Transnet Freight Rail

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

REQUEST FOR PROPOSAL (RFP)

REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS.

RFP NUMBER	**: SIG 24021CIDB (HOAC HO 40221)/1**
ISSUE DATE	**: 29 October 2026**
BRIEFING SESSION	**: Compulsory Briefing**
	1. 138 Eloff Street (09 November 2026- 11:am)
	2. Newcastle Depot CTC (11 November 2026- 11:am)
	3. Pietermaritzburg Depot (13 November 2026-11:am)
	4. Durban Depot (16 November 2026-11:am)
CLOSING DATE	**: 10 December 2026**
CLOSING TIME	**: 11h00 am**
TENDER VALIDITY PERIOD	**: 12 weeks after closing date**

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

SECTION 1: NOTICE TO TENDERERS

1. INVITATION TO TENDER

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

DESCRIPTION	**REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS) FOR A PERIOD OF FIVE (5) YEARS, ON AN "AS AND WHEN" REQUIRED BASIS**
TENDER DOWNLOADING	**This Tender may be downloaded directly from the National Treasury eTender Publication Portal at www.etenders.gov.za and the Transnet website at https://transnetetenders.azurewebsites.net (please use Google Chrome to access Transnet link) FREE OF CHARGE.NOTE:** **1.** It is the responsibility of the tenderer to ensure downloading or receipt of a complete RFP all specifications, drawings and annexures.
BRIEFING	**Our briefing session will start as follows:** **Tenderers have to attend one or all when capacity permits** **09 November 2026** **Briefing will commence at 11:am** 138 Eloff Street Johannesburg 2091. 10th floor boardroom site visit is Luuipaardsvlei coordinates are 26°7'12.90"S; 327°48'47.30"E **11 November 2026** **Briefing will commence at 11:am** Newcastle Depot CTC 1 Henville Rd, Airport Industrial Newcastle Site to visit is Danhauser coordinates are 28°01'17.00"S; 30°04'38.00"E **13 November 2026** **Briefing will commence at 11:am** Pietermaritzburg, 16 Devonshire Road Napierville, Sites to visit PMB Testroom coordinates 30 22 10.6 ; 29 36 41.7 and Napier Hill coordinates 30° 20' 36.70" 29° 37' 23.20" **16 November 2026** **Briefing will commence at 11:am** Durban is 50 Fisheagle road Bayhead, Sites to visits Trenance coordinates are 31° 00' 48.00" 29° 39' 11.00" and Port Shepstone coordinates 30° 27' 24.50" 30° 44' 33.80"

	Tenderers are required to wear safety shoes, goggles, long sleeve shirts, high visibility vests and hard hats. Tenderers without the recommended PPE will not be allowed on the site walk. Tenderers and their employees, visitors, clients and customers entering Transnet Offices, Depots, Workshops and Stores will have to undergo breathalyser testing. All forms of firearms are prohibited on Transnet properties and premises. Certificate of Attendance in the form set out in the Returnable Schedule T2.2-1 hereto must be completed and submitted with your Tender as proof of attendance is required for a compulsory site meeting and/or tender briefing. Tenderers are required to bring this Returnable Schedule **T2.2-1.** to the Compulsory Tender Clarification Meeting to be signed by the Employer's Representative. Tenderers failing to attend the compulsory tender briefing will be disqualified.
CLOSING DATE	**10 December 2026 @11:00am** Tenderers must ensure that tenders are uploaded timeously onto the system. If a tender is late, it will not be accepted for consideration.
VALIDITY PERIOD	**Twelve (12) weeks Business Days from Closing Date.** Tenderers are to note that they may be requested to extend the validity period of their tender, at the same terms and conditions, if the internal evaluation process has not been finalised within the validity period. However, once the adjudication body has approved the process and award of the business to the successful Tenderer(s), the validity of the successful Tenderer(s)' bid will be deemed to remain valid until a final contract has been concluded. **Should a bidder fail to respond to a request for extension of the validity period before it expires, that bidder will be excluded from tender process**

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://www.transnet.net);
- Click on "TENDERS";
- Scroll towards the bottom right hand side of the page;
- On the blue window click on "register on our new eTender Portal";
- 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) Each company must register its profile using its company details and use the corresponding registered profile to log an intent to bid as well as submitting any bid.

c) Transnet will not accept a bid or will disqualify a bidder who submits a bid in the Transnet e-tender submission through another bidders'/Company's profile. In other words, each bidder must register the intent to bid and submit its bid through its own profile under the same company name that will eventually bid for the tender. No company shall submit a bid on behalf of another company regardless of the company being a subsidiary or holding company.

d) In case of a Joint Venture, any of the parties/companies to the Joint Venture may use its registered profile to submit a bid on behalf of the Joint Venture.

e) 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.

f) 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 (not market related);

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, in the absence of other documents such as stamped bank letter confirmation financial support or credible funding organisations or institutions such as NEF, IDC;

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 **[T2.2-21- Breach of Law**] whether they have been found guilty of a serious breach of law during the past five [5] years.

4.12. Transnet reserves the right to perform a risk analysis on the preferred tenderer to ascertain if any of the following might present an unacceptable commercial risk to the employer:

- 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.

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

6. **NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE**

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

Supplier Number…… and Unique registration reference number……
(Tender Data

RFP CLARIFICATION REQUEST FORM

RFP No: SIG 24021CIDB (HOAC HO 40221)/1

RFP deadline for questions / RFP Clarifications: **12:00pm 26 November 2026**

TO:	Transnet SOC Ltd
ATTENTION:	Governance, Transnet Freight Rail Tender Office
EMAIL	Prudence.Nkabinde@transnet.net
Cc	Delisiwe.Mngomezului@transnet.net
DATE:	_____
FROM:	_____
	_____

Indicate whether this query is general in nature and applicable to all service categories Yes ☐ No ☐

1. For all clarification questions **prior** to the tender closing date and time, direct the communication to the RFP Administrator at **Delisiwe.Mngomezulu@transnet.net**
2. For all clarification questions **after** the tender closing date and time, direct the communication to:

TO:	Transnet SOC Ltd
ATTENTION:	Governance, Transnet Freight Rail Tender Office
EMAIL	Prudence.Nkabinde@transnet.net
Cc	Delisiwe.Mngomezulu@transnet.net
DATE:	_____
FROM:	_____

REQUEST FOR RFP CLARIFICATION

_____

_____

_____

_____

SIGNED at _____ on this _____ day of _____20___

_____

_____ _____

SIGNATURE OF TENDERER SIGNATURE OF WITNESS

_____ _____

NAME OF TENDERER NAME OF WITNESS

T1.2 TENDER DATA

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

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

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

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

Clause		**Data**
C.1.1	The *Employer* is	**Transnet SOC Ltd** **(Reg No. 1990/000900/30)**
C.1.2	The tender documents issued by the *Employer* comprise:	
	Part T: The Tender	
	Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
	Part T2 : Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
	Part C: The contract	
	Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2)
	Part C2: Pricing data	C2.1 Pricing instructions: Option A C2.2 Price List
	Part C3: Service Information	C3.1 Service Information
	Part C4: Affected Property	C4.1 Affected Property
C.1.4	The Employer's agent is:	Commercial Specialist
	Name:	Delisiwe Mngomezulu
	Address:	150 Commissioner Street, Carlton Centre, Johannesburg
	E – mail	Delisiwe.Mngomezulu@transnet.net

C.2.1 Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:

1. Step One - Eligibility with regards to attendance at the compulsory clarification meeting:

An authorised representative of the tendering entity or a representative of a tenderering entity that intends to form a Joint Venture (JV) must attend the compulsory clarification meeting in terms C2.7

Any tenderer that fails to meet the stipulated eligibility criteria will be regarded as an unacceptable tender

2. Step Two - Eligibility in terms of the Construction Industry Development Board:

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 **8GB or higher** class of construction work, are eligible to have their tenders evaluated.

b) Joint Venture (JV)

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

- every member of the joint venture is registered with the CIDB;
- the lead partner has a contractor grading designation of not lower than one level below the required grading designation in the class of construction works under consideration and possesses the required recognition status; and 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 **8GB** 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
- The tenderer shall provide a certified copy of its signed joint venture agreement

3. Step 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 **70** 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 eligibility criteria will be regarded as an unacceptable tender.

4. Step Four - Weighted scoring / 100

Commercial Scoring: 90 Points
Specific Goals: 10 Points

5. Step Five - Due Diligence

Transnet will conduct due diligence on preferred bidder to verify and validate bid submissions on the following:
Health and Safety, Risk, Environmental and Finance will be assessed

- Risk Management
- Health and Safety Management
- Environmental Management
- Financial Assessment

6. Step Six - Post Tender Negotiations

- Respondents are to note that Transnet may not award a contract if the price offered is not market-related. In this regard, Transnet reserves the right to engage in PTN with the view to achieving a market-related price or to cancel the tender. Negotiations will be done in a sequential manner i.e.:
  - first negotiate with the highest ranked bidder or cancel the bid, should such negotiations fail,
  - negotiate with the 2nd and 3rd ranked bidders (if required) in a sequential manner.
- In the event of any Respondent being notified of such short-listed/preferred bidder status, his/her bid, as well as any subsequent negotiated best and final offers (BAFO), will automatically be deemed to remain valid during the negotiation period and until the ultimate award of business.
- Should Transnet conduct post tender negotiations, Respondents will be requested to provide their best and final offers to Transnet based on such negotiations. Where a market related price has been achieved through negotiation, the contract will be awarded to the successful Respondent(s).

7. Step Six - Award of business and conclusion of contract

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.2.13.5 C2.15.1	The *Employer*'s details and identification details that are to be shown on each tender offer package are as follows: Identification details: The tender documents must be uploaded with: ▪ Name of TENDERER: ▪ Contact person and details: ▪ The Tender Number: SIG 24021CIDB (HOAC HO 40221)/1 ▪ The Tender Description: REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGION) FOR A PERIOD OF FIVE (5) YEARS, ON AN "AS AND WHEN" REQUIRED BASIS. Documents must be marked for the attention of: ***Employer*'s Agent: Delisiwe Mngomezulu**

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: **11:00am** on the **10 December 2026**
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.
Should a bidder fail respond to a request for extension of the validity period before it expires, that bidder will be excluded from tender process

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, together with the tender;
3. A Valid CIDB CRS Number in order to verify and confirm the correct and required 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.
6. The contractor shall achieve in the performance of the contract, Contract Skills Development Goal (CSDG) established in the CIDB Standard for Developing Skills through Infrastructure Contracts, **published in Gazette Notice No. 54575 of 24 April 2026**

   This will form part of the condition of contract.

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

C.3.11. The minimum number of evaluation points for functionality is: **70**

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

Only those tenderers who attain the minimum number of evaluation points 70 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:

Quality Criteria	Weighting points	Scoring Guideline
T2.2-2 Method Statement (Technical Approach) This document should detail the way each activity or process is to be completed. The method statement	**40**	0% = The tenderer has submitted no information or inadequate information to determine a score. 20% = The technical approach is limited and has only covered the one category out of seven and will not satisfy project objectives

should also outline the hazards involved and include a step-by-step guide on how to do the job safely. It should again detail control measures to be introduced to ensure the safety of anyone who will be affected by the project activities. The method statement cannot be used as safety plan but a technical approach and methodology on the actual work execution. The company special and practical knowledge in business services is required. The contractor must supply/provide and identify his/her proposed technical team. And state their job description, experience and qualifications, CVs. A company profile and organogram must be provided as well as the organogram for this specific project and existing site conditions. The critical aspect of the project is a full installation of the Equipment Housing and outdoor cabinet. Full details on excavation, the scope should cover all the 7 categories on the scope of work on how each major activity will be executed Category 1: Digital Radio Equipment Shelter Category 2: Civil Works for Structural Enhancement Category 3: Support Structure: Cable Trays (indoor and Outdoor) Category 4: Cooling: Air Conditioning Systems Category 5: Technological Security Systems Category 6: Earthing, Lightning Protection and Generator Switches Category 7: DC Backup Power Systems (Rectifiers, Batteries, Distribution Boxes and Circuit Breakers) and Hardening Battery Solutions		and requirements. 40% = The technical approach is limited and has only covered two categories out of seven and will not satisfy project objectives and requirements. 60% = The technical approach has only covered three-four categories out of seven and will not satisfy project objectives and requirements 80% = The approach is specifically tailored to address the specific project objectives and requirements and is sufficiently flexible to accommodate changes that may occur during execution. The quality plan is specifically tailored to the critical characteristics of the project. Bidder covers five-six categories of the scope of work 100% = Besides meeting the 'the 80%' rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state–of-the-art approaches. The approach paper details ways to improve the project's outcomes and the quality. The method statement fully describes how the works will be executed and corresponds with the works plan/programme. The bidder has provided a full description on how to approach and execute the installation of equipment housing and outdoor cabinets inclusive of surface preparation for foundation with an outstanding innovative approach, inclusive of covering all the 7 categories on the scope of work required.
T2.2-03 Qualifications The contractor must state and submit the qualifications of its employees for the critical work that will be done ranging from NQF level 4 to NQF level 8. Qualifications to be either Civil and Electrical engineering employees Relevant experience ranging from 1 to 5 years of experience should be outlined on civil engineering	**15**	0% = Not Submitted 20% = Submitted NQF level 4 and one-year relevant experience in civil, or electrical or mechanical as per the CV submitted 40% = Submitted NQF level 5 and two-years relevant civil, or electrical or mechanical as per the CV submitted

refurbishment of structures or buildings and Electrical works the CV including Engineering Council of South Africa (ECSA) registration.		60% = Submitted NQF level 6 and three-years' relevant experience civil, or electrical or mechanical as per the CV submitted 80% = Submitted NQF level 7- and four-years relevant experience. ECSA registered as a candidate civil, or electrical or mechanical as per the CV submitted 100% = Submitted NQF level 8 and five years' relevant experience. ECSA registered as a professional civil, or electrical or mechanical as per the CV submitted
T2.2-04 Duration of project/services required (Part B) **Focus should be on the full preparation and installation of Equipment housing upon issuing PO**	**15**	0% = Not Submitted or Program submitted but NOT in MS Projects Template/ Smart Sheet 20% = Project duration clearly stipulated in weeks, and duration is 21 working days OR above, MS Project Template/ Smar sheet 40% = Project duration clearly stipulated in weeks, and duration is in-between 16-20 working days. MS Project Template/ Smar sheet 60% = Project duration clearly stipulated in weeks, and duration is in-between 11-15 working days, MS Project Template/ Smar sheet 80% =Project duration clearly stipulated in weeks, and duration is in-between 6-10 working days, MS Project Template/ Smar sheet 100% = Project duration clearly stipulated in weeks, and duration is in-between 5 working days or less, MS Project Template/ Smar sheet
T2.2-05 Previous Experience Work Experience with respect to specific aspects of the project/ Comparable projects. Greater weight should be given to projects of a similar nature for the last 5 years. The contractor should have done and completed any type of earthworks, concrete works, installation of pre-fabricated superstructures or similar projects. **Completion certificate must be submitted as evidence**. 5 Points are to be given per completion certificate or completion letter provided, bidders who submit 5 Projects relevant Completion certificate or letter will receive full Points. Completion certificate or letter	**30**	0% = Not Submitted 20% = Contractor has limited work experience in earthworks, concrete works, installation of pre-fabricated superstructures electrical or similar projects. Project related completion letter/certificate submitted 1 Project 40% = Contractor has limited work experience in earthworks, concrete works, installation of pre-fabricated superstructures electrical or similar projects. Project related completion letter/certificate submitted 2 Projects. 60% = Contractor has relevant experience earthworks, concrete works, installation of pre-fabricated superstructures, electrical or

should include letterhead and should be signed by the service manager who was managing the project that the bidder was rendering services for. Letter or certificate must contain contactable reference.		similar projects. Project-related completion letter/certificate submitted 3 Projects 80% = Contractor has extensive experience in relation to earthworks, concrete works, installation of pre-fabricated superstructures electrical or similar projects Project-related completion letter/certificate submitted 4 Projects 100% = The contractor has outstanding experience in project earthworks, concrete works, installation of pre-fabricated superstructures electrical or similar projects. . Project related completion letter/certificate submitted 5 or More Projects

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

- T2.2-02 Method Statement (Technical Approach)
- T2.2-03 Qualifications
- T2.2-04 Duration of project/services required
- T2.2-05 Previous Experience

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.

Only tenders that achieve the minimum qualifying score for functionality will be evaluated further in accordance with the **90/10** preference points systems as described in Preferential Procurement Regulations.

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

, **thresholds**	**Minimum Threshold**
Functionality	70
Evaluation Criteria	**Final Weighted Scores**
Price	90
Specific goals - Scorecard	10
TOTAL SCORE:	**100**

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

SUMMARY: Applicable Thresholds and Final Evaluated Weightings

Selected Specific Goal	**Number of points allocated (10)**
B-BBEE Level of Contributor (1 or 2)	3
Entities that are at least 50% black Youth Owned	2
Local Content Designated sectors and thresholds: Steel products and components for construction= 1 points Plastic/pvc pipes = 1 points Steel power pylons 100%= 1 points electrical cable products 90%= 1 points Industrial lead batteries 50%= 1 points T2.2-15a Local Content Annexures C, D and E **Please note we will have varying points allocation depending on how they complete LC annexures** **All annexures C D and E submitted and fully completed per sector =1 full points** **No submission at all= 0 points**	5
Non-Compliant and/or B-BBEE Level 3-8 contributors	0

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

Specific Goals	**Acceptable Evidence**
B-BBEE Status contributor	B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
Entities that are at least 50% black Youth Owned	Certified copy of ID Documents of the Owners and B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
Local Content and Local Production	Returnable Local Content and production (Fully completed, declared and signed Annexures C D and E all sectors'
Promoting exports Orientated for Job creation	**T2.2.23** Job Creation Schedule Returnable documents

The maximum points for this bid are allocated as follows:

DISCRIPTION	POINTS
PRICE	**90**
B-BBEE STATUS LEVEL OF CONTRIBUTION (1 or 2)	**3**
Entities that are at least 50% black Youth Owned	**2**
Local Content and Production Returnable Local Content and production Annexures Steel products and components for construction= 1 points Plastic/pvc pipes = 1 points Steel power pylons 100%= 1 points electrical cable products 90%= 1 points Industrial lead batteries 50%= 1 points T2.2-15a Local Content Annexures C, D and E Please note we will have varying points allocation depending on how they complete LC annexures All annexures C D and E submitted and fully completed per sector =1 full points No submission at all= 0 points	**5**
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.

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 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.

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

STAATSKOERANT, 8 AUGUSTUS 2019

DEPARTMENT OF PUBLIC WORKS
NOTICE 423 OF 2019

STANDARD FOR UNIFORMITY IN ENGINEERING AND CONSTRUCTION WORKS CONTRACTS
AUGUST 2019

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.

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.

