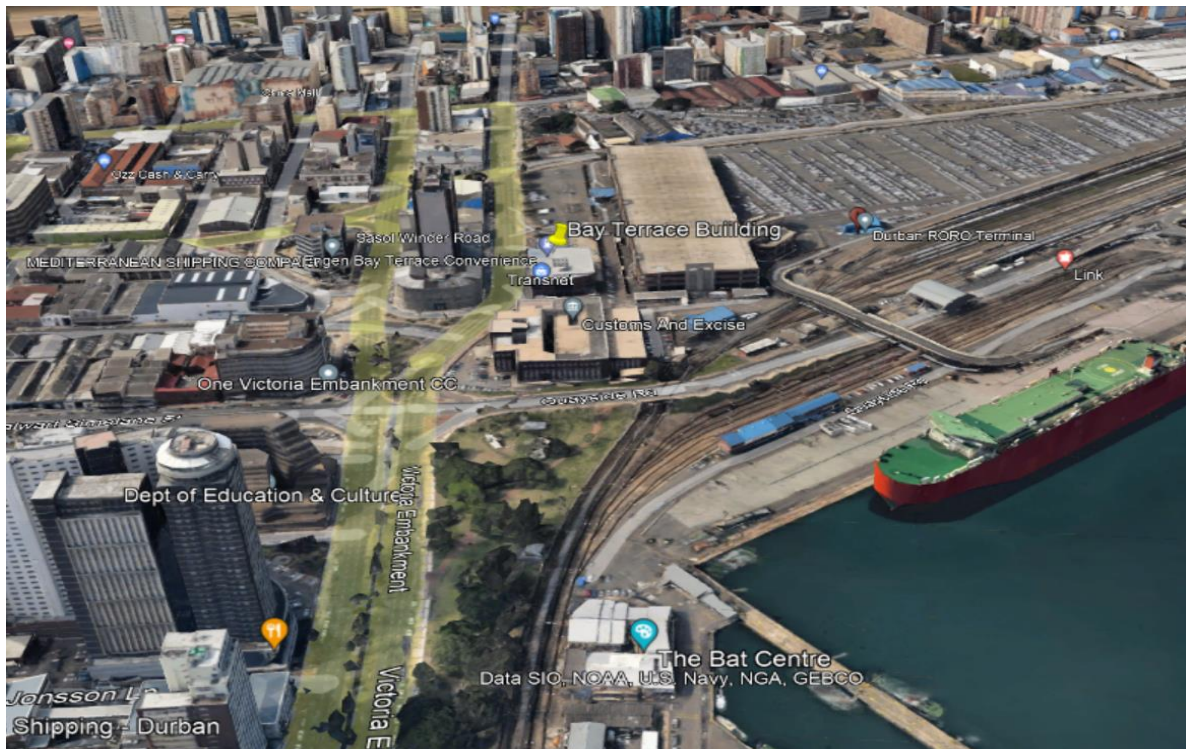
1<sup>st</sup> floor has offices, boardrooms, ablution facilities and kitchen with undercover parking.

2<sup>nd</sup> floor has offices, boardrooms, ablution facilities and kitchen.

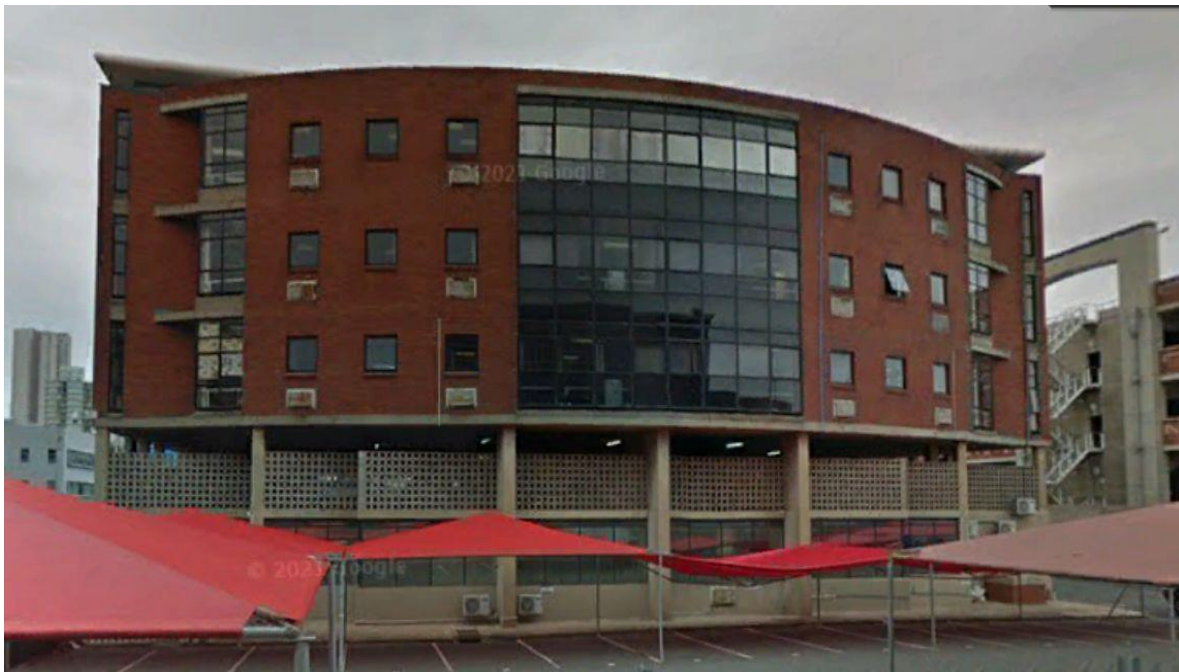
3<sup>rd</sup> floor has offices, boardrooms, ablution facilities and kitchen.