T2.1 List of Returnable Documents

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

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

Stage Three as per CIDB: Eligibility Criteria Schedule - CIDB Registration

2.1.1 Stage Two as per CIDB: these schedules will be utilised for evaluation purposes:

T2.2-02 **Evaluation Schedule: Method Statement**

T2.2-03 **Evaluation Schedule - Management & CV's of Key Personnel**

T2.2-04 **Evaluation Schedule:** Duration of project/services required (Timelines)

T2.2-05 **Evaluation Schedule :** Previous expériences

2.1.2 Returnable Schedules:

Returnable Schedules General:

T2.2-06 Health and Safety Management

T2.2-06a: Health and Safety Questionnaire

T2.2-06b: Health and Safety Cost Breakdown

T2.2-06c**:** Compliance Specification for Contractors

T2.2-06d- Mandatary Agreement

T2.2-06e Letter of Good Standing

T2.2-07 Risk Elements

T2.2-07a Environmental Management Plan

T2.2-08 Changes to tender document

T2.2-9 Affected Property Establishment Requirements

T2.2-10 Authority to submit tender.

T2.2-11 Record of addenda to tender documents.

T2.2-12 Capacity and Ability to meet Delivery Schedule

T2.2-13 Availability of Equipment and Other Resources

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

Agreement and Commitment by Tenderer:

T2.2-14 CIDB SFU ANNEX G Compulsory Enterprise Questionnaire

T2.2-15 Supplier Code of Conduct

T2.2-16 Unilateral Non-Disclosure Agreement

T2.2-17 Supplier declaration form

T2.2-18 RFP Declaration Form

T2.2-19 Certificate of Acquaintance with Tender Document Pact

T2.2-20 Service Provider Integrity Pact

T2.2-21 Request for quotation – Breach of law

T2.2-22 Job-Creation Schedule

T2.2-23 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

2.1.3 Bonds/Guarantees/Financial/Insurance:

T2.2-24 Insurance provided by the Contractor.

T2.2-25 Three (3) years audited financial statements.

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

2.3 C1.2 Contract Data Part 2 (Data by Contractor)

2.4 C2.2 Price List

Part T2.2: Returnable Schedules

T2.2-01: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting

1. 138 Eloff Street Johannesburg 2091. 10th floor boardroom
(09 November 2026)

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 .....

T2.2-01: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting

2. Newcastle Depot CTC 1 Henville Rd, Airport Industrial (11 November 2026)

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 .....

T2.2-01: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting

3. Pietermaritzburg, 16 Devonshire Road Napierville,
(13 November 2026)

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 .....

T2.2-01: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting

4. Durban is 50 Fisheagle road Bayhead,
(16 November 2026)

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: Evaluation Schedule: Method Statement

Note to tenderers:

This document should detail the way each activity or process is to be completed. The method statement should also outline the hazards involved and include a step-by-step guide on how to do the job safely. It should again detail control measures to be introduced to ensure the safety of anyone who will be affected by the projects activities. The method statement cannot be used as safety plan but a technical approach and methodology on the actual work execution. The company special and practical knowledge in business services is required. The contractor must supply/provide and identify his/her proposed technical team. And state their job description, experience and qualifications, CVS. A company profile and organogram must be provided as well as the organogram for this specific project and existing site conditions. The critical aspects of the project is a full installation of the Equipment Housing and outdoor cabinet. Full details on excavation, the scope should cover all the 7 categories on the scope of work on how each major activities will be executed

Category 1: Digital Radio Equipment Shelter
Category 2: Civil Works for Structural Enhancement
Category 3: Support Structure: Cable Trays (indoor and Outdoor)
Category 4: Cooling: Air Conditioning Systems
Category 5: Technological Security Systems
Category 6: Earthing, Lightning Protection and Generator Switches
Category 7: DC Backup Power Systems (Rectifiers, Batteries, Distribution Boxes and Circuit Breakers) and Hardening Battery Solutions

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

Score 0	The tenderer has submitted no information or inadequate information to determine a score.
Score 20	The technical approach is limited and has only covered the one category out of seven and will not satisfy project objectives and requirements.
Score 40	The technical approach is limited and has only covered two categories out of seven and will not satisfy project objectives and requirements.
Score 60	The technical approach has only covered four categories out of seven and will not satisfy project objectives and requirements
Score 80	The approach is specifically tailed to address the specific project objectives and requirements and is sufficient flexible to accommodate changes that may occur during execution. The quality plan is specifically tailed to the critical characteristics of the project. Bidder covers five categories of the scope of work
Score 100	Besides meeting the 'good' rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state –of-the-art approaches. The approach paper details ways to improve the project outcomes and the quality. The method statement fully describes how the works will be executed and is corresponding with the works plan/programme. The bidder has provided a full description on how to approach and execute the installation of equipment housing and outdoor cabinet inclusive off surface preparation for foundation with an outstanding innovative approach, inclusive of covering al the 7 categories on the scope of work required.

T2.2-03: Evaluation Schedule - Management & CV's of Key Personnel

1. The contractor must state and submit the qualifications of its employees for the critical work that will be done ranging from NQF level 4 to NQF level 8. Qualifications to be either Civil and Electrical engineering employees Relevant experience ranging from 1 to 5 years of experience should be outlined including Engineering Council of South Africa (ECSA) registration

2. The experience of assigned key persons in relation to the scope of work will be evaluated from three different points of view, namely:
   i. The education, training and skills of the assigned staff in the specific sector, field, subject, etc. which is directly linked to the Scope of Works. Proof of education and training must be attached to the C.V.
   ii.
3. Comprehensive CV's should be attached to this schedule:
4.

   As a minimum each CV should address the following, but not limited to;
   i. Personal particulars
      a. Name
      b. Place (s) of tertiary education and dates associated therewith
      c. Professional awards
   ii. Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)
   iii. Name of current employer and position in enterprise
   iv. Overview of post graduate experience (year, organization and position)
   v. Outline of recent assignments / experience that has a bearing on the Scope of Works

List of Key Persons assigned to the above disciplines

No.	Key Persons	Name and Surname	CV attached (Yes/No)
1			
2			
3			
4			
5			
6			

The scoring of the Management & CV's of Key Persons will be as follows:

Score 0	Failed to provide information No response.
Score 20	Submitted NQF level 4 and relevant experience
Score 40	Submitted NQF level 5 and relevant experience
Score 60	Submitted NQF level 6 and relevant experience
Score 80	Submitted NQF level 7 and relevant experience. ECSA registered as a candidate
Score 100	Submitted NQF level 8 and relevant experience. ECSA registered as a professional

Index of documentation attached to this schedule:

.....

.....

.....

.....

T2.2-04: TIMELINES

Duration of project/services required (Part B)

Focus should be on the full preparation and installation of Equipment housing upon issuing PO

The scoring of the timelines will be as follows:

Score 0	Not Submitted or Program submitted but NOT in MS Projects Template
Score 20	Project duration clearly stipulated in weeks and duration is 21 working days OR above,
Score 40	Project duration clearly stipulated in weeks and duration is in-between 16-20 working days.
Score 60	Project duration clearly stipulated in weeks and duration is in-between 11-15 working days
Score 80	Project duration clearly stipulated in weeks and duration is in-between 6-10 working days
Score 100	Project duration clearly stipulated in weeks and duration is in-between 5 working days or less

Index of documentation attached to this schedule:

.....

.....

.....

.....

T2.2-05: Evaluation Schedule: Previous Experience

Note to tenderers:

Work Experience with respect to specific aspects of the project/ Comparable projects. Greater weight should be given to projects of a similar nature for the last 5 years. The contractor should have done and completed any type of earthworks, concrete works, installation of pre-fabricated superstructures or similar projects. Completion certificate must be submitted as evidence. 5 Points are to be given per completion certificate provided, bidders who submit 5 Project relevant Completion certificate will receive full Points

Certificate must include company details and contactable references

Index of documentation attached to this schedule

	DOCUMENT NAME
1	
2	
3	
4	
5	
6	
7	

Score	Previous Experience
0	Not Submitted
20	Contractor has limited work experience in earthworks, concrete works, installation of pre-fabricated superstructures or similar projects. Project related completion letter/certificate submitted 1 Project
40	Contractor has limited work experience in earthworks, concrete works, installation of pre-fabricated superstructures or similar projects. Project related completion letter/certificate submitted 2 Projects.
60	Contractor has relevant experience earthworks, concrete works, installation of pre-fabricated superstructures or similar projects, but has not dealt with the critical issues specific to the project assignment. Project-related completion letter/certificate submitted 3 Projects
80	Contractor has extensive experience in relation to earthworks, concrete works, installation of pre-fabricated superstructures or similar projects. project and has worked previously under similar conditions & circumstances. Project-related completion letter/certificate submitted 4 Projects
100	Contractor has extensive experience in relation to earthworks, concrete works, installation of pre-fabricated superstructures or similar projects. project and has worked previously under similar conditions & circumstances. Project-related completion letter/certificate submitted 4 Projects

T2.2-06: Health and Safety Requirements [Assessment Schedule]

Submit the following documents as a minimum with your tender:

1. The Tenderers must provide their own project specific health and safety Plan.
2. Health and safety cost breakdown (Bill of Quantities)
3. Safety, Policy signed by the Chief Executive Officer, must include or cover the following 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.

4. Table or outline the Roles & Responsibilities, such as S16.2 CEO, CR8.1 Construction manager, CR8.2 Assistant Construction manager, CR8.5 Safety officer, CR8.7 Construction Supervisor, CR8.8 Construction assistant supervisor, CR9.1 Risk Assessor, 17.1 SHE Reps, etc. as per the Occupational health and safety Act 85 of 1993
5. List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management and highlight training planned dates.
6. Overview of the project specific Baseline Risk Assessment (RA), indicating major activities of the project
7. **Three years** synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.
8. Complete and return with tender documentation the Contractor Safety Questionnaire included as an Annexure B.

Attached submissions to this schedule:

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T2.2-06a: Health and Safety Questionnaire

1. SAFE WORK PERFORMANCE

1A. Injury Experience / Historical Performance - Alberta

Use the previous three years injury and illness records to complete the following:

Year			
Number of medical treatment cases			
Number of restricted work day cases			
Number of lost time injury cases			
Number of fatal injuries			
Total recordable frequency			
Lost time injury frequency			
Number of worker manhours			

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 Work Day Case	Any occupational injury or illness that prevents a worker from performing any of his/her craft jurisdiction duties
3 – Lost Time injury Cases	Any occupational injury that prevents the worker from performing any work for at least one day
4 – Total Recordable Frequency	Total number of Medical Treatment, Restricted Work and Lost Time Injury cases multiplied by 200,000 then divided by total manhours
5- Lost Time Injury Frequency	Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours

1B. Workers' Compensation Experience

Use the previous three years injury and illness records to complete the following (if applicable):

Industry Code:	Industry Classification:

Year			
Industry Rate			
Contractor Rate			
% Discount or Surcharge			

Is your Workers' Compensation account in good standing? ☐ Yes ☐ No
(Please provide letter of confirmation)

2. CITATIONS

2A. Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years?
☐ Yes ☐ No
If yes, provide details:

2B. Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State?
☐ Yes ☐ No
If yes, provide details:

3. CERTIFICATE OF RECOGNITION

Does your company have a Certificate of Recognition?
☐ Yes ☐ No If Yes, what is the Certificate No. _____ Issue Date _____

4. SAFETY PROGRAM

Do you have a written safety program manual? ☐ Yes ☐ No
If Yes, provide a copy for review

Do you have a pocket safety booklet for field distribution? ☐ Yes ☐ No
If Yes, provide a copy for review

Does your safety program contain the following elements:

	YES	NO		YES	NO

CORPORATE SAFETY POLICY	☐	☐	EQUIPMENT MAINTENANCE	☐	☐
INCIDENT NOTIFICATION POLICY	☐	☐	EMERGENCY RESPONSE	☐	☐
RECORDKEEPING & STATISTICS	☐	☐	HAZARD ASSESSMENT	☐	☐
REFERENCE TO LEGISLATION	☐	☐	SAFE WORK PRACTICES	☐	☐
GENERAL RULES & REGULATIONS	☐	☐	SAFE WORK PROCEDURES	☐	☐
PROGRESSIVE DISCIPLINE POLICY	☐	☐	WORKPLACE INSPECTIONS	☐	☐
RESPONSIBILITIES	☐	☐	INVESTIGATION PROCESS	☐	☐
PPE STANDARDS	☐	☐	TRAINING POLICY & PROGRAM	☐	☐
ENVIRONMENTAL STANDARDS	☐	☐	COMMUNICATION PROCESSES	☐	☐
MODIFIED WORK PROGRAM	☐	☐			

5. TRAINING PROGRAM

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

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

	YES	NO		YES	NO
GENERAL RULES & REGULATIONS	☐	☐	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. Do you have a program for training newly hired or promoted supervisors? ☐ Yes ☐ No

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

	Yes	No		Yes	No
EMPLOYER RESPONSIBILITIES	☐	☐	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	☐	☐

6. SAFETY ACTIVITIES

Do you conduct safety inspections? Yes No Weekly Monthly Quarterly

☐ ☐ ☐ ☐ ☐

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

Who follows up on inspection action items? _____

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

Yes	No	Daily	Weekly	Biweekly
☐	☐	☐	☐	☐

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

Yes	No	Weekly	Biweeky	Monthly
☐	☐	☐	☐	☐

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

Is the process documented? ☐ Yes ☐ No

Who leads the discussion? _____

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

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

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

☐ Yes ☐ No

How does your company measure its H&S success?

- Attach separate sheet to explain

7. SAFETY STEWARDSHIP

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

	Yes	No	Monthly	Quarterly	Annually
Project/Site Manager	☐	☐	☐	☐	☐
Managing Director	☐	☐	☐	☐	☐
Safety Director/Manager	☐	☐	☐	☐	☐
/Chief Executive Officer	☐	☐	☐	☐	☐

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

	Yes	No	Monthly	Quarterly	Annually
Incidents totaled for the entire company	☐	☐	☐	☐	☐
Incidents totaled by project	☐	☐	☐	☐	☐
• Subtotaled by superintendent	☐	☐	☐	☐	☐
• Subtotaled by foreman	☐	☐	☐	☐	☐

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

	Yes	No	Monthly	Quarterly	Annually
Costs totaled for the entire company	☐	☐	☐	☐	☐
Costs totaled by project	☐	☐	☐	☐	☐
• Subtotaled by superintendent	☐	☐	☐	☐	☐
• Subtotaled by foreman/general foreman	☐	☐	☐	☐	☐

7D Does your company track non-injury incidents?

Yes	No	Monthly	Quarterly	Annually

Near Miss	☐	☐	☐	☐	☐
Property Damage	☐	☐	☐	☐	☐
Fire	☐	☐	☐	☐	☐
Security	☐	☐	☐	☐	☐
Environmental	☐	☐	☐	☐	☐

8 PERSONNEL

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

Name	Position/Title	Designation

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

Name	Address	Telephone Number

Other responsibilities:

9 REFERENCES

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

Name and Company	Address	Phone Number

T2.2-06b: Health and Safety Cost Breakdown

NB: This Safety Cost breakdown is required to illustrate to Transnet that safety costs have been factored into your tender price and will not be paid for as a separate expense.

Tenderer (Company)	**Responsible Person**	**Designation**	**Date**

Project/Tender Title	**Project/Tender No.**	**Project Location / Description**
REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGION) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS.	SIG 22015CIDB (HOAC HO 40221)/1	CENTRAL REGION

#	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			
15.	Other			

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

T2.2-06c TRANSNET RAIL INFRASTRUCTURE MANAGER SAFETY HEALTH AND ENVIRONMENTAL (SHE) COMPLIANCE SPECIFICATIONS FOR CONTRACTORS

CONTRACT NAME:	To appoint service providers to provision the radio high sites refurbishment works to enable digital radio communication network nationally on an as and when required basis.	
CONTRACT SCOPE:	Category 1: Digital Radio Equipment Shelter Category 2: Civil Works for Structural Enhancement Category 3: Support Structure: Cable Trays (indoor and Outdoor) Category 4: Cooling: Air Conditioning Systems Category 5: Technological Security Systems Category 6: Earthing, Lightning Protection and Generator Switches Category 7: DC Backup Power Systems (Rectifiers, Batteries, Distribution Boxes and Circuit Breakers) and Hardening Battery Solutions.	
CONTRACT LOCATION:	Countrywide	
CONTRACT DURATION:	As and when required basis	
CONTRACT MANAGER:	Mzamo Tikwayo	
TRIM TECHNICAL OFFICER:	Mzamo Tikwayo	
SHE SPECIFICATION APPROVAL		
TITLE:	**NAME:**	**SIGNATURE:**
TRIM CONTRACT MANAGER / TECHNICAL OFFICER / TRIM AGENT	Mzamo Tikwayo	**.....** **DATE:**
RISK / ENVIRONMENTAL SPECIALIST	Alice Ramuhulu	**.....** **DATE:**
SAFETY SPECIALIST / MANAGER	Kedibone Moselane	**.....** **DATE:**

1. Introduction

1.1 This Safety, Health and Environmental (SHE) specification is Transnet Rail Infrastructure Manager (TRIM) minimum requirements to be met by contractors when performing work for or on behalf of TRIM. They set out the requirements to be followed by the Contractor and other contractors so that the health and safety of all person's potentially at risk may receive the same priority as other facets of the contract.

1.2 The Contractor shall **develop a SHE plan and prepare a SHE file** based on these requirements, risk assessment as well as all the relevant applicable legislation. The contractor shall remain accountable for the quality and execution of his health and safety programme for his employees and sub-contractor employees. This specification in no way releases the contractors from compliance with the relevant legislation.

2 Purpose

2.1 The purpose of this specification is to ensure that the Contractor provides and maintains, as far as reasonably practicable a safe working environment for all employees and the public whilst performing work for or on behalf of TRIM.

2.2 This specification form an integral part of the contract, and the Contractor shall forward this specification to all subcontractors at the bidding stage so that they can in turn prepare health and safety plans relating to their operations

2.3 This Specification will be reviewed and updated periodically as and when necessary to address and / or include:

- Changes in legislation.
- Client requirements.
- Leading practices; and
- Lessons learnt from incidents

3 Scope and Application

3.1 This specification is applicable to all contractors, suppliers and all activities and processes carried out for or on behalf of Transnet Rail Infrastructure Manager. The Specification defines the strategies to manage Health and Safety and is a compliance document drawn up in terms of the Occupational Health and Safety Act 85 of 1993, railway safety, act no. 30 of 2024 requirements as applicable.

3.2 This specification shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the TRIM Contract Manager/Technical Officer with full particulars of such subcontractors and shall ensure that they comply with the OHS Act and Regulations and Transnet's safety requirements and procedures.

3.3 Every effort has been made to ensure that this specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Contractor from his responsibilities and accountability in respect of the contract to which this specification document pertains. Any such inaccuracies, inconsistencies and/or inadequacies shall immediately be brought to the attention of the TRIM Contract Manager/Technical Officer or Client Agent.

4 General

4.1 The Contractor and Transnet Rail Infrastructure Manager are individual employers, each in its own right, with their respective duties and obligations set out in the Occupational Health and Safety Act, Act 85 of 1993 (herein referred as the OHS Act) and applicable Regulations.

4.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the OHS Act, his obligations as an employer in respect of all persons in his employ, other persons on the premises or the Site or place of work or on the work to be executed by him, and under his control. The Contractor shall, before commencement with the execution of the contract work, comply with the provisions set out in

the OHS Act, and shall implement and maintain a SHE Plan approved by Transnet Rail Infrastructure Manager, on the Site and place of work for the duration of the contract.

4.3 The Contractor accepts his obligation to complying with the OHS Act and applicable Regulations notwithstanding the omission of some of the provisions of the OHS Act and the Regulations from this document.

4.4 Transnet Rail Infrastructure Manager accepts, in terms of the OHS Act, its obligations as an employer of its own employees working on or associated with the site or place of work, and the Contractor and TRIM Contract Manager/Technical Officer or his deputy shall at all times, co-operate in respect of the health and safety management of the site, and shall agree on the practical arrangements and procedures to be implemented and maintained during execution of the works

4.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

5. Section 37(2) Agreements

5.1 Transnet Rail Infrastructure Manager and the Contractor shall enter into an agreement in terms of section 37(2) of the Occupational Health and Safety Act to the arrangements and procedures between them to ensure compliance by the Contractor with the provisions of the OHS Act.

5.2 The agreement shall be completed and signed by the Contractor mandated representative as soon as possible and returned to the relevant TRIM Project Manager / TRIM Contract Manager for his/her signature on behalf of TRIM.

5.3 The Contractor shall enter into a Section 37(2) Agreement with their respective sub-contractors. Signed copy of such agreement shall be kept on the Contractor's SHE file.

6. Definitions

6.1 In this Specification the definitions as listed in the Occupational Health and Safety Act 85 of 1993 and Construction Regulations, 2014, Electrical Installation Regulations, Electrical Machinery Regulations and Transnet Contractor Management Procedure shall apply, unless the context otherwise indicates: -

6.1.1 "**competent person"** means a person who—

a) has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training shall be regarded as the required qualifications and training; and

b) is familiar with the Act and with the applicable regulations made under the Act;

6.1.2 **"contractor"** means an employer (organisation) or a person who performs ANY work and has entered into a legal binding business agreement contract to supply a product or provide services to Transnet. This applies to the Suppliers, Vendors, Consultants, Service Providers or Contractors. NB: A contractor is an employer in his/her own right (includes Principal Contractor and subcontractor);

6.1.3 **"Communicable disease"** means infectious diseases, are the illnesses caused by microorganisms like bacteria, viruses, fungi, or parasites. Example COVID 19

6.1.4 "**electrical contractor"** means a person who undertakes to perform electrical installation work on behalf of any other person, but excludes an employee of such first –mentioned person

6.1.5 "**excavation work"** means the making of any man-made cavity, trench, pit, or depression formed by cutting, digging, or scooping

6.1.6 **"fall protection plan "**means a documented plan, which includes and provides for-

a) all risks relating to working from a fall risk position, considering the nature of work undertaken;

b) the procedures and methods to be applied in order to eliminate the risk of falling; and

c) a rescue plan and procedures

6.1.7 **"fall risk"** means any potential exposure to falling either from, of or into

6.1.8 **"health and safety (SHE) plan"** means a site, activity or contract specific documented plan in accordance with the client's health and safety specification;

6.1.9 **"risk assessment"** means a programme to determine any risk associated with any hazard at a work site, in order to identify the steps needed to be taken to remove, reduce or control such hazard

6.1.10 **"Safety, Health and Environmental (SHE) File"** means a file or other record in permanent form, containing the information required to be kept on site in accordance with the OHS Act and applicable Regulations;

6.1.11 **"TRIM"** means Transnet Rail Infrastructure Manager, a division of Transnet SOC Ltd (Registration No. 1990/000900/30), a public company incorporated in accordance with the company laws of the Republic of South Africa

6.1.12 " **TRIM Contract Manager"** means a Transnet employee who is authorised to represent Transnet in terms of the contract and appointed to supervise and/or liaise with the contractor to ensure that the specifications of the contract are met (with special emphasis on technical specifications, inspection of quality, on health and safety, environment and quantity work). A Contract manager has the role of executing the plan to achieve the deliverables. This person receives all his authorisations from the contract initiator and the stakeholders. (It includes a Technical Officer, Maintenance Manager, Operations Manager, Security Depot Manager, Security Inspector, Maintenance Supervisor's etc)

7. Notification of Construction Work

7.1 The Contractor who intends to carry out any construction work other than work where a Construction Work Permit is required, shall at least 7 days before carrying out such work, notify the Provincial Director of the Department of Labour in writing if the construction work: -

(a) includes excavation work

(b) includes working at a height where there is a risk of a person falling.

(c) includes the demolition of a structure; or

(d) includes the use of explosives to perform construction work,

7.2 The notification to the Provincial Director shall be on a form similar to Annexure 2 of the Construction Regulations, 2014. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, TRIM Contract Manager/Technical Officer or employee.

8. Letter of Good standing

8.1 The Contractor shall submit proof of registration and Letter of Good Standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Diseases Act, 1993 (Act No. 130 of 1993) for his company and each of his sub-contractors'.

8.2 No contractor may do any work for TRIM without a valid letter of good standing. The Contractor shall ensure that the Letter of Good Standing remains valid for the duration of the contract period.

8.3 The letter of good standing shall reflect the name of the Contractor and/or Sub-contractor, registration number and expiry date.

9. Management and Supervision

9.1 The Contractor and all subcontractors shall submit a SHE organogram outlining the site SHE management structure including the relevant appointments/competent persons or the intended appointments where such appointments have not been made.

9.2 The Contractor shall, in accordance with the OHS Act and applicable Regulations, make all the necessary appointments of competent persons in writing. Copies should also be retained on the SHE file.

9.4 Subcontractors shall also make written appointments, and the Contractor shall deliver copies thereof to the TRIM Contract Manager/Technical Officer.

9.5 Contractor Health and Safety Officers

The contractor shall appoint a full-time Construction Health and Safety Officer for the duration of the contract who is registered with the SACPCMP (The South African Council for Project Construction Management Professions).
The Construction Health and Safety Officer shall have sound knowledge of the Occupational Health and Safety Act and its regulations, SANS 3000-1:2016, National Environmental Management Act, and associate environmental requirements such as Waste and Water Acts and Hazard Identification and Risk Management processes.
The contractor shall ensure that each Construction Health and Safety Officer is adequately equipped to enable him to perform his duties effectively.

10. SHE Committee Meetings and SHE Representatives

10.1 When required by legislation, The Contractor and subcontractors shall appoint SHE Representative/s in writing after consultation with employees and ensure that they are trained in performing their duties.

10.2 SHE Representatives duties shall include inspections of the workplace, taking part in incident investigations, risk assessments, attending SHE Committee meetings etc. Records of monthly inspections of SHE Representatives shall be kept on the SHE file.

10.3 The number of SHE Representatives appointed shall be in accordance with the requirements of the Occupational health and Safety Act 85 of 1993.

10.4 When required by legislation, the Contractor shall ensure that a SHE Committee meeting is held monthly and minutes of such meeting shall be recorded and records kept on the SHE file. The Contractor representative and appointed SHE representatives shall attend the monthly SHE Committee meeting.

10.5 The TRIM Contract Manager/Technical Officer or his deputy shall be allowed to attend meetings of the Contractor's health and safety committee as an observer.

10.6 Subcontractors appointed by the Contractor shall have their own internal monthly SHE Committee meeting.

11. SHE Audits and Contractor Monthly Reports

11.1 The TRIM Contract Manager/Technical Officer or his deputy shall ensure that the Contractor's SHE Plan is audited at intervals mutually agreed to between them, but at least once every month to ensure that the SHE Plan is implemented and maintained on site.

11.2 TRIM Safety Officers / Specialists shall at all reasonable times be allowed access to the work sites, the Contractor site offices and tool-sheds to inspect the Contractor's and its subcontractor's tools, equipment, registers and workplace.

11.3 Should any non-compliances or contraventions to the TRIM safety requirements, legal requirements, this specification or the Contractor's SHE Plan be identified, such non-compliances or contraventions shall be rectified by the contractor at its cost immediately or within a period specified by the TRIM Contract Manager/Technical Officer, his deputy, or TRIM Safety Officers / Specialists.

11.4 Should the Contractor refuse or fail to rectify such non-compliances or contraventions, TRIM may take remedial action at the Contractor's cost as it may deem necessary to ensure safety at the TRIM sites at all times.

11.5 TRIM reserves the right to conduct safety audits without prior warning.

11.6 The Contractor on all contracts of more than 1 month shall provide a monthly safety performance report as required by TRIM.

11.7 The Monthly safety performance report shall be compiled in terms of Annexure 1 or in any format that the Contractor has as long as it includes all items listed in Annexure 1.

12. Training, Competence and Awareness

12.1 Induction Training

12.1.1 The Contractor shall ensure that all his employees and subcontractors employees undergo a TRIM SHE Induction with regard to the general hazards prevalent on the site, rules and regulations, and other related aspects before commencing work. It is the responsibility of the contractor to inform TRIM whenever new employees are appointed after the initial induction was conducted.

12.1.2 In addition to the TRIM SHE induction, it is the responsibility of the Contractor to develop and implement a site specific SHE Induction programme, a job specific induction programme and a general employee SHE awareness programme, to develop awareness amongst employees on the generic SHE issues associated with the scope of work and the specific environmental issues in question.

12.1.3 The Contractor shall ensure that all visitors and suppliers to the site undergo and comply with Contractors' site-specific safety induction requirement prior to being allowed access to site. All visitors and suppliers shall sign the attendance register.

12.1.4 All visitors and suppliers shall wear the necessary personal protective equipment whilst on site and shall remain in the care of the host who understand the scope of work and associated risks.

12.1.5 The Contractor shall maintain comprehensive attendance records of SHE induction training on the SHE file.

12.2 Competency / Training

12.2.1 The Contractor shall ensure that all his employees are adequately trained to perform the tasks allocated to them and that there is the requisite amount of supervision at all times to maintain safe work practices and standards.

12.2.2 The Contractor shall identify training requirements of employees whose work may have a significant impact on their health and safety or that might create a significant impact upon the environment and ensure that these employees will receive appropriate training. A Training matrix shall be used as a mechanism to manage and control the training of employees.

12.2.3 The Contractor shall identify all training needs and incorporate the site-specific training into the SHE plan.

12.2.4 Each Contractor shall be required to ensure that before an employee commences work on the contract that the supervisor in control with responsibility for the employee has informed the employee of his scope of authority and any hazards associated with the work performed. This will include man-job specifications, the discussion of any standard task procedures or hazardous operational procedures to be performed by the employee

12.2.5 The Contractor is to ensure that the supervisor has satisfied himself that the employee is conversant with all hazards associated with any work to be performed by conducting task observations.

12.2.6 The Contractor shall ensure that certificate/s of competence where applicable is/are provided in the SHE File.

12.3 Awareness Training

12.3.1 Awareness training required shall be identified for all employees on the contract using the SHE Policy, the SHE Plan, the SHE programmes and procedures.

12.3.2 The Contractor shall have a daily safety talk. This talk shall include subcontractor employees.

12.3.3 The talk shall be brief and concise. Subject topics should be applicable to the job at hand, incidents, accidents and up-and-coming work will be discussed along with suggestions and comments. These meetings can be used as a training meeting with the central idea of educating employees.

13. Health and Safety Plan (SHE Plan)

13.1 Potential Contractor submitting tenders shall submit with their tender, a Health and Safety Plan setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the OHS Act and Regulations, this SHE specification and particularly in respect of: -

(a) The provision, as far as is reasonably practical, of a working environment that is safe and without risk to the health of his employees and subcontractors in terms of section 8 of the OHS Act.

(b) the execution of the contract work in such a manner as to ensure in terms of section 9 of the OHS Act that persons other than those in the Contractor's employment, who may be directly affected by the contract work are not thereby exposed to hazards to their health and safety.

(c) ensuring, as far as is reasonably practical, in terms of section 37 of the OHS Act that no employee or subcontractor of the Contractor does or omits to do any act which would be an offence for the Contractor to do or omit to do.

13.2 The Contractor's Health and Safety Plan shall be based on a risk assessment in respect of the hazards to health and safety of his employees and other persons under his control that are associated with or directly affected by the Contractor's activities in performing the contract work and shall establish precautionary measures as are reasonable and practical in protecting the safety and health of such employees and persons.

13.3 The SHE Plan shall include full particulars in respect of: -

(a) Safety Management Structure arrangements i.e. Appointments to be done and how.

(b) SHE Organisation arrangements i.e. SHE Committees, SHE Audits, Findings and Corrective Actions

(c) Risk Management i.e. Risk Assessment frequencies, methodology

(d) Education and training i.e. safety induction, site / job specific training arrangements

(e) Emergency Planning

(f) Health and Safety Communication i.e. Toolbox talks, incident recall

(g) Safe working methods and procedures to be implemented i.e. safe work procedures, task observation

(h) Fall Protection Plan i.e. documented plan, training/competency, medical surveillance, rescue plan

(i) Personal protective Equipment and Clothing

(j) Contract Security i.e. site access control and security

(k) SHE Costs

(l) Occupational Health i.e Medical Surveillance, First Aid, Welfare Facilities, Substance Abuse testing, Noise, Vibration, Manual Handling etc

(m) Environmental management

(n) Incident Management i.e. reporting and investigation

(o) Operational Control

(p) Review plan of the SHE Plan and

(q) COVID-19 Requirements

13.4 The Contractor shall submit a final SHE Plan after awarding of the contract which shall be subject to the TRIM Contract Manager/Technical Officer's approval and he may, in consultation with the Contractor, order that additional and/or supplementary practical arrangements and procedures be implemented and maintained by the Contractor or that different working methods or safety equipment be used or safety clothes be issued which, in the TRIM Contract Manager/Technical Officer's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the OHS Act and Regulations.

13.5 The Contractor shall approve the SHE Plan of the subcontractor and further take reasonable steps to ensure that each subcontractor's SHE Plan is implemented and maintained on the site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between them, but at least once every month.

13.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's SHE Plan for the site or which poses a threat to the health and safety of persons.

13.7 The Contractor shall ensure that a copy of the SHE Plan is available on site for inspection by an inspector, TRIM Contract Manager/Technical Officer, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.

14. Hazards Identification and Potential Hazardous Situations

14.1 The Contractor shall ensure a risk assessment is carried out by a competent person, appointed in writing, before commencement of any work and reviewed during the duration of the contract period. The Risk Assessments shall form part of the Health and Safety Plan to be applied on the site and shall include at least the following:

(a) The identification of the risks and hazards (including ergonomic risks) that persons may be exposed to.

(b) The analysis and evaluation of the hazards identified.

(c) A documented plan, including safe work procedures to mitigate, reduce or control the; risks identified; and

(d) A monitoring and review plan.

14.2 Risk assessments shall be conducted by a competent person and such person shall use a documented method to analyse and evaluate identified risk and hazards.

14.3 The Contractor shall consult with the health and safety committee or, if no health and safety committee exists, with a representative group of employees, on the development, monitoring and review of the risk assessment

14.4 The risk assessment shall be reviewed when there are changes that affect the design of the structure that may affect the health, safety and environment on site or after an incident.

14.5 The Contractor shall ensure that all employees are to be informed, instructed and trained regarding any risks, hazard and related SHE procedures by a competent person as outlined in the risk assessment prior to commencement of work and thereafter at predetermined intervals as outlined in the monitoring plan.

14.6 The Contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the risk assessment before any work commences, and thereafter at such intervals as may be determined in the risk assessment.

14.7 The risk assessment shall be available on site for review. Where a risk assessment is not readily available or not communicated to contractor employees, the construction activities shall be stopped until such time the contractor complies.

14.8 The Contractor and the TRIM Contract Manager/Technical Officer shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the contract or any subcontractor and, in particular, of such hazards as may be caused by the design, execution and/or location and any other aspect pertaining to the contract work.

14.9 The Contractor shall be required to analyse his scope of work and define these critical activities. For each activity, a risk assessment shall be required which defines systems and safe work procedures that will be used in order to complete the activity safely.

14.10 Copies of all safe work procedures and proof that employees have been trained on those safe work procedures shall be kept on the SHE file.

14.11 Preliminary risk and hazard identification shall be conducted by the Contractor prior to work commencement on site. Should the Client's Agent, Project Manager, TRIM Contract Manager/Technical Officer or his duly nominated alternative identify hazardous activities performed by the Contractor on the site for which the Contractor has not submitted a risk assessment, the Contractor shall be required to do so before continuing with work.

15. Safety, Health and Environmental (SHE) File

15.1 The Contractor shall prepare a SHE file and submit to TRIM Contract Manager for approval prior to commencement of work on site. The file shall include all documentation required as per the OHS Act and applicable regulations.

15.2 The approval time of the SHE file is at least 5 working days

15.3 The Contractor shall ensure that a copy of both his SHE File as well as any subcontractor's SHE File is kept on site and made available to an inspector of the Department of Labour, the TRIM Contract Manager/Technical Officer, or subcontractor upon request.

15.4 The Contractor shall hand over a consolidated SHE file to the TRIM Contract Manager/Technical Officer upon completion of the Construction Work and shall in addition to documentation mentioned in the OHS Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

16. Occupational Health

16.1 Medical Surveillance Programme

16.1.1 The Contractor shall ensure that all his and subcontractor employees have a valid medical certificate of fitness issued by an Occupational Health Practitioner.

16.1.2 Medical certificate of fitness shall be available and be kept in the SHE files.

16.2 Substance Abuse

16.2.1 All Contractors shall comply with the Transnet Substance Abuse Policy and Regulation 2A of the General Safety Regulations of the OHS Act.

16.2.2 No Contractor may possess, sell, offer to other person, use, store, manufacture, transport, distribute, or transfer drugs or alcohol during work hours, on or off TRIM premises.

16.2.3 TRIM will not tolerate substance abuse or use which put at risk the health and safety of its employees or threatens its services to our stakeholders. It is on this basis that a contractor employee will be considered unfit for work if:

(a) He/she is subjected to alcohol screening and/or alcohol testing and is found to have alcohol in his/her breathe and/or blood.

(b) Refuses to undergo substance screening and/or testing.

(c) He /she produces a positive confirmatory test for any other substances, measured by sample analysis at a registered pathological laboratory and authorised by a medical practitioner; and/or

(d) Through observation by security personnel or TRIM Contract Manager, it is evident that the contractor's physical, emotional, mental or behavioural state reflects that they are intoxicated or under the influence.

16.2.4 Any transgression of this policy will constitute a breach of the relevant contract and may result in the termination of services/contract.

16.2.5 Any contractor employee using medication that has a narcotic effect shall declare before work to his / her supervisor.

16.3 Occupational Hygiene

16.3.1 The Contractor shall conduct Health Risk Assessments of all the Occupational Hygiene / Environmental stressors (e.g. noise, dust, illumination, HCS, heat & cold stressors, ergonomics, etc.) present in the area where they operate to determine if there is any possible worker exposure. Records of all these assessments should be documented and kept up to date.