The building has two emergency stairs, one lift, currently electrical supply from the eThekweni Municipality (building impacted by load shedding with no-backup supply) and has individual split unit air-condition system that provides air conditioning to the building.

The 1<sup>st</sup> to the 2<sup>nd</sup> floor is fully occupied and the 3<sup>rd</sup> floor is partially occupied.



45 Bay Terrace Location (google maps)



45 Bay Terrace building elevation

## 2. Access and access permits

Access to the building requires access permits which shall be obtained from TNPA security offices located at Bay Terrace Building. All costs incurred in providing construction personnel with access permits shall be borne by the *Contractor*. Access certificates will be arranged by TNPA *Project Manager*. Access to the site is through Transnet security checkpoints. The *Contractor* shall take into account the *Contractor* congestion through these checkpoints when determining their transportation requirements. Unauthorized pedestrian movement within the site is not permitted unless authorised by the *Project Manager* and on routes designated by the *Project Manager* in conjunction with Port security.

### Maintaining client's access

The 45 Bay Terrace Building is positioned outside of the port boundry in the Point area of the eThekweni Municipality CBD, with the city's *Contractor* flow that should not be affected.

Access to the site will be along the Bay Terrace Road for the site and the *Contractor* is to avoid *Contractor* peak hours when accessing the site. The *Contractor* shall take every reasonable precaution to prevent damage to any roads or entrances used to access the site and shall restrict loads to avoid damages to the entrances to both sites.

The surrounding area is used by the client whose varied interests shall be protected where possible by the *Contractor* during the contract. The Contactor shall keep the safe passage of *Contractor* to, from and within the site at all times. This shall entail the provision of flagmen, protective barriers, signs, etc for protection, direction and control of *Contractor*. The *Contractor* shall maintain the speed limit of 20km/h when driving within the site.

## Permits

### Hot work permit

Hot work can create significant health and safety hazards that put workers, those around them, and the premises itself in danger. An Employer has a legal duty to ensure that risks in their workplace are assessed, controlled and monitored so that the employees remain safe from harm, including those from hot work. The Employer has identified the hazards during the risk workshop and implemented suitable controls to reduce the risks to as low as is reasonably practicable.

Where applicable, the contractor shall entail the obtaining of hot works permits in advance, in compliance with Occupational Health and Safety Act, 1993 and Construction Regulations, 2014. These shall be arranged by the Contractor with TNPA Fire department.

## Existing services

Existing services drawing will be issued by the TNPA drawing office, where necessary. Due to the potentially high density of services, the uncertainty regarding their exact locations and the sensitivity of the products and the area in general, trenching shall be by hand only and with the use of blunted equipment. The first site meeting shall include a walk about on the site where TNPA will point out known services and hazards that may not be shown on supplied plans.

In addition to the above, the *Contractor* shall consult the *NEC ECC3 Supervisor* prior to undertaking any excavation work. The *Contractor* must thereafter exercise due care and attention in carrying out the agreed excavation work as may be directed by the *NEC ECC3 Supervisor* to avoid damage or disruption to existing services.

The *Contractor* shall be liable for all claims arising out of any damage caused by such excavation, if the *Contractor* fails to exercise the requisite care and attention in carrying out the excavation. The existing services shall be protected when excavating for new services and surfacing.

The *Contractor* is required to liaise with the *NEC ECC 3 supervisor* and establish as accurately as possible, the location of the various existing services situated within the works area and record all such information on a suitable "marked -up" drawing for reference at all times.

## **Site camp**

An area will be made available for the establishment of a construction site camp. This will be pointed out at the site inspection. The *Contractor* may establish his offices, storage areas and batch plant within his site camp. Site camp security shall be the responsibility of the *Contractor*.

The construction site camp shall be clearly sign posted as such and be compliant with the relevant prevailing safety regulations and restrictions until the *Contractor* has de-established the camp and this has been approved by the *Project Manager* or *NEC ECC3 Supervisor*