16.3.2 The Contractor shall monitor the extent to which their employees are exposed to the occupational hygiene stressors. These assessments shall be conducted by an Approved Inspection Authority as listed on the Department of Labour database. The findings from these assessments should be kept on the SHE files, communicated to all affected parties and be reported to relevant authorities.

16.4 First Aid requirements

16.4.1 All Contractors shall ensure that their employees receive prompt first aid treatment in case of injury or emergency. The Contractor shall have the necessary equipment and/or facility on site for treatment of injured persons.

16.4.2 Contractor shall ensure that the first aid box / boxes are available and accessible. More first aid boxes shall be provided if the risks, distance between work teams, or the working environment requires it.

16.4.3 Taking into account the type of injuries that are likely to occur on site, the nature of activities performed and the number of employees on site, the Contractor shall ensure that the first aid box contain suitable first aid equipment which includes at least the minimum contents as listed on Annexure 1 of General Safety Regulation (GSR).

16.4.4 The Contractor shall ensure that trained / certificated first-aid personnel are appointed and be available on site at all times. The ratio of first aiders to employees shall be 1:50.

16.5 Asbestos Control

16.5.1 The Contractor shall inform the TRIM Project Manager or TRIM Contract Manager if during construction work asbestos or suspected asbestos containing material is found. Only Asbestos Approved Contractor can work on asbestos containing material.

16.6 Welfare Facilities

16.6.1 The Contractor shall ensure that suitable, clean and hygienic welfare facilities are provided to its employees and subcontractors. Where such welfare facilities are provided to them by TRIM for the use of their employees and subcontractors, the Contractor shall ensure that they are kept in a clean, hygienic, safe, whole and leak-free condition, and in a good state of repair.

16.7 Vibration

16.7.1 Contractors shall put measures to reduce the risks associated with hand–arm vibrations, avoid, whenever possible, the need for vibration equipment.

16.7.2 Contractor shall develop a good maintenance regime for tools and machinery. This may involve ensuring that tools are regularly sharpened, worn components are replaced or engines are regularly tuned and adjusted.

16.7.3 The Contractor shall introduce a work pattern that reduces the time exposure to vibrations.

16.7.4 The Contractor shall issue employees with gloves and warm clothing. There is a debate as to whether anti-vibration gloves are really effective, but it is agreed that warm clothing helps with blood circulation which reduces the risk of vibration white finger. Care shall be taken so that the tool does not cool the hand of the operator.

16.8 Manual Handling

16.8.1 Contractor shall reduce risk of injury due to manual handling by using mechanical assistance involving the use of mechanical aids to assist the manual handling operation. Mechanical aids such as hand-powered hydraulic hoists, specially adapted trolleys, hoist for lifting patients and roller conveyors can be used.

16.8.2 Contractor shall ensure all employees involved in manual handling are trained in good lifting techniques.

16.9 Weather precautions

16.9.1 In the event of adverse weather (high winds, flooding, storm surge, lightning etc) or other conditions, the Contractor shall institute precautionary measures to protect employees on site.

16.9.2 The Contractor shall take steps to prevent heat stroke, dehydration and exhaustion of employees as a result of exposure to excessive heat on site. Such steps may include employees taking regular breaks, consuming enough water, provision of sun brims for their hard hats and sunscreen to protect them against sun burn.

16.9.3 The Contractor shall take steps to prevent hypothermia or dangerous overcooling of the body as a result of exposure to cold temperatures.

17 Incidents/Occurrences

17.1 All incidents referred to in Regulation 9 of General Administration Regulations of the OHS Act involving the contractor and his subcontractor on TRIM premises, shall be reported to the TRIM Contract Manager and Department of Labour as prescribed by the OHS Act.

17.2 TRIM shall be forwarded with a copy of a report of any investigation, formal inquiry conducted in terms of Section 31 and 32 of the Act into any incident involving the contractor, his subcontractor, any person or machinery under his control on TRIM premises.

17.3 TRIM Contract Manager shall be informed of the above incidents/occurrences before the end of shift when the incident/occurrence occurred.

17.4 The Contractor shall make available its employees to attend as witnesses when required so by TRIM during an investigation into any incident where TRIM believes the said contractor employees were witnesses or may assist in the investigation.

17.5 The contractor shall make available to TRIM any documents required to assist in their investigation.

18. SHE Cost

18.1 The Contractor shall ensure that it has made adequate provision for the cost of health and safety measures in the tender offer.

18.2 The Contractor shall ensure that its subcontractors have made adequate provision for the cost of health and safety measures in the tender offer.

19. Personal Protective Equipment (PPE)

19.1 The contractor shall ensure that all employees are provided with appropriate prescribed Personal Protective Equipment (PPE) free of charge (according to General Safety Regulations (2), suitable for the type of activities that the employees will perform.

19.2 Such PPE shall be approved by credible institution such as SABS, EN, or AN.

19.3 The contractor shall manage the issuing of PPE and ensure that PPE is used at all times. Employees shall be trained in the proper use of PPE.

20. Emergency Evacuation Plan and Procedure

20.1 The Contractor shall establish and implement an emergency evacuation plan to ensure that in the event of fire, explosion structural collapse etc. all staff is able to evacuate the area to a demarcated area for the purpose.

20.2 The area so selected shall be demarcated and the relevant "Assembly Point" sign displayed where applicable or use TRIM nearest assembly point.

20.3 An Emergency Evacuation Procedure shall be drawn up; all staff members and contractors shall be given awareness training and participate in regular evacuation drills.

20.4 The Contractor and its employees shall collaborate and adhere to TRIM evacuation drills and requirements.

21. Access Control and Security

21.1 The Contractor shall, before commencing any work, obtain from the TRIM Contract Manager/Technical Officer a Site Access Certificate signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.

21.2 No Site Access Certificate will be granted to the Contractor who fails to comply with TRIM minimum SHE requirements, with the SHE File not approved and without the SHE induction been concluded.

21.3 The contractor shall assess the security risks and implement appropriate measures. All contractors are to strictly adhere to all security requirements on the premises.

21.4 The Contractor in collaboration with the TRIM representative will ensure that proper access control is in place and functional at all times onto and out of the site. A form of access control will be issued to contractor employees who have been inducted and submitted copies of ID documents or work permits (where required).

21.5 Access Permits should be carried by a contract employee at all time when on site. Access Permits shall be produced at the point of entry / gate.

21.6 Contractors shall ascertain from TRIM Contract Manager/Technical Officer the correct route along with their employees may proceed when coming on or going off shift and direct their employees accordingly.

22. Management of Subcontractors

22.1 The Contractor is directly responsible for the actions of his contractors/sub-contractors.

22.2 The Contractor will also be responsible for initiating any remedial action (recovery plan) that may be necessary to ensure that the contractor complies with all requirements.

22.3 The Contractor shall provide any contractor who is making a bid or appointed to perform construction work, with the relevant sections of the documented SHE specification, who would in turn provide a SHE plan for approval.

22.4 The Contractor shall carry out inspection/audits on the contractor/subcontractor to ensure that their SHE plan is being implemented and maintained and submit audit report to TRIM Representative.

22.5 The Contractor shall stop any contractor/subcontractor from executing construction work which poses a threat to the safety and health of persons or the environment.

22.6 The Contractor shall ensure that the sub-contractors appointed have the necessary competencies and resources to perform the work safely.

22.7 The Contractor will be required to submit 37(2) mandatory agreement between the Contractor and subcontractor to the TRIM Contract Manager

23. Environmental Management

23.1 The Contractor shall identify, document and comply with all pertinent Environmental laws and associated Regulations, approvals, licenses and permits which are applicable to the Services and activities undertaken.

23.2 Before commencement with any of the services to be rendered to TRIM, the Contractor shall make available all personnel who will be working on the specified contract to be given environmental induction training. All Contractor employees arriving on the site shall attend such induction.

23.3 The Contractor shall adhere to all instructions issued by Contract Manager or his /her delegated person in promotion of environmental management and legal compliance.

23.4 The Contractor shall determine the correct positioning of topsoil stockpiling to avoid massive disturbance and prepare the topsoil for reuse during landscaping.

23.5 Concrete shall not be mixed directly on the ground or any other permeable surface. Should concrete batching activities occur, these should be located in the designated area on site with low environmental sensitivity levels.

23.6 All excess concrete shall be removed from site on completion of plastering or concrete pouring and disposed of in an environmentally acceptable manner.

23.7 The Contractor shall ensure that his or her employees are aware of the procedures to be followed when dealing with spills and leaks, which shall include notifying the relevant authorities and TRIM as required in terms of National Environmental Management Act (NEMA), 1998 and National Water Act (NWA), 1998. The Contractor shall ensure that all necessary material and equipment required for use during clean – up/rehabilitation of spills and leaks are available on site at all times. Treatment, remediation and/or rehabilitation of contaminated areas shall be undertaken to the reasonable satisfaction of the TRIM Environmental Control Officer or relevant Environmental Specialist.

23.8 Contractor shall be solely responsible for the control of dust generated from his or her activities. Excavation, handling and transport of erodable material shall be avoided under aggressive wind conditions or when a visible dust plume is present. If dust damping measures are deemed inadequate, working shall cease until the wind speed drops to an acceptable level.

23.9 Construction activities generating output levels of 85 db (A) or more shall be confined to the hours 08h00 to 17h00 Mondays to Fridays (close to residential areas).

23.10 No on-site burying or dumping of waste material shall occur. Waste shall be collected by a licensed waste transporting contractor and disposed of at a licensed disposal site. Disposal certificate shall be made available to TRIM on request.

23.11 Waste bins shall be provided in sufficient number and capacity to store solid waste produced on a daily basis. These bins shall be kept closed and emptied regularly.

23.12 A designated re-fuelling area (s) shall be provided. The re-fuelling area shall be protected from hydrocarbon spillage to the reasonable satisfaction of the TRIM Environmental Control Officer or Relevant Environmental Specialist. As a minimum requirement, re-fuelling and workshop areas shall have a bunded floor surface and storm water collection mechanism. Refuelling shall always be accompanied by the use of drip trays.

23.13 The Contractor shall notify the Contract Manager immediately of any pollution incident. An incident record system shall be maintained on site for inspection by TRIM and relevant authorities.

23.14 All vehicles and equipment's shall be kept in good working condition. All leaking equipment's shall be repaired immediately or removed from site. All vehicles and equipment shall be maintained and not emit excessive noise.

23.15 In case of major hydrocarbon spill or leakage as a result of equipment failure, Contract Manager shall be made aware of such event and the affected area shall be fenced off and be cleaned immediately to the reasonable satisfaction of the TRIM Environmental Control Officer to prevent contamination of soil and both surface and groundwater.

23.16 The Contractor shall ensure that no spillage occurs when toilets are being cleaned or emptied and that the contents are removed from site by a licensed service provider.

23.17 The use of borrow pits for the construction of access roads shall comply with the provisions of Minerals and Petroleum Resources Development Act of 2004 as amended and should not be located inside the border of any protected area (e.g. Nature Reserve).

23.18 All disturbed areas shall be rehabilitated to the reasonable satisfaction of TRIM Environmental Control Officer or Relevant Environmental Specialist.

23.19 Transportation, handling and storage of all substances classified as hazardous shall comply with the provisions of the Hazardous Substances Act, 15 of 1973, relevant Regulations and SANS Codes.

23.20 Archaeological remains, artificial features and structures older than 60 years are protected by the Natural Heritage Resources Act, 25 of 1999. Should any archaeological artefact be exposed during construction or any contract work, such work shall be stopped immediately. The TRIM Environmental Control Officer shall be called in for inspection and to recommend the way-forward. Under no circumstances may any artefacts be destroyed or removed from site.

23.21 The extraction of water for construction purposes shall at all times comply with licensing requirements of Department of Water Affairs, where applicable. Extraction of water from a stream or a river requires approval.

23.22 Blasting work that may be required on site shall be carried out entirely within the provisions of the Explosives Act, 26 of 1956 and other relevant engineering and safety standards.

23.23 Office and camp sites shall be established, as far as is practicable, outside the flood plain, above the 1:50 flood level mark within the boundaries of the construction area.

23.24 No camp or office site shall be located closer than 100 metres from a stream, river, spring, dam or pan.

23.25 The area chosen for these purposes shall be the minimum reasonably required and which will involve the least disturbance to vegetation.

23.26 Camps and site offices shall be fenced (where necessary) in consultation with the landowner.

23.27 The Project Manager or TRIM Contract Manager may, at his or her discretion stop any work, activity or process not in accordance with Environmental laws and associated Regulations, approvals, licenses and permits.

23.28 The contractor shall preserve wildlife in terms of the NEMA.

24. Operational Safety

24.1 National Railway Safety Regulator Act / Railway Safety

24.1.2 The Contractor shall ensure that its equipment, machinery and employees when on TRIM premises complies fully with all applicable railway safety requirements and/or regulations of the railway safety act, 2024 (act no. 30 of 2024) and the relevant SANS Codes of Practice.

24.1.2 The Contractor when engaging subcontractor shall review the capability of the proposed contractor to comply with specified railway safety requirements and/or regulations.

24.1.3 The Contractor and/or his subcontractors shall grant TRIM access, during the term of the contract, to review any railway safety related activities, including the coordination of such activities across all parts of the organisation.

24.1.4 The Contractor shall ensure that where applicable, such work is performed by person who has the necessary competencies as required in terms of any applicable railway safety standard or code of practice

24.1.5 The Contractor shall ensure that all his employees are protected from the risk of being hit by moving trains.

24.1.6 The Contractor shall ensure that on track machines are only operated with the Transnet Track inspector/Track master in charge of on-track machine present on the machine. Transnet Track inspector/Track master in charge of on-track machine shall have passed the appropriate road knowledge, theoretical and practical examinations and shall be licenced competent.

24.2 Special Permits

24.2.1 Where special work permits are required before work may be carried out such as for e.g. hot work (welding, cutting etc.), isolation, and occupations, the Contractor shall apply to the TRIM Contract Manager/Technical Officer or the relevant authority for such permits to be issued. The Contractor shall strictly comply with the conditions and requirements pertaining to the issue of such work permits.

24.3 Vehicle Safety

With respect to vehicles, vehicles and mobile plants the Contractor shall ensure that:

24.3.1 They are of an acceptable design and maintained in a good working order and are used in accordance with their design and the intention for which they were designed

24.3.2 Are operated by a person who-has received appropriate training, is certified competent and in possession of proof of competency and is authorised in writing to operate such vehicle and mobile plant;

24.3.3 Are operated by a person who has a medical certificate of fitness to operate those vehicle and mobile plant, issued by an occupational health practitioner;

24.3.4 Vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried. No employees will be allowed to be transported at the back of LDV's / bakkies unless it is provided with a seat and safety belt and further that the risk assessment has indicated it to be a low risk.

24.3.5 Vehicles are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn.

24.3.6 Vehicle shall be equipped with an acoustic warning device which can be activated by the operator and an automatic acoustic reversing alarm

24.3.7 Vehicles shall be inspected by the authorised operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

24.3.8 No person rides or is required or permitted to ride on a construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose.

24.3.9 All vehicles or mobile plant when not in use, have buckets, booms or similar appendages, fully lowered or blocked, controls in a neutral position, motors stopped, wheels chocked, brakes set and ignition secured.

24.3.10 Whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation

24.3.11 Tools, material and equipment are secured and separated by means of a physical barrier in order to prevent movement when transported in the same compartment with employees.

24.3.12 Where applicable, also in collaboration with the TRIM representative and other appropriate personnel develop a traffic management plan for the site to ensure the safe movement of all construction related mobile plant where applicable

24.3.13 This plan is to be reviewed as and when required to ensure its applicability where applicable.

24.3.14 Those working or operating on public roads comply with the requirements of the National Road Traffic Act, 1996.

24.4 Housekeeping and general safeguarding on sites

24.4.1 Contractor shall ensure that suitable housekeeping is continuously implemented on each work site

24.4.2 The Contractor shall ensure proper storage of materials and equipment and the removal of scrap, waste and debris at appropriate intervals.

24.4.3 The Contractor shall ensure that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways

24.4.4 The Contractor shall ensure that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals.

24.5 Information, instruction and training

24.5.1 The contractor who undertakes work which is liable to expose an employee to an HCA shall, before any employee is exposed or may be exposed, after consultation with the health and safety committee established for that section of the workplace, provide that employee with suitable and sufficient information, instruction and training, as well as thereafter inform, instruct and train that employee at intervals as may be recommended by that health and safety committee.

24.5.2 The information, instruction and training shall include in regard to the Hazardous Chemical Agent's
(i) the chemical substance regulations that are in place that govern all aspects of HCA use at the workplace.
(ii) the legislated OELs that are in place; and
(iii) the duties of persons who are likely to be exposed to an HCA,

24.5.3 Details of the HCAs to which the employee is likely to be exposed at the workplace, including
(i) the names of the HCAs and where they may be found in the workplace.
(ii) information on the potential harmfulness of the HCAs at the workplace; and
(iii) significant findings of the HCA exposure assessment,

24.5.4 The information that each part of an SDS provides.
The information that each part of the label on containers provides and why the information is being provided.

24.5.5 The work practices and procedures that shall be followed for the use, handling, storage, transportation, spillage and disposal of an HCA, in emergency situations, as well as for good housekeeping and personal hygiene.

24.5.6 The necessity of personal air sampling, biological monitoring and medical surveillance
the need for engineering controls and how to use and maintain them;
(i) the need for personal protective equipment, including respiratory protective equipment, and its use and maintenance.

24.5.7 The precautions that shall be taken by an employee to protect themselves against health risks associated with exposure, including wearing and using protective clothing and respiratory protective equipment; and

24.5.8 The necessity, correct use, maintenance and potential of safety equipment, facilities and engineering control measures provided.

24.5.9 The contractor shall give written instructions of the procedures to be followed in the event of spillages, leakages or any similar emergency situations to the drivers of vehicles transporting an HCA.

24.5.10 In terms of section 37(2) of the Act, the contractor and mandatary shall agree in writing to the arrangements and procedures between them to ensure compliance by the mandatary with information, instruction and training requirements.

24.6 Stacking and Storage

24.6.1 The Contractor shall ensure that a competent person is appointed in writing with the duty of supervising all stacking and storage.

24.6.2 Adequate storage areas are provided, demarcated as storage areas and are kept neat and under control.

24.7 Fire Precautions and Fire Safety

24.7.1 The Contractor shall ensure that all appropriate measures are taken to avoid the risk of fire. The Contractor shall comply to the fire precautions as stipulated in the Environmental Regulations for Workplaces, 1987 and regulation 29 of the Construction Regulations, 2014

24.7.2 Sufficient and suitable storage is provided for flammable liquids, solids and gases.

24.7.3 Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials

24.7.4 The Contractor shall ensure that the work areas are clear, at all times, of any material, which could fuel a fire and that ccombustible materials do not accumulate, oily rags, waste and other substances liable to ignite are without delay removed to a safe place.

24.7.5 A thorough inspection is made of the work site at the end of any working period to ensure that no material is left at the work site or any situation left in such a manner that a fire or accident could result (all machines to be turned off at main switches, and cylinders to be closed and hoses deflated).

24.7.6 Suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned and that such equipment is maintained in a good working order.

24.7.7 The fire equipment is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof

24.7.8 Sufficient number of employees are trained in the use of fire extinguishing equipment and familiarise themselves with locations of fire fighting equipment in the work site.

24.7.9 There is an effective evacuation plan providing for all persons to be evacuated speedily without panic, accounted for and a siren is installed and sounded in the event of a fire.

24.7.10 Where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire and the means of escape is kept clear at all times.

24.7.11 The Contractor shall ensure that fire fighting equipment are not to be used for any purpose other than their intended use.

24.8 Demarcation of the site

24.8.1 The Contractor shall ensure that its activities are conducted within a limited area to facilitate control and to minimize the impact on the existing natural environment and other TRIM activities.

24.8.2 The Contractor shall demarcate the boundaries of the site in order to restrict activities to the site.

24.8.3 The method of demarcation and the location of the demarcated area shall be determined by the Contractor and approved by the TRIM Contract Manager prior to any work being undertaken. The Contractor shall ensure that all his plant, labour and materials remain within the boundaries of the site.

24.8.4 Failure to do so may result in the Contractor being required to fence off the boundaries of the site at his own expense to the satisfaction of the TRIM. The contractor is responsible for the safeguarding of his/her own equipment and material while on site.

24.9 Fall Protection Plan

24.9.1 In the event of the risk and hazard identification, as required in terms of clause 14 of this Specification, revealing risks relating to working from a fall risk position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan.

24.9.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of the contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.

24.9.3 The fall protection plan shall include: -

(a) a risk assessment of all work carried out from a fall risk position.

(b) the procedures and methods to address all the identified risks per location.

(c) the evaluation of the employees physical and psychological fitness necessary to work at fall risk positions.

(d) the training of employees working from fall risk positions.

(e) rescue plan; and

(f) the procedure addressing the inspection, testing and maintenance of all fall protection equipment

24.10 SHE Signage (Symbolic Safety Signs) on plant and in buildings

24.10.1 The Contractor's employees shall comply with all SHE signage posted at various locations of TRIM sites.

24.10.2 The Contractor shall after occupation of the construction site ensure that appropriate, SHE signs (Symbolic Safety Signs) are displayed on site

24.11 General Machinery, Tools and Equipment

24.11.1 The Contractor shall ensure that all machinery, tools and equipment are identified, numbered or tagged, listed on an inventory list.

24.11.2 The Contractor shall ensure that all machinery, tools and equipment are safe to be used and is maintained in a good condition.

24.11.3 The Contractor shall ensure that all machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded in such a manner that persons cannot gain inadvertent access to the moving parts.

24.11.4 All machinery, tools and equipment to be regularly inspected at least monthly or as required by legislation and risk assessments. Records of such inspections shall be kept on the SHE files.

24.11.5 Where applicable machinery, tools and equipment shall have the necessary approved test or calibration documentation.

24.11.6 The Contractor shall ensure that all machinery, tools and equipment are operated by persons who have been trained to operate such machinery, tools or equipment.

24.12 Portable Electrical Tools and Explosive Power Tools

24.12.1 The Contractor shall ensure that use and storage of all explosive power tools and portable electrical tools comply with all applicable legislation.

24.12.2 The Contractor shall ensure that only trained employees are authorised to use portable electrical tools and explosive power tools

24.12.3 The Contractor shall ensure that all portable electrical tools and explosive power tools are kept in a safe working condition.

24.12.4 All portable electrical tools and explosive power tools are inspected monthly by a competent person and daily before use by the operator of such tool. Records of such inspections shall be kept in the safety file.

24.12.5 Users / Operators of electrical power tools and explosive power tools should be issued with suitable protective equipment

24.13 Lifting Machine, Lifting Tackle and Suspended Loads

24.13.1 The Contractor shall ensure that lifting machine and tackle comply with Driven Machinery Regulation 18 and all other applicable legislative requirements and standards.

24.13.2 The Contractor shall ensure that lifting machine operators shall be competent to operate a lifting machine. They shall be in possession of a valid permit. The training should have been done according to the Code of Practice by a provider registered by the Department of Labour.

24.13.3 A lock out system should be implemented to ensure that only an operator that is competent can draw lifting machines and forklifts.

24.13.4 The Contractor shall ensure that before using any lifting machines or tackle the operator inspect it. Records of such inspections and examinations shall be kept on the safety file.

24.13.5 All lifting machines shall be examined and subjected to a performance test by an accredited person/company at intervals not exceeding 12 months.

24.13.6 All lifting tackle should be recorded on a register and should be examined by an accredited person/company at intervals not exceeding 3 months.

24.13.7 All hooks shall be fitted with a safety latch/catch.

24.13.8 All lifting tackle should be conspicuously and clearly marked with identification particulars and the maximum mass load which it is designed for.

24.13.9 No person shall be moved or supported by means of a lifting machine unless such a machine is fitted with a cradle approved by an inspector.

24.13.10 Rigging of loads to be done in accordance with acceptable safe work practices

24.13.11 Contractors and their employees shall keep out from under suspended loads, including excavators, and between a load and a solid object where they might be crushed if the load should swing or fall. They shall not pass or work under the boom or any crane or excavator.

24.13.12 Contractors and their employees shall ensure that crane loads are not carried over the heads of any workmen.

24.13.13 The Contractor shall ensure proper supervision in terms of guiding the load including the use of guide ropes to prevent loads from swinging and a trained person to direct lifting operations and checking the lifting tackle and attachments daily.

24.14 Hand Tools and Pneumatic Tools

24.14.1 All hand tools (hammers, chisels, spanners, etc) shall be recorded on a register and inspected by a competent person on a monthly basis as well as by users prior to use.

24.14.2 All pneumatic tools should be numbered, recorded and inspected at least monthly as well as by users prior to use. And the revolutions per minutes measured in accordance with the manufacturer specifications

24.14.3 Tools with sharp points in toolboxes shall be protected with a cover.

24.14.4 All files and similar tools shall be fitted with handles.

24.14.5 The Contractor shall have a policy on private and makeshift tools on site.

24.14.6 No pneumatic tool shall be operated by using a compressed gas cylinder. Pneumatic equipment shall only draw supply from mobile air compressors or from compressed air lines installed within the premises.

24.15 General Rules of Conduct

24.15.1 All persons are required to conform to the following rules of conduct while on the site.

24.15.2 The following acts are prohibited:

- Engaging in practical jokes, horseplay, scuffling, wrestling, fighting, or gambling.
- Assault, intimidation, or abuse of any person.
- Insubordination towards any supervisor or manager.
- Refusing to carry out a reasonable and lawful instruction concerning health and safety.
- Entry into any restricted area (including barricaded areas), unless authorised to do so by the responsible person.

- Unauthorised use / operation of any equipment or machinery.
- Negligently, carelessly or wilfully causing damage to any property.
- Destroying or tampering with safety devices, signs, or signals.
- The use of water from fire hydrants or hose reels for any purpose other than extinguishing a fire.
- The wilful and unnecessary discharging of fire extinguishers.
- Refusing to give evidence or deliberately making false statements during incident investigations.
- Bringing alcohol, drugs, or any other intoxicating substance onto site.
- Bringing a firearm, ammunition, or any other offensive weapon onto site.
- Bringing animals onto site.
- Running, except in an emergency.
- The use of an iPod (or similar) whilst working on site.
- Sleeping on the job.
- Building fires on site, unless in a suitably constructed barbequing facility; and
- Pouring / pumping / flushing any substance (chemical / hydrocarbon / wastewater) into a storm water drain, onto bare soil, or into any area where the substance is not effectively contained.
- Walking, sitting or sleeping on the rail
- Touching of any loose lying electric wires
- Coming into close proximity to live OHTE (maintain clearance of 3 metres)

24.15.3 Any of the above actions may result in the temporary or permanent removal of the offending person(s) from site, as well as possible prosecution. The decision of the Transnet Contract Manager shall be final and binding in respect of any dispute that may arise from the interpretation of these requirements.

24.16 Work in Confined Space

24.16.1 The Contractor shall ensure that a confined space is only entered by an employee or any other person only after the air therein has been tested and evaluated by a person who is competent to pronounce on the safety thereof, and who has certified in writing that the confined space is safe and will remain safe while any person is in the confined space, taking into account the nature and duration of the work to be performed therein.

24.16.2 The Contractor shall take steps to ensure that any confined space in which there exist or is likely to exist a hazardous gas, vapour, dust or fumes, or which has or likely to have, an oxygen content of less than 20 percent by volume, is entered by an employee or other person only when:

(a) the confined space is purged and ventilated to provide a safe atmosphere therein and measures necessary to maintain a safe atmosphere therein have been taken;
(b) the confined space is isolated from all pipes, ducts and other communicating openings by means of effective blanking other than the shutting or locking of a value or a cock, or, if this is not practicable, only when all valves and cocks which are a potential source of danger have been locked and securely fastened by means of chains and padlocks.

24.16.3 The Contractor shall ensure that the provisions of General Safety Regulation 5 are complied with regard to work on confined space

24.16.4 The Contractor shall take into consideration that a tunnel is defined as a confined space in terms of the General Safety Regulations and shall ensure compliance to the above when working in tunnels.

24.17 Electrical Equipment

The Contractor shall ensure that:

24.17.1 Implementation and compliance with Electrical Installation Regulations, Electrical Machinery Regulations and regulation 24 of the Construction Regulations and OH&S Act.

24.17.2 All electrical installations, machinery and electrical work is performed in compliance with TRIM Electrical Safety Instructions.

24.17.3 Connections are not made to any power supply without the prior written approval of the TRIM Contract Manager.

24.17.4 All electrical machines and appliances provided by the Contractor for his own use on the Site are in a serviceable condition

24.17.5 Power tools used on the Site are protected by residual current devices approved by TRIM Contract Manager and are double insulated.

24.17.6 All extension cords, portable tools and electrical plant supplied at a voltage above 32 volts are inspected, tested and tagged by a Licensed Electrician at regular monthly intervals. Details of inspections and tests are kept in Logbooks available for inspection by the TRIM Contract Manager or any other authorised Officer of TRIM.

24.17.7 All electrical installations are inspected by the TRIM Contract Manager (or his nominee) to ensure that the installation complies with the Statutory Regulations applicable to the site and TRIM Electrical Safety Instructions. Any installations deemed unsatisfactory by the TRIM Contract Manager should be removed by the Contractor at his expense.

24.17.8 Portable lights have adequate stability and are fitted with a mechanical guard to protect the lamp. Temporary festoon lighting is of the 'double insulated' type and is supported at least 2.5m above the floor, if possible. Hand lamps are of the 'all insulated' type.

24.17.9 All temporary light fittings are supplied from more than one final sub-circuit, with the supply from a residual current device, extra low voltage source or an isolating transformer.

24.17.10 The Contractor shall obtain approval from the TRIM Contract Manager before any of his employees or Sub-contractors commence work within three (3) metres of conductor rails or high tension wires, or where there is a possibility of equipment coming close to and/or touching a power source and shall provide suitable protective insulating barriers. For the erection of scaffolding, the distance is five (5) metres.

24.17.11 Only authorised persons may enter Electrical Contactor Houses, Motor Rooms, Switch Rooms, Control Rooms or Cable Ducts. Should the Contractor require entering such places to carry out work, he shall first obtain permission from the TRIM Contract Manager and obtain a valid Permit to Work.

24.17.12 The Contractor's employees required to enter such electrical spaces "authorised persons", with the names entered in the TRIM Authorised Persons Register, after receiving approval from the TRIM Electrical Officer, or they are accompanied by an authorised person who shall supervise the placement of Danger Tags and Out-of-Service Tags, as well as Electrical Isolation Permit.

24.17.13 Electrical equipment supply cabling distribution boards, fixed lighting and portable appliances, extension leads, welding machines, compressors, pumps and hand portable tools are inspected on a monthly basis and also by the user daily before use.

24.17.14 Such monthly inspection(s) are to be performed by an appropriately qualified Electrician.

24.17.15 Contractors working on, over, under, or adjacent to railway lines and near high voltage equipment shall comply with the TRIM E7/1 Specification for Works On, Over, Under or Adjacent to Railway Lines and Near High Voltage Equipment.

24.17.16 No person may do electrical installation work as an electrical contractor unless that person has been registered as an electrical contractor in terms of the Electrical Installation Regulations.

24.17.17 No person shall authorize, design, install or permit or require the installation of an electrical installation, other than in accordance with a health and safety standard provided that the components within an electrical installation shall comply with the standards and proof of compliance shall be identifiable on the components or certification shall be available from the supplier or manufacturer of the components.

24.17.18 Contractor shall provide further that items of an electrical installation not covered by such incorporated safety standard, and the conductors between the point of supply and the point of control, shall be installed in accordance with the by-laws or regulations of the supplier concerned.

24.17.19 A registered person shall exercise general control over all electrical installation work being carried out, and no person shall allow such work without such control: Provided that where the voltage exceeds 1kV, the installation shall be designed and supervised by a person deemed competent

24.17.20 No supplier shall restrict the application of a health and safety standard when an electrical installation is installed, except where the distribution system of the supplier may be adversely affected by the application thereof.

25. Confidentiality

25.1 The Contractor shall, at all times, consider all data or information given to him or that is required in connection with the work of the Company, as confidential and not makes unauthorized use of it.

25.2 He/she shall ensure that such data or information is not given to any non-employee of the contractor without written consent of the TRIM Contract Manager.

25.3 The Contractor shall be aware of the confidentiality of the mentioned information and is compelled to treat it accordingly.

25.4 The contractor shall provide adequate physical protection for any confidential documents, etc, which were obtained from Transnet in connection with the contract work as well as any copies made thereof. If any documents or sketches are lost, the TRIM Contract Manager shall be notified immediately.

ANNEXURE 1

CONTRACTOR MONTHLY SHE REPORT

For Month/Year		Name of Contractor	
Name of Contract			
Contract Number	Date of Commencement	Date of Completion	

Number of employees	Man-hours worked this Month	Cumulative (Contract duration man-hours)	Man-hours Since last Lost Time Incident (LTI)	DIFR

1. Details of SHE Incidents

Incident	This Month	Cumulative (Contract duration)	Short description of major/ significant incidents and preventative action taken
Number of fatalities			
Number of disabling incidents			
Number of Medical Treatment Cases			
Number of first aid Cases			
Number of near miss incidents			
Motor vehicle incidents			
Number of environmental incidents			
Positive substance abuse incidents			
Substandard Act/ Conditions observed			
Legal violations observed			

2. Details of SHE Meetings

Date	No of participants	Major SHE Concerns	Action taken

3. Details of Audits/Inspections

Date	Area / Facility	Findings/Recommendations	Action taken

5. Details of any SHE Promotional activities for the month

Date	Activity	Remarks

6. Safety Communication

Month	Number of Safety talks held	Remarks

Attach separate sheets for further or other details

…….. …… ……

Name of Contractor Representative Signature Date

T2.2-06d- Mandatary Agreement

OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (AS AMENDED)

AGREEMENT WITH MANDATORY
In terms of Section 37(1) & (2)

WRITTEN AGREEMENT ENTERED INTO AND BETWEEN

Transnet SOC Ltd
(Hereinafter referred to as the Employer)

AND

(Hereinafter referred to as Mandatory (Principal Contractor)

Compensation Fund Number :

Project Name :

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PREAMBLE

WHEREAS section 37(1) & (2) of the Occupational Health and Safety Act No 85 of 1993 ("the Act") requires that parties have an agreement in writing to ensure compliance by a mandatory in line with the provisions of the Act.

AND WHEREAS Transnet SOC Ltd requires the services of the Contractors to execute certain projects within its workshops.

AND WHEREAS TRANSNET SOC LTD can be better served by Contractors who have the infrastructure, specialist employees and expertise to execute such projects at the highest level of efficiency on short notice.

NOW THEREFORE the parties agree as follows;

1. DEFINITIONS

For the purpose of this agreement, unless the context indicates otherwise, the following definitions are set out for the terms indicated:

1.1 "**Act**" means the Occupational Health and Safety Act No 85 of 1993;

1.2 "**Agreement**" means this Mandatary agreement;

1.3 **"Contractor "** means the Mandatory;

1.4 **"COID Act"** means the Compensation for Occupational Injuries and Diseases Act No 130 of 1993.

1.5 "**Effective Date**" means the date of signature of this Agreement by the last party signing hereto;

1.6 "**Employer**" refers to TRANSNET SOC LTD;

1.7 "**Mandatary**" means an agent, Contractor or sub-contractor for work, but without derogating from the status in his own right as an employer or user;

1.8 "**Parties**" means TRANSNET SOC LTD and the Contractor, and "**Party**" shall mean either one of them, as the context indicates;

1.9 **"Principal Contract"** means the appointed contractor whereby such contractor has to provide goods and or services to TRANSNET SOC LTD.

1.10 "**Regulations**" means regulations promulgated in terms of the relevant legislation.

1.11 "**Section**" means the relevant section of the Occupational Health and Safety Act No 85 of 1993

1.12 "**Services**" means the services to be provided by the Contractor to TRANSNET SOC LTD.

1.13 "**TRANSNET SOC LTD**" means Transnet Group and all its operating divisions and Specialist units with (Registration No. **1990/000900/06),** a public company incorporated in accordance with the company laws of the Republic of South Africa;

2. INTERPRETATION

2.1 Clause headings in this Agreement are included for ease of reference only and do not form part of this Agreement for the purposes of interpretation or for any other purpose. No provision shall be construed against or interpreted to the disadvantage of either Party hereto by reason of such Party having or being deemed to have structured or drafted such provision.

2.2 Any term, word or phrase used in this Agreement, other than those defined under the clause heading "Definitions" shall be given its plain English meaning, and those terms, words, acronyms, and phrases used in this Agreement will be interpreted in accordance with the generally accepted meanings accorded thereto.

2.3 A reference to the singular incorporates a reference to the plural and vice versa.

2.4 A reference to natural persons incorporates a reference to legal persons and vice versa.

2.5 A reference to a particular gender incorporates a reference to the other gender.

3. REPORTING

3.1 The Mandatary and/or his designated person appointed in terms of Section 16(2) of the Occupational Health and Safety Act 85 of 1993 ("the OHS Act") shall report to the Risk Manager and/or a Project Manager and/or a representative designated by the Employer prior to commencing the work at the premises of the Employer.

4. WARRANTY OF COMPLIANCE

4.1 In terms of this Agreement the Mandatary warrants that he agrees to any of the arrangements and procedures as prescribed by the Employer and as provided for in terms of Section 37(2) of the OHS Act for the purposes of compliance with the OHS Act.

4.2 The Mandatary further warrants that he and/or his employees undertake to maintain such compliance with the OHS Act. Without derogating from the generality of the above, nor from the provisions of the said Agreement, the Mandatary shall ensure that the clauses as hereunder described are at all times adhered to by himself and his employees.

4.3 The Mandatary hereby undertakes to ensure that the health and safety of any other person on the premises is not endangered by the conduct of his activities and that of his employees.

5. APPOINTMENTS AND TRAINING

5.1 The Mandatary shall appoint competent persons as per Section 16(2) of the OHS Act. Any such appointed person shall be trained on any occupational health and safety matter and the OHS Act provisions pertinent to the work is to be performed under his responsibility. Copies of any appointments made by the Mandatary shall immediately be provided to the Employer.

5.2 The Mandatary shall further ensure that all his employees are trained on the health and safety aspects relating to the work to be done on the premises of the Employer and that they understand the hazards associated with such work being carried out on the premises. Without derogating from the foregoing, the Mandatary shall, in particular, ensure that all his users or operators of any materials, machinery or equipment are properly trained in the use of such materials, machinery or equipment.

5.3 Notwithstanding the provisions of the above, the Mandatary shall ensure that he, his appointed responsible persons and his employees are at all times familiar with the provisions of the OHS Act, and that they comply with the provisions of the Act.

6. SUPERVISION, DISCIPLINE AND REPORTING

6.1 The Mandatary shall ensure that all work performed on the Employer's a premise is done under strict supervision and that no unsafe or unhealthy work practices are permitted. Discipline regarding health and safety matters shall be strictly enforced against any of his employees regarding non-compliance by such employee with any health and safety matters.

6.2 The Mandatary shall further ensure that his employees report to him all unsafe or unhealthy work situations immediately after they become aware of such conditions and that he in turn immediately reports these to the Employer and/or his representative.

7. ACCESS TO THE OHS ACT

7.1 The Mandatary shall ensure that he has an updated copy of the OHS Act on site at all times and that this is accessible to his appointed responsible persons and employees, save that the parties may make arrangements for the Mandatary and his appointed responsible persons and employees to have access to the Employer's updated copy/copies of the Act.

8. COOPERATION

8.1 The Mandatary and/or his responsible persons and employees shall provide full co-operation and information if and when the Employer or his representative inquires into any occupational health and safety issues concerning the Mandatary. It is hereby recorded that the Employer and his representative shall at all times be entitled to make such inquiry.

8.2 Without derogating from the generality of the above, the Mandatary and his responsible persons shall make available to the Employer and his representative, on request, all and/or any checklists and inspection registers required to be kept by him in respect of any of his materials, machinery or equipment.

9. WORK PROCEDURES

9.1 The Mandatary shall, after having established the dangers associated with the work performed, develop and implement mitigation measures to minimize or eliminate such dangers for the purpose of ensuring a healthy and safe working environment. The Mandatary shall then ensure that his responsible persons and employees are familiar with such mitigation measures.

9.2 The Mandatary shall implement any other safe work practices as prescribed by the Employer and shall ensure that his responsible persons and employees are made conversant with such other safe work practices as prescribed by the Employer and that his responsible persons and employees adhere to such safe work practices.

9.3 The Mandatary shall ensure that work for which any permit is required by the Employer is not performed by his employees prior to the Employer obtaining such permit from the Mandatary.

10. HEALTH AND SAFETY MEETINGS

10.1 If required in terms of the OHS Act, the Mandatary shall establish his own health and safety committee(s) and ensure that his employees, being the committee members, provide health and safety representatives to attend the Employer's health and safety committee meetings.

11. COMPENSATION REGISTRATION

11.1 The Mandatary shall ensure that he has a valid proof of registration with the Compensation Commissioner, as required in terms of **COID Act**, and that all payments owing to the Commissioner are discharged. The Mandatary shall further ensure that the cover remain in force while any such employee is present on the premises.

12. MEDICAL EXAMINATIONS

12.1 The Mandatary shall ensure that all his employees undergo routine medical examinations and that they are medically fit for the purposes of the work they are to perform.

13. INCIDENT REPORTING AND INVESTIGATION

13.1 All incidents referred to in Section 24 of the OHS Act shall be reported by the Mandatary to the Department of Labour and to the Employer. The Employer shall further be provided with copies of any written documentation relating to any incident.

13.2 The Employer retains an interest in the reporting of any incident as described above as well as in any formal investigation and/or inquiry conducted in terms of section 32 of the OHS-Act into such incident.

14. SUBCONTRACTORS

14.1 The Mandatary shall notify the Employer of any subcontractor he may wish to perform work on his behalf on the Employer's premises. It is hereby recorded that all the terms and provisions contained in this clause shall be equally binding upon the subcontractor prior to the subcontractor commencing with the work. Without derogating from the generality of this paragraph:

14.1.1 The Mandatary shall ensure that training as discussed under appointments and training, is provided prior to the subcontractor commencing work on the Employer's premises.

14.1.2 The Mandatary shall ensure that work performed by the subcontractor is done under his strict supervision, discipline and reporting.

14.1.3 The Mandatary shall inform the Employer of any health and safety hazards and/or issue that the subcontractor may have brought to his attention.

14.1.4 The Mandatary shall inform the Employer of any difficulty encountered regarding compliance by the subcontractor with any health and safety instruction, procedure and/or legal provision applicable to the work the subcontractor performs on the Employer's premises.

15. SECURITY AND ACCESS

15.1 The Mandatary and his employees shall enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the Employer. The Mandatary shall ensure that employees observe the security rules of the Employer at all times and shall not permit any person who is not directly associated with the work from entering the premises.

15.2 The Mandatary and his employees shall not enter any area of the premises that is not directly associated with their work.

15.3 The Mandatary shall ensure that all materials, machinery or equipment brought by him onto the premises are recorded at the main gate(s) and/or checkpoint(s). Failure to do this may result in a refusal by the Employer to allow the materials, machinery or equipment to be removed from the Employer's premises.

16. FIRE PRECAUTIONS AND FACILITIES

16.1 The Mandatary shall ensure that an adequate supply of fire-protection and first-aid facilities are provided for the work to be performed on the Employer's premises, save that the Parties may mutually make arrangements for the provision of such facilities.

16.2 The Mandatary shall further ensure that all his employees are familiar with fire precautions at the premises, which includes fire-alarm signals and emergency exits, and that such precautions are adhered to.

17. ABLUTION FACILITIES

17.1 The Mandatary shall ensure that an adequate supply of ablution facilities are provided for his employees performing work on the Employer's premises, save that the parties may mutually make arrangements for the provision of such facilities.

18. HYGIENE AND CLEANLINESS

18.1 The Mandatary shall ensure that the work site and surround area is at all times maintained to the reasonably practicable level of hygiene and cleanliness. In this regard, no loose materials shall be left lying about unnecessarily and the work site shall be cleared of waste material regularly and on completion of the work.

19. NO NUISANCE

19.1 The Mandatary shall ensure that neither he nor his employees undertake any activity that may cause environmental impairment or constitute any form of nuisance to the Employer and/or his surroundings.

19.2 The Mandatary shall ensure that no hindrance, hazard, annoyance or inconvenience is inflicted on the Employer, another Mandatary or any tenants. Where such situations are unavoidable, the Mandatary shall give prior notice to the Employer.

20. INTOXICATION NOT ALLOWED

20.1 No intoxicating substance of any form shall be allowed on site. Any person suspected of being intoxicated shall not be allowed on the site. Any person required to take medication shall notify the relevant responsible person thereof, as well as the potential side effects of the medication.

21. PERSONAL PROTECTIVE EQUIPMENT

21.1 The Mandatary shall ensure that his responsible persons and employees are provided with adequate personal protective equipment (PPE) for the work they may perform and in accordance with the requirements of General Safety Regulation 2 (1) of the OHS Act. The Mandatary shall further ensure that his responsible persons and employees wear the PPE issued to them at all material times.

22. PLANT, MACHINERY AND EQUIPMENT

22.1 The Mandatary shall ensure that all the plant, machinery, equipment and/or vehicles he may wish to utilize on the Employer's premises is/are at all times of sound order and fit for the purpose for which it/they is/are attended to, and that it/they complies/comply with the requirements of Section 10 of the OHS Act.

22.2 In accordance with the provisions of Section 10(4) of the OHS Act, the Mandatary hereby assumes the liability for taking the necessary steps to ensure that any article or substance that it erects or installs at the premises, or manufactures, sells or supplies to or for the Employer, complies with all the prescribed requirements and will be safe and without risks in terms of health and safety when properly used.

23. NO USAGE OF THE EMPLOYER'S EQUIPMENT

23.1 The Mandatary hereby acknowledges that his employees are not permitted to use any materials, machinery or equipment of the Employer unless the prior written consent of the Employer has been obtained, in which case the Mandatary shall ensure that only those persons authorized to make use of such materials, machinery or equipment, have access thereto.

24. TRANSPORT

24.1 The Mandatary shall ensure that all road vehicles used on the premises are in a roadworthy condition and are licensed and insured. The Mandatary shall ensure that all drivers shall have relevant and valid driving licenses and the Mandatary shall ensure that no vehicle/s shall carry passengers unless it is specifically designed to do and that all drivers shall adhere to the speed limits and road signs on the premises at all times.

24.2 In the event that any hazardous substances are to be transported on the premises, the Mandatary shall ensure that the requirements of the Hazardous Substances Act 15 of 1973 are complied with fully all times.

25. CLARIFICATION

25.1 In the event that the Mandatary requires clarification of any of the terms or provisions of this Agreement, he should take the necessary steps to contact the Risk Manager of the Employer to obtain such clarification.

26. DURATION OF AGREEMENT

26.1 This Agreement shall remain in force for the duration of the work to be performed by the Mandatary and/or while any of the Mandatary's employees are present on the Employer's premises.

27. NON COMPLIANCE WITH THE AGREEMENT

27.1 If the Mandatory fails to comply with any provisions of this Agreement, the Employer shall be entitled to give the mandatory 7 (seven) days written notice to remedy such non-compliance and if the Mandatory fails to comply with such notice, then the Employer shall forthwith be entitled but not obliged, without prejudice to any other rights or remedies which the mandatory may have in law,

271.1 to suspend the main Agreement; or

27.1.2 To claim immediate performance and/or payment of such obligations.

27.2 Should mandatory continue to breach the contract on three occasions, then the Employer is authorised to suspend the main contract without complying with the condition stated in the clause above.

28. HEADINGS

The headings as contained in this Agreement are for reference purposes only and shall not be construed as having any interpretative value in them or as giving any indication as to the meaning of the contents of the paragraphs contained in this Agreement.

Thus done and signed

at _____on the _____ day of _____ 201__

_____

For and on behalf of the Employer

Witnesses:

1. _____

2. _____

at _____on the _____ day of _____ 201__

_____

for and on behalf of the Mandatary

Witnesses:

3. _____

4. _____

T2.2-06e 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:

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T2.2-07: Returnable: Enterprise Risk and Business Continuity Management Requirements (Due Diligence)

Tenderers to identify and evaluate the potential risk elements associated with the Works/ Services etc. and possible mitigation thereof. The risk elements and the mitigation as identified thereof by the Tendered are to be submitted.

If no risks are identified "No Risk" must be stated on this schedule.

Tenders are also to evaluate any risk/s stated by the Employer in Contract Data Part C1 and provided possible mitigation thereof.

Tenderers to demonstrate their understand of for potential Business Continuity threats, through a relevant Business Impact Analysis process and measures to be implemented to recover associated Works/ Services within pre-defined recovery times, to ensure Business Continuity.

Attached submissions:

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Tenders to note: Notwithstanding this information, all costs related to risk elements which are at the Contractor's risk are deemed to be included in the tenderer's offered total of the Prices.

The Due Diligence of the Tenderer's Risk Elements will be as follows:

1. Due Diligence Elements: Risk Management and Business Continuity Management	
Tender Number: SIG 24021CIDB (HOAC HO 40221)/3	
Tender Description: **REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGION) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS.**	
1.1. Business Impact Analysis	**Due Diligence**
1.1.1. Identification of critical processes within the project / service: Demonstrate that the critical activities and/ or processes are identified. These are activities and/ or processes if disrupted prevent project completion / service delivery. **1.1.2. Recovery Time Objective (RTO) in case of any interruption that may arise:** Detail for each of the above critical activities and/ or processes what is the determined acceptable recovery time objective for re-instatement of the activity/ process (consider all applicable SLA or regulatory requirements). **1.1.3. Recovery Strategy:** How will the service provider/ supplier recover - Detail the step-by-step process as to how the critical activities and/ or processes will be recovered? In which order? Whom is to undertake the recovery etc. **1.1.4. Operational dependencies:** Note all internal and external dependencies for the recovery of the listed critical activities and/ or processes e.g.: Operational equipment, telephones etc. needed to ensure continuity. **1.1.5. Alternative supply of equipment and/ or supply of extra staff:** Provide adequate information on how alternate equipment or additional experienced staff will be secured if a BCM incident negatively impacting these resources as originally allocated for completion of a project/ delivery of a service. **1.1.6. Battle Box:** Provide details on whether a battle box is established and what its entails/ contains. This may be either a physical collection or an electronic repository of recovery plans, other necessary documentation, templates, memo's, letter heads etc. required for re-instatement of business-critical systems. In some instance this can also include off-site stores of certain equipment or electronic devices etc.	The 6 listed elements for the BIA are required. All elements will be assessed as per the guide provided, for adequacy and relevance to the project / service offering etc. and a due diligence report provided.
1.2. Business Continuity Plan	**Due Diligence**

Business Continuity Plan or related annexures to the plan must contain: **1.2.1. Emergency operating procedure:** Must detail the steps to be followed following a emergency situation/ incident for the site / location of impact. **1.2.2. Business Continuity Invocation Action:** Once the incident is under control and its impact determined and assessed, this details the when, the how and by whom the BCP will be invoked. **1.2.3. Project Recovery Resources:** Identify and list the recovery resources. These maybe additional resources or re-arrangement of existing resources as required to support the recovery of critical activities and/ or processes as detailed in the BCP, within the RTO. **1.2.4. Business/ Supplier Contact List:** Demonstrate that these have been identified and means to easily contact them is in place. **1.2.5. Emergency Contacts:** inclusive as per item 1 to initially deal with the incident (emergency services etc), then thereafter must also include the BCM recovery team members, names and contact details.	The 5 listed elements for the BIA are required. All elements will be assessed as per the guide provided, for adequacy and relevance to the project / service offering etc. and a due diligence report provided.
1.3. Risk Management Plan - Project/ Operational Risks be based on the scope of works / services etc.	**Due Diligence**
The Risk Management Plan based on the scope of works, must contain the following: **1.3.1. Identification of Risks of Project / Service Interruption during the project:** A risk register that contains the identified risks of service interruption and / or non-delivery of services etc. during the project. Demonstrate an understanding of the internal and external threats to effective service delivery within scope and to quality. **1.3.2. Risk Analysis Methodology:** Demonstrate for risk identified, the causes, risk consequence/ impact and risk likelihood/ probability rating and how the risk rating is calculated. The methodology may also provide a view on the effectiveness of controls and the residual risk after application of controls. **1.3.3. Ranking of the Risks:** Once the risk register is completed a risk heat map and listing of the risks by name/ risk description from highest to lowest ranked risk be provided. **1.3.4. Mitigation of the identified risks:** Provided in the risk register for each assessed risk the controls in place to manage the risk along with additional risk tasks to further mitigate the risk. **1.3.5. Responsible person:** Ensure the risks have assigned risk owners, assigned control owners for the checking on controls and any other person assigned a risk action to complete under the risk register.	The 5 listed elements for the BIA are required. All elements will be assessed as per the guide provided, for adequacy and relevance to the project / service offering etc. and a due diligence report provided.

2.2-07: Environmental Management Plan [Assessment Schedule]

The tenderer must provide an environmental management plan describing:-

- Key environmental impacts and aspects associated with the proposed project.
- Possible mitigation measures associated with identified impacts and aspects.
- Key roles and responsibilities for both the Tender's project team and Transnet with regards to the project.
- Monitoring techniques and reporting of both accidents and incidents.
- Details of induction and other forms of training (if any).

The following documents are key -

1.0 Transnet SOC Limited – Integrated Management Systems (IMS) Policy,

1.1 By signing this Tender Schedule, the tenderer confirms that they will comply with the above policy statement and environmental commitments therein.

1.2 Tender to provide a signed declaration of understanding as part of the returnable acknowledging understanding thereof and the budget provision for the implementation of environmental management requirements.

By signing this Tender Schedule, the tenderer confirms that they will **comply** with the above requirements and in particular Transnet Freight Rail IMS policy statement and environmental commitments therein.

The assessment of the Tenderer's Environmental Management Plan will be as follows:

Key Environmental Impacts and Possible Mitigation Measures	
	Assessment Feedback
The EMP is **not submitted** by the bidder.	
EMP with **zero/no key** impacts and mitigation measures specific to the project	
EMP contains **1-3** key impacts and mitigation measures specific to the project.	
EMP contains **4-6** key impacts and mitigation measures specific to the project.	
EMP contains **7-9** key reasonable and relevant impacts and mitigation measures specific to the project.	
EMP contains **10 and more** key reasonable and relevant impacts and mitigation measures specific to the project, which meet and exceed tender requirements.	
Key Roles and Responsibilities	
	Assessment Feedback
The EMP is **not submitted** by the bidder.	
EMP with **zero/no key** roles and responsibilities specific to the project.	
EMP **contains 1-3 key** reasonable and relevant roles and responsibilities specific to the project.	

EMP contains **4-6 key** reasonable and relevant roles and responsibilities specific to the project.	
EMP contains **7-9 key** reasonable and relevant roles and responsibilities specific to the project.	
EMP contains **10 and more key** reasonable and relevant roles and responsibilities specific to the project, which meet and exceed tender expectations.	
Environmental Monitoring, Training and Reporting	
	Assessment Feedback
The EMP is **not submitted** by the bidder.	
EMP with **zero/no** monitoring techniques, no training and no form of reporting.	
Tenderer did not demonstrate understanding of the project scope and **provided irrelevant information** on monitoring techniques, training methods and types of reports.	
Tenderer understood the project scope but provided relevant but **less detailed information** on monitoring techniques, training methods and types of reports.	
Tenderer understood the project scope and identified **relevant** monitoring techniques, relevant training methods and relevant reports.	
Tenderer understood the project scope and addresses critical aspects with regards to monitoring, training and reporting which meets **and exceeds tender requirements**.	

Attached submissions to this schedule:

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Signed ..... Date .....

Name ..... Position .....

Tenderer .....

.....

T2.2-08: Changes to Tender Document

Changes to the tender documents are only allowed if a main tender complying fully with the tender documents has also been provided.

Do not return this schedule if no alternative tender is submitted.

The Conditions of Tender state that the tenderer may:

C.2.12.1 Submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the tenderer proposes.

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

Having examined the criteria stated in the Tender Data for this tender the proposed changes to the tender documents are:

Document No.	Subject of the proposed change	Propose to change to:

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2-09: Affected Property Establishment Requirements

Tenderers to indicate their Affected Property establishment area requirements:

Signed .....

Name .....

Tenderer .....

T2.2-10: 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 .....

T2.2-11: 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		

Attach additional pages if more space is required.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2-12: 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 Service 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 Service 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:

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T2.2-13: Availability of Equipment and Other Resources

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

Equipment Type and Availability – Description	Hourly Rate	Number of Equipment	Details of Ownership

T2.2-14: ANNEX G Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

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

Section 1: Name of enterprise: _____

Section 2: VAT registration number, if any: _____

Section 3: CIDB registration number, if any: _____

Section 4: CSD number: _____

Section 5: Particulars of sole proprietors and partners in partnerships

Name	**Identity number**	**Personal income tax number**

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

Section 6: Particulars of companies and close corporations

Company registration number _____

Close corporation number _____

Tax reference number: _____

Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.
Section 8: The attached SBD 6 must be completed for each tender and be attached as a requirement.

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

i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;

ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;

iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;

iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and

v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed ..... Date .....

Name ..... Position .....

Enterprise name .....

SBD 6.1

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
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The value of this bid is estimated to exceed R50 000 000 (all applicable taxes included) and therefore the 10-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:

	POINTS
PRICE	**90**
B-BBEE Level of Contributor (1 or 2)	**3**
Entities that are at least 50% black Youth Owned	**2**
Local Content Designated sectors and thresholds: Office furniture =1 points Steel products and components for construction= 1 points Plastic/pvc pipes = 1 points Steel power pylons 100%= 1 points electrical cable products 90%= 1 points Industrial lead batteries 50%= 1 points **Annexure C-** **Annexure D-** **Annexure E-** Please note we will have varying points allocation depending on how they complete LC annexures	**5**

All annexures C D and E submitted and fully completed per sector =1 full points Only C fully submitted and completed fully per sector =1/2 point No submission at all= 0 points	
Total points for Price and B-BBEE 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 90 points is allocated for price on the following basis:

90/10

$$Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$$

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. EVEDINCE 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 contributor	B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
+50% Black Youth Owned Entities	Certified copy of ID Documents of the Owners and B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
Local Content and Local Production	Returnable Local Content and production Annexures
Creation of new jobs and labour intensification	T 2.2.23 Job Creation Schedule Returnable documents

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

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

4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.

4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

5. BID DECLARATION

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

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

6.1 B-BBEE Status Level of Contribution: . = ……(maximum of 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: …….. ADDRESS: ……..

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

1.1 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, 1996 (Constitution), and further expressed in the various applicable legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

1.2 If a person is 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. DECLARATION ON EMPLOYMENT BY ORGAN OF STATE

2.1 Is the bidder, or any of the directors / trustees / shareholders / members / partners of the bidder employed by an organ of state, as defined in section 239 of the Constitution? **YES/NO**

2.2 If YES, furnish particulars of the names, individual identity numbers, in the table below:

Full Name	**Identity Number**	**Name of organ of state**

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

2.3.1 If so, furnish particulars:

……
……

2.4 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**

2.4.1 If so, indicate all companies registered in the CSD in the table below:

Supplier registration number (MAAA)	**Status (active/inactive/deleted)**

Failure to disclose all CSD-registered active companies linked to all Directors will lead to disqualification**.**

3 GENERAL DECLARATION

I, ……....., the undersigned, 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 to be false.

3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor.

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.

3.5 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.

3.6 There have been no consultations, communications, agreements or arrangements made 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.

3.7 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, 1998 (Act No. 89 of 1998) and or may be referred to law enforcement agencies for criminal investigation and or may be restricted from conducting business with the state for a period not exceeding 10 years in terms of the Prevention and Combating of Corrupt Activities Act, 2004 (Act No. 12 of 2004) or any other applicable legislation.

I CERTIFY THAT THE ABOVE IS CORRECT.

I ACCEPT THAT THE PROCURING INSTITUTION MAY REJECT THE BID OR TAKE APPROPRIATE

ACTION AGAINST ME IF THIS DECLARATION IS FALSE.

…… ……
Signature Date

…… ……...
Designation Name of bidder

T2.2-15: 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

T2.2-16: Unilateral 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 2nd Floor, Waterfall Business Estate, 9 Country Estate Drive, Midrand, 1662, South Africa

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	.....		

T2.2-17: Supplier declaration form

Respondents are to furnish the following documentation and complete the Supplier Declaration Form below:

1. **Original or certified** cancelled cheque **OR** letter from the Respondent's bank verifying banking details [**with bank stamp]**
2. **Certified copy** of Identity Document(s) of Shareholders/Directors/Members *[where applicable]*
3. **Certified copy** of Certificate of Incorporation, CM29 / CM9 *[name change]*
4. **Certified copy** of Share Certificates [CK1/CK2 if CC]
5. Original or certified letterhead confirm physical and postal addresses
6. **Original or certified** valid SARS Tax Clearance Certificate [RSA entities only]
7. **Certified copy** of VAT Registration Certificate [RSA entities only]
8. A signed letter from your entity's auditor or accountant confirming most recent annual turnover figures or certified BBBEE certificate
9. **Certified copy** of valid Company Registration Certificate *[if applicable]*

Note: No contract shall be awarded to any South African Respondent whose tax matters have not been declared by SARS to be in order.

Note: No agreement shall be awarded to any Respondent whose tax matters have not been declared by SARS to be in order.

Company Trading Name						
Company Registered Name						
Company Registration Number Or ID Number If A Sole Proprietor						
Form of entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
VAT number (if registered)						

Company Telephone Number	
Company Fax Number	
Company E-Mail Address	
Company Website Address	

Bank Name		Bank Account Number	

Postal Address			
		Code	
Physical Address			
		Code	

Contact Person	
Designation	
Telephone	
Email	

Annual Turnover Range (Last Financial Year)	< R5 Million		R5-35 million		> R35 million	
Does Your Company Provide	Products		Services		Both	
Area Of Delivery	National		Provincial		Local	

Is Your Company A Public Or Private Entity	Public		Private	
Does Your Company Have A Tax Directive Or IRP30 Certificate	Yes		No	
Main Product Or Service Supplied (E.G.: Stationery/Consulting)				

BEE Ownership Details					
% Black Ownership		% Black women ownership		% Disabled person/s ownership	
Does your company have a BEE certificate	Yes		No		
What is your broad based BEE status (Level 1 to 9 / Unknown)					
How many personnel does the firm employ	Permanent		Part time		

Transnet Contact Person	
Contact number	
Transnet operating division	

Duly Authorised To Sign For And On Behalf Of Firm / Organisation			
Name		Designation	
Signature		Date	

Stamp And Signature Of Commissioner Of Oath			
Name		Date	
Signature		Telephone No.	

T2.2-18: 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 T2.2-20 "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.
- An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to procurement.ombud@transnet.net
- For transactions below the R5,000,000.00 (five million S.A. Rand) threshold, a complaint may be lodged with the Chief Procurement Officer of the relevant Transnet Operating Division.
- All 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.

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

NAME OF TENDERING ENTITY:

_____

1. By signing this certificate I/we acknowledge that I/we have made myself/ourselves thoroughly familiar with, and agree with all the conditions governing this RFP. This includes those terms and conditions of the Contract, the Supplier Integrity Pact, Non-Disclosure Agreement etc. contained in any printed form stated to form part of the documents thereof, but not limited to those listed in this clause.

2. I/we furthermore agree that Transnet SOC Ltd shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any tender/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.

3. I/we understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect.

4. For the purposes of this Certificate and the accompanying Tender, I/we understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:

   a) has been requested to submit a Tender in response to this Tender invitation;

   b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and

   c) provides the same Services as the Tenderer and/or is in the same line of business as the Tenderer

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

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

   a) prices;

   b) geographical area where Services will be rendered [market allocation]

   c) methods, factors or formulas used to calculate prices;

   d) the intention or decision to submit or not to submit, a Tender;

   e) the submission of a tender which does not meet the specifications and conditions of the tender; or

   f) Tendering with the intention not winning the tender.

7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this tender relates.

8. The terms of the accompanying tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.

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

Signed on this _____ day of _____20___

_____

SIGNATURE OF TENDERER

T2.2-20: Service Provider Integrity Pact

Important Note: All potential tenderers must read this document and certify in the RFP Declaration Form that that 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 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.

OBJECTIVES

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.

COMMITMENTS OF TRANSNET

Transnet commits to take all measures necessary to prevent dishonesty, fraud and corruption and to observe the following principles:
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.
Transnet will, during the registration and tendering process treat all Tenderers / Service Providers with equity, transparency and fairness. Transnet will in particular, before and during the registration process, provide to all Tenderers / Service Providers 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.
Transnet further confirms that its employees will not favour any prospective Tenderer 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.
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.

OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER

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.

The acceptance and giving of gifts may be permitted provided that:

a) the gift does not exceed R1 000 (one thousand Rand) in retail value;

b) many low retail value gifts do not exceed R 1 000 within a 12 month period;

c) hospitality packages do not exceed R5 000 in value or many low value hospitality packages do not cumulatively exceed R5 000;

d) a Tenderer / Service Provider does not give a Transnet employee more than 2 (two) gifts within a 12 (twelve) month period, irrespective of value;

e) a Tenderer / Service Provider does not accept more than 1 (one) gift in excess of R750 (seven hundred and fifty Rand) from a Transnet employee within a 12 (twelve) month period, irrespective of value;

f) a Tenderer / Service Provider may under no circumstances, accept from or give to, a Transnet employee any gift, business courtesy, including an invitation to a business meal and /or drinks, or hospitality package, irrespective of value, during any Tender evaluation process, including a period of 12 (twelve) months after such tender has been awarded, as it may be perceived as undue and improper influence on the evaluation process or reward for the contract that has been awarded; and

g) a Tenderer / Service Provider may not offer gifts, goods or services to a Transnet employee at artificially low prices, which are not available to the public at those prices.

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.

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.

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 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.

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.
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 or detriment of Transnet or other competitors.
The Tenderer / Service Provider / Contractor shall furnish Transnet with a copy of its code of conduct, which code of conduct shall reject the use of bribes and other dishonest and unethical conduct, as well as compliance programme for the implementation of the code of conduct.
The Tenderer / Service Provider / Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

INDEPENDENT TENDERING

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.

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

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

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.
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.
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.
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.

Disqualification from Tendering Process

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 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 from its database, if already registered.

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.

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.

TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)

All the stipulations around Transnet's blacklisting process as laid down in Transnet's Supply Chain Policy and Procurement Procedures Manual are included herein by way of reference. Below follows a condensed summary of this blacklisting procedure.

Blacklisting is a mechanism used to exclude a company/person from future business with Transnet for a specified period. The decision to blacklist is based on one of the grounds for blacklisting. The standard of proof to commence the blacklisting process is whether a "prima facie" (i.e. on the face of it) case has been established.

Depending on the seriousness of the misconduct and the strategic importance of the Goods/Services, in addition to blacklisting a company/person from future business, Transnet may decide to terminate some or all existing contracts with the company/person as well.

A Service Provider or Contractor to Transnet may not subcontract any portion of the contract to a blacklisted company.

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.

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.

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.

PREVIOUS TRANSGRESSIONS

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.

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 Form contained in the applicable RFX document.)

SANCTIONS FOR VIOLATIONS

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; and
f) Exclude the Tenderer / Service Provider / Contractor from entering into any Tender with Transnet in future.

CONFLICTS OF INTEREST

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.

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.

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.

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.

MONITORING

Transnet will be responsible for appointing an independent Monitor to:

a) Conduct random monitoring of compliance to the provisions of this Integrity Pact for contracts entered into between Transnet and the Tenderer / Service Provider / Contractor for less than R100,000.000 (one hundred million Rand) in value;
b) Monitor compliance to the provisions of this Integrity Pact for contracts entered into between Transnet and the Tenderer / Service Provider / Contractor for greater than R100,000.000 (one hundred million Rand) in value; and
c) Investigate any allegation of violation of any provisions of this Integrity Pact for contracts entered into between Transnet and the Tenderer / Service Provider / Contractor, irrespective of value.

The Monitor will be subjected to Transnet's Terms of Conditions of Contract for the Provision of Services to Transnet, as well as to Transnet's Service Provider Code of Conduct.

EXAMINATION OF FINANCIAL RECORDS, DOCUMENTATION AND/OR ELECTRONIC DATA

For the purpose of Monitoring, as stipulated above, the Monitor shall be entitled to:

a) Examine the financial records, documentation and or electronic date of Tenderer / Service Provider / Contractor / Transnet. The Tenderer / Service Provider / Transnet shall provide all requested information / documentation / data to the Monitor and shall extend all help possible for the purpose of such examination.

DISPUTE RESOLUTION

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 0 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.

GENERAL

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

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.

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.

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

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 a Tenderer by it. To the best of the Parties' knowledge and belief, the information

T2.2-21: Request for Proposal – Breach of law

NAME OF COMPANY: _____

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

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

NATURE OF BREACH:

_____

_____

_____

DATE OF BREACH:

_____

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

Signed on this _____ day of _____ 20____

_____

SIGNATURE OF TENDER

T2.2-22: 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:

	Total number of Skilled jobs	**Total number of Semi-skilled jobs**	**Total number of Unskilled jobs**
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.

18 Months	**Term 1**	**Term 2**	**Term 3**	**Term 4**	**Term 5**	**Term 6**
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						

T2.2-23: 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 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/inforeg/, click on contact us, click on complaints.IR@justice.gov.za

3. SOLE AGREEMENT

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

Signed at _____ on this _____day of _____ 2021

Name: _____

Title: _____

Signature: _____

_____*(Name of company)*

(Operator)

Authorised signatory for and on behalf of ……(*Name of company*) who warrants that he/she is duly authorised to sign this Agreement.

AS WITNESSES:

1. Name: _____ Signature: _____

2. Name: _____ Signature: _____

T2.2-24: Insurance provided by the *Contractor*

Clause 83.1 in NEC3 Term Service 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 83.2 of the TSC)	**Name of Insurance Company**	**Cover**	**Premium**
Liability for 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			
Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R10 000 000.			
Insurance in respect of loss of or damage to own property and equipment.			
(Other)			

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2-25: 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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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 WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS, ON AN "AS AND WHEN" REQUIRED BASIS.

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 *currency of this contract* is the South African Rand.

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

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

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness ..... Date .....

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: Service Information
Part C4	Affected Properties

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		
6		
7		

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

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

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

C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X2: Changes in the law
		X17: Low service damages
		X18: Limitation of liability
		X19: Task Order
		Z: *Additional conditions of contract*
	of the NEC3 Term Service Contract (June 2005) (and amended June 2006 and April 2013)	
10.1	The *Employer* is:	**Transnet SOC Ltd**
	Address	Registered address: **Transnet Corporate Centre** **Cnr Jet Park & North Reef Road,** **Elandsfontein** **Germiston** **1601**
	Having elected its Contractual Address for the purposes of this contract as:	**150 Commissioner Street** **Carlton Centre** **Johannesburg** **2000**
10.1	The *Service Manager* is (name):	**Mr Mila Sobetwa**
	Address	**138 Eloff Street**
	e-mail	**Mila.Sobetwa@transnet.net**

11.2(2)	The Affected Property is	**Depots under Central and Container Region**

Central	Vereeniging
	Heidelberg
	Isando
	Krugersdorp
	Polokwane
	Koedoespoort
Container	Durban
	Ladysmith

11.2(13)	The *service* is	**REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGION) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS.**
11.2(14)	The following matters will be included in the Risk Register	**Electrical cabling** **Working at hights**
11.2(15)	The Service Information is in	**Service Information**
12.2	The *law of the contract* is the law of	**the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**2 weeks**
2	**The *Contractor*'s main responsibilities**	**No additional data is required for this section of the *conditions of contract*.**
21.1	The *Contractor* submits a first plan for acceptance within	**2 weeks of the Contract Date**
3	**Time**	
30.1	The *starting date* is	**TBA**
30.1	The *service period* is	**60 Months**
4	**Testing and defects**	**No additional data is required for this section of the *conditions of contract*.**
5	**Payment**	
50.1	The *assessment interval* is	**25th (twenty fifth) day of each successive month.**
51.1	The *currency of this contract* is the	**South African Rand.**
51.2	The period within which payments are made is	**Payment will be affected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.**

51.4	The *interest rate* is	**The prime lending rate of the Standard Bank South Africa.**
6	**Compensation events**	
	These are additional compensation events:	**1. A weather measurement is determined by a suitable weather station most conveniently located in the Affected area** **2. The *weather data* is the weather data issued with the Task Order or within [5 days] thereof, covering the area in which the Affected Property is situated, or if not so issued the national weather data available from the South African Weather Services**
7	**Use of Equipment Plant and Materials**	**No additional data is required for this section of the *conditions of contract*.**
8	**Risks and insurance**	
83.1	The minimum limit of indemnity for insurance in respect of loss and damage to property (except goods, plant and materials and equipment) and liability for bodily injury or death of a person (not an employee of the *Contractor)* caused by activity in connection with this contract for any one event is:	**Whatever *Contractor* deems necessary as the *Employer* is not carrying this indemnity.**
83.1	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:	**As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the *Contractor's* common law liability for people falling outside the scope of the Act.**
83.1	Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R10 000 000	
83.1	The *Contractor* liability to the *Employer* for indirect or consequential loss including loss of profit, revenue and goodwill, is limited to:	**The total of the prices.**

83.1	For any one event, the *Contractor* liability to the *Employer* for loss of or damage to the *Employers* property is limited to:	**The total of the prices.**
83.1	The *Contractor* total liability to the *Employer* for all matters arising under or in connection with this contract, other than the excluded matters, is limited to:	**The total of the prices.**
9	**Termination**	**There is no Contract Data required for this section of the *conditions of contract*.**
10	**Data for main Option clause**	
A	**Priced contract with price list**	
20.5	The *Contractor* prepares forecasts of the final total of the Prices for the whole of the *service* at intervals no longer than	**4 (Four) weeks.**
11	**Data for Option W1**	
W1.1	The *Adjudicator* is (Name)	**Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the *Adjudicator*, the chairman of the Association of Arbitrators will appoint an *Adjudicator.***
W1.2(3)	The *Adjudicator nominating body* is: If no *Adjudicator nominating body* is entered, it is	 **The Association of Arbitrators (Southern Africa)**
W1.4(2)	The *tribunal* is:	**Arbitration**
W1.4(5)	The *arbitration procedure* is The place where arbitration is to be held is The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)** **Johannesburg, South Africa** **The Chairman of the Association of Arbitrators (Southern Africa)**
12	**Data for secondary Option clauses**	
X2	**Changes in the law**	**No additional data is required for this Option**
X17	**Low service damages**	

X17.1 The *service level table* is in

Performance level	**% Achieved of performance against Time worked for each task order**	**Low service damages for each task order**
Rate of installation (as per *Contractor's* Services Information)	99-100% performance achieved	R0 (nil)
	95 - 98% performance achieved	2,5% of the Price for Services Provided to Date in terms of the Task Order (Item 2 on the Task Order as per Price List)
	90 – 94% performance achieved	5% of the Price for Services Provided to Date in terms of the Task Order (Item 2 on the Task Order as per Price List)
	88-89% performance achieved	7,5% of the Price for Services Provided to Date in terms of the Task Order (Item 2 on the Task Order as per Price List)
	86-87% performance achieved	10% of the Price for Services Provided to Date in terms of the Task Order (Item 2 on the Task Order as per Price List)
	84-85% performance achieved	12,5% of the Price for Services Provided to Date in terms of the Task Order (Item 2 on the Task Order as per Price List)
	<84% performance achieved	15% of the Price for Services Provided to Date in terms of the Task Order (Item 2 on the Task Order as per Price List)

X18	**Limitation of liability**	
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to	**In respect of each Task Order 10% of the total of the Prices for the Task Order or R1,000,000.00 (One million Rand), whichever is the higher amount.**
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to	**The deductible in terms of the *Employer's* arranged insurance.**
X18.3	The *Contractor*'s liability for Defects due to his design of an item of Equipment is limited to	**In respect of each Task Order, the total of the Prices for the Task Order other than for the additional excluded matters.**

X18.4	The *Contractor*'s total liability to the *Employer*, for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	**In respect of each Task Order, the total of the Prices for the Task Order other than for the additional excluded matters.** • **The *Contractor's* total liability for the additional excluded matters is not limited.** • **The additional excluded matters are amounts for which the *Contractor* is liable under this contract for** • **Defects due to his design, plan and specification,** • **Defects due to manufacture and fabrication outside the Affected Property,** • **loss of or damage to property (other than the *Employer*'s property, Plant and Materials),** • **death of or injury to a person and** • **infringement of an intellectual property right.**
X18.5	The *end of liability date* is	**06 (Six) months after the completion of the *services* at a specific Affected Property or the completion of a Task Order (whichever is applicable).**
X19	**Task Order**	
X19.5	The *Contractor* submits a Task Order programme to the *Service Manager* within	**5 (five) days of receiving the Task Order.**
Z	***Additional conditions of contract***	
Z1	**Obligations in respect of Termination**	
	Z1.1	The following will be included under core clause 91.1: In the second main bullet, after the word 'partnership' add 'joint venture whether incorporated or otherwise (including any constituent of the joint venture)'; and Under the second main bullet, insert the following additional bullets after the last sub-bullet: • commenced business rescue proceedings (R22) repudiated this Contract (R23)
Z1.2	Termination Table	The following will be included under core clause 90.2 Termination Table as follows: Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"
Z1.3		Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."
Z2	**Right Reserved by Transnet to Conduct Vetting through SSA**	

Z2.1		Transnet 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. 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.
Z3	**Additional clause relating to Collusion in the Construction Industry**	
Z3.1		The contract award is made without prejudice to any rights Transnet may have to take appropriate action later with regard to any declared bid rigging including blacklisting.
Z4	**Protection of Personal Information Act**	
Z4.1		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.
Z5	**Contract Skills Development Goal (CSDG) (0.5% factor of the sub-total)**	
	Contract Skills Development Goal -Grade 7-9	
Z5.1		The contractor shall, in the performance of the contract, achieve the Contract Skills Development Goal (CSDG) established **in the cidb Standard for Developing Skills thorough Infrastructure Contracts, published in Gazette Notice No.54575, 24 April 2026.**
Z6	**Standard for Developing Skills through Infrastructure Contracts-**	
Z6.1		The contractor shall, in the performance of the contract, achieve the Contract Skills Development Goal (CSDG) established in the Standard
Z7	**Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts**	

Z7.1		The Contractor shall, in the performance of the contract, achieve the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises established in the Standard
Z8	**Conditions of Contract**	
Z7.1	**Job creation and preservation**	The proposal must show the total value and number of jobs to be created/preserved for the duration of the contract. These should cover the following designated groups: 1. Black Youth, Black women, People living with disabilities, People living in rural or underdeveloped areas or townships
28.2	**Training and Skills development**	
		The skills must be linked to an outcome-based approach where bidders will be required to certify and accredit local suppliers to enable their participation in maintenance and related services opportunities. This must also be linked to race, gender, age, disability and geography.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

The tendering *contractor* is advised to read both the NEC3 Term Service Contract (June 2005) and the relevant parts of its Guidance Notes (TSC3-GN) in order to understand the implications of this Data which the tenderer is required to complete.

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

Clause	Statement	Data
10.1	The *Contractor* is (Name):	
	Address	
	Tel No.	
	Fax No.	
11.2(8)	The *direct fee percentage* is	**%**
	The *subcontracted fee percentage* is	**%**
24.1	The *Contractor's* key persons are:	
	1 Name:	
	Job:	
	Responsibilities:	
	Qualifications:	
	Experience:	
	2 Name:	
	Job	
	Responsibilities:	
	Qualifications:	
	Experience:	
	CV's (and further key persons data including CVs) are appended to Tender Schedule entitled.	
A	**Priced contract with price list**	
11.2(12)	The *price list* is in	**C2.2**
11.2(19)	The tendered total of the Prices is	**R_____ incl. vat**

PART C2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions: Option A	1
C2.2	Price List	2-13

C2.1 Pricing instructions: Option A

1.1 The *conditions of contract*

1.2 How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Term Services Contract (TSC), June 2005 (with amendments June 2006 and April 2013) Option A states:

Identified and defined terms 11 11.2 (17) The Price for Services Provided to Date is the total of

- the Price for each lump sum item in the Price List which the *Contractor* has completed and
- where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.

(19) The Prices are the amounts stated in the Price column of the Price List, where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

1.3 Measurement and Payment

1.3.1 The Price List provides the basis of all valuations of the Price for Services Provided to Date, payments in multiple currencies and general progress monitoring.

1.3.2 The amount due at each assessment date is based on activities and/or milestones completed as indicated on the Price List.

1.3.3 The Price List work breakdown structure provided by the *Contractor* is based on the activity/milestone provided by the Employer. The activities listed by the *Employer* are the minimum activities acceptable and identify the specific activities which are equired to achieve Completion. T**he Price List work breakdown structure is compiled to the satisfaction of the *Employer* with any additions and/or amendments deemed necessary.**

1.3.4 The *Contractor's* detailed Price List summates back to the activity/milestone provided by the *Employer* and is sufficient detail to monitor completion of activities related to the operations on the Accepted Plan in order that payment of completed activities may be assessed.

1.3.5 The Prices are obtained from the Price List. The Prices includes for all direct and indirect costs, overheads, profits, risks, liabilities, obligations, etc. relative to the contract.

2. **Contract Skills Development Goals**

The contractor shall determine the CSDG, expressed in Rand, which shall not be less than the sub-total multiplied by a percentage (%) factor given in **Table 2 of the Standard for the applicable class of** construction works. The Employer shall state the percentage (%) factor in the Final Tender Summary section dependant on the Class of Construction Works.

Table 2: Construction skills development goals for different classes of engineering and construction works contracts.

Class of construction works as identified in terms of the cidb regulation		**Construction skills development goal (%)**
Designation	**Description**	
GB	General Building	0.5

3. **Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts for CIDB (for CIDB Class for Construction Works- General Building (GB)**

The amount to be paid for the Contract Participation Goal (CPG) on the contract and this amount shall be stated under the section Enterprise Development as a Provisional Sum in the Preliminaries and Generals (P&Gs)

The rates given in **Table 1** below are the recommended rates to guide the Employer to determine the amount for Enterprise Development per targeted enterprise. The Employer may adjust these rates which may be affected by factors such as location of the project. The Employer must include this amount as a Provisional Sum in the Preliminary and General (P&G) section as illustrated in Table 1.

Note: This item should not be a determinant in the competitiveness of the bid.

Preliminary and General (Extract Indicating Provisional Sum from P&Gs)

Table 1. Breakdown of the items per Targeted Enterprise to be included in the tender data					
4			**Enterprise Development**		
4.1			Enterprise Development of Targeted Enterprise or JV partners		
4.1.1	Needs Analysis and Enterprise Development Plan per Targeted Enterprise	No.	5000	1	5000
4.1.2	Monitoring and Interim reporting per targeted enterprise	Per Quarter	20000	4	80000
4.1.3	Project Completion report per Targeted Enterprise	No.	5000	1	5000
Provisional Sum					**90 000**

In Table 1:

Item 4.1.1 refers to the Needs Analysis the contractor shall conduct on the targeted enterprise and / or JV partner to identify the developmental goals at R5000.00 (five thousand rands) per targeted enterprise.
Item 4.1.2 refers to the Monitoring and Interim reporting to be conducted by the contractor as per the Standard at R20 000.00 (twenty thousand rands) per quarter.
Item 16.1.3 refers to the Completion report, the contractor shall submit the Completion report to the Employer's representative

C2.2 PRICE LIST

ITEM	DESCRIPTION	UNIT	QTY	RATE Yr 1	RATE Yr 2	RATE Yr 3	RATE Yr 4	RATE Yr 5`
1	**PRELIMINARY AND GENERAL**							
1.1	Preliminary and general (PNG). Preliminaries are those items that a project cannot do without but are not directly involved with the final product.	Sum	1					
1.2	Health and safety requirements (Act 85 of 1993).	Sum	1					
1.3	Contractual requirements	Sum	1					
1.4	Site establishment and de-establishment	Sum	1					
2	**Equipment Housing**							
2.1	**New Housing Structure**							
2.2	Install a 2.5m x 2.5m concrete structure with a 3m x 3m plinth according to BBH 5096	Each	1					
2.3	Install a 1.2m x 1.2m outdoor cabinet with a 1.5m x1.5m plinth according to specification BBH 5111	Each	1					
2.4	Installation of 30U indoor equipment cabinet	Each	1					
2.5	Installation of 42U indoor equipment cabinet	each	1					
2.6	Installation of 38U indoor equipment cabinet	each	1					

2.7	Install New Container2	each	1					
3.	**Building Refurbishments and Structural Enhancements**							
3.1	Remove existing corrugated iron roof sheets, Asbestos, rate to include complete disposal of sheets at an approved municipal dumping site	m^2	1					
3.2	cement screed on concrete floor 30mm thick, screed to have a 2% camber on roof towards drainage down-pipes.	m^2	1					
3.3	Remove existing. Supply and apply one layer of 5mm thick TOCH-ON waterproofing membrane with 100mm overlaps, sealed to primed surface **at the roof catchment area**, falls and cross-falls by torch-fusion and finished with 2 coats bituminous aluminium paint. Waterproofing to be installed according to manufacture instructions. Item incudes primer.	m^2	1					
3.4	Supply and install 8mm thick galvanized IBR sheeting, roof to have 500mm overhang on all sides painted dark grey including related timber	m^2	1					
3.5	Remove, steel wooded door, and disposal at approved municipal dumping site	Each	1					
3.6	Install new Safe door	Each	1					
3.7	Apply Three coats oil base Silk Wood to wooden doors	m^2	1					
3.8	Supply and fit Tiara 645 x 540mm vanity Basin include new waste fitting, bottle trap and waste pipes (Colour white)	each	1					
3.9	Supply and fit White heavy duty plastic Economy B2 toilet seat	each	1					

3.10	Supply and fit Chrome basin mixer with 2 connectors for each basin	each	1					
3.11	Supply and fit 1.00 x 1.00 M Mirror at Basins fasten with screws,	each	1					
3.12	Supply and fit l pottery White porcelain WC close couple set with L shape mini ball valve and flexible connector	each	1					
3.13	Remove existing. Supply and install fittings necessary to complete job for complete installation of each Wash hand basin, rate to include 50mm uPVC drainage pipe mounted onto the wall with Aluminium holderbat (50mm) spaced 1m apart,	each	1					
3.14	Supply and fit pottery White porcelain screen between urinals	each	1					
3.15	Supply and fit wall mounted White glaze urinal Complete with flush master, Bottle trap and new waste pipes.	each	1					
3.16	Remove existing, supply and fit square gutter 100x75 mm.	each	1					
3.17	Supply and fit 100x75 square downpipes for gutters mounted onto wall with aluminium holder batts, downpipe to be fit at 12m intervals	each	1					
3.18	Remove existing. Supply and install Nutec Fascia board (300 x 10mm) Complete.	each	1					
3.19	Flushing of all existing plumbing lines to relieve blockage	m	1					
3.20	Supply and installation including plumbing of a Toilet SABS approved Gerbit or similar	each	1					

3.21	Remove existing wall / floor tiles, Chip 80% of the wall area to receive new tiles and apply key coat to wall /floor before laying tiles key coat shall be applied according to the manufacturer specification on container.	m^2	1					
3.22	Remove the existing tiles. Supply and lay new 300 x 300mm GN572/573 floor tiles through the entire building. Item includes grout and 65mm tile skirting with edging strip fitted.	m^2	1					
3.23	Prepare and paint exterior walls 2 coats weather guard, colour to match existing	m^2	1					
3.24	Prepare and paint Interior walls 2 coats weather guard, colour to match existing	m^2	1					
3.25	Prepare and paint floor with 2 coats weather guard, colour to match existing	m^2	1					
3.26	Prepare and spray paint wall -Two coats Dura 65 white. Two coats WEATHERGUARD,	m^2	1					
3.27	Prepare and Paint ceiling: Two coats DURA 65 WHITE, One coat PVA WHITE CODE M3701600.	m^2	1					
3.28	Removing of Old raised floor tiling	m^2	1					
3.29	Installing of new raised floor tiling to match existing tiling and supply of 3 tile lifter	m^2	1					
3.30	Supply and fit suspended ceiling Don shield T38 system Fissured type boards JVT 1200 x 600mm office, boardroom, kitchen	m^2	1					
3.31	Install cable entry plate	each	1					
3.32	Build 230mm face brick wall smooth key joints plaster	m^2	1					

	one side site or matching the existing structure							
3.33	Repair Cracked walls	m^2	1					
3.34	Brick up to match existing bricks, and Brick force to be supplied every 5 rows structure	m^2	1					
3.35	Install New window frame aluminium dark grey windows	m^2	1					
3.36	Remove existing broken window glass, supply and install new 4mm thick window glazing	m^2	1					
3.37	Supply and fit ALTIMATE window tinting 99% UV protection with 50.4% heat rejection.	m^2	1					
3.38	Remove old staircase railing and installation of similar one	m^2	1					
3.38	Strengthening of the existing staircase using the an approved method applicable to type of staircase	m^2	1					
3.39	Preparation and constructing a Gravel aggregate paving (Grey)	m^2	1					
3.40	Repair access road: Plant and machinery hire including operator. Rates to be priced for construction commencing at 07:00 to 17:00	m^2	1					
3.41	Plant establishment & de-establishment	Item	1					
3.42	TLB Hire	Day	1					
3.43	Tipper truck : 10 m^3 capacity	Day	1					
3.44	Motor grader (Cat 140G or similar)	Day	1					
3.45	Asphalt paver	Day	1					

3.46	3 Point Static wheel steel drum roller	Day	1					
3.47	9 Wheel Pneumatic roller (Cat CW19 or similar)	Day	1					
3.48	Water truck (18 000 litre)	Day	1					
3.49	Vibratory single drum roller (Bomag 212 or similar)	Day	1					
3.50	Excavator (Cat 215 or similar)	Day	1					
3.51	Pedestrian roller	Day	1					
3.52	Import G2 material from commercial source, laid and compacted in 150mm layers 95% MOD AASHTOO	M^3	1					
3.53	Import G4 material from commercial source, laid and compacted in 150mm layers 90% MOD AASHTOO	M^3	1					
3.54	Rip Insitu material 150mm deep, stabilize with 3% Portland cement and compact to at least 95% Mod AASHTO at optimum moisture content. Item excludes removing existing surface material complete and levelling the roadbed. The road width is 6m.	M^2	1					
3.55	PRIME COAT: Supply and Apply prime coat to base layer , MC-70 cut-back bitumen	M^2	1					
3.56	Supply and apply a tack coat SS 60 ; Stable Mix Stabilization Grade; Bitumen emulsion	M^2	1					
3.57	Supply a paver-layed continuously medium graded hot mix asphalt surfacing material; 40mm thickness; using 60/70 penetration grade bitumen ; compact to 95% Mod AASHTO. Supply a paver-layed continuously medium graded hot mix asphalt surfacing material; 40mm thickness; using 60/70 penetration grade bitumen ; compact to 95% Mod AASHTO.	M^2	11					

3.58	Remove old staircase railing and installation of new one aluminium or fibre glass	m^2	1					
3.59	Removal of Existing fence	m^2	1					
3.60	Supply of Clear view fencing	m^2	1					
3.61	Remove and install new pedestrian gate.	m^2	1					
3.62	Removal of car Existing gate	m^2	1					
3.63	Supply New or car Similar gate	m^2	1					
3.64	Install Gate motor and all necessary gate railing and support up to 500 kg of weight preferable D6	each	1					
4	**High Site Power Solutions**							
4.1	Upgrade 48V rectifier to the required load	each	1					
	Supply and fit SABS approved power skirting double bends Supply and fit white SABS approved power skirting socket outlets complete with covers and all wiring included	each	1					
	Supply and fit SABS approved 4Ft X 4 tube LED surface mount low brightness light fitting with aluminum diffuser and SABS approved LED lamps complete	each	1					
	Repair or replace electrical switches	each	1					
	Repairs / Replacing of the electrical wiring,	m	1					
	Install electrical connection to new equipment housing, Plugs, earthing, and including cabling	Per /conn	1					
	Removing and Installation of Generator change over switch	each	1					

	Installation of DB box with trip switches and commissioning of electrical works	each	1					
	Supply and fit SABS approved 4Ft X 4 tube LED surface mount low brightness light fitting with aluminum diffuser and SABS approved LED lamps complete		1					
	Supply of batteries refer to specification	each	1					
4.2	Installation of 48 Rectifiers 2000W	each	1					
4.3	shall supply and install 200mm X 60mm wire mesh cable tray with all hanging accessories completely	each	1					
4.4	supply and install a double door 96-way surface mount Distribution Board consisting off the following circuit breakers. 100 Amp X 3 Phase circuit breaker 6Ka 80 Amp X 3 Phase circuit breaker 6Ka 60 Amp Earth Leakage Relay with overload protection 3Ka X 20 Amp X 1 Phase circuit breaker 3Ka	each	1					
4.5	remove all existing lights	each	1					
4.6	remove all existing power skirting and plugs completely	m	1					
4.7	remove the existing light switch	each	1					
4.8	remove the existing air-conditioning completely	each	1					
4.9	remove all the existing heaters or aircons	each	1					

4.10	shall supply and install double Hammer tone Grey power skirting completely with all bends and end covers included.	m	1					
4.11	shall supply and install red dedicated socket outlets	each	1					
4.12	supply and install white socket outlets	each	1					
4.13	supply and install a new single lever light switches	each	1					
4.14	supply and install 20 Watt LED flood lights	each	1					
4.15	supply and install 50 Watt LED flood lights	each	1					
4.16	supply and install 200 Watt LED flood lights	each	1					
4.17	shall supply and install a day/night switch.	each	1					
4.18	Supply of Electrical Completion Certificates works for both electrical and air-condition	each	1					
5	**Air Conditioning Systems**							
5.1	Install 5000 BTU air conditioner	each	1					
	Install 6000 BTU air conditioner	each	1					
	Install 7000 BTU air conditioner	each	1					
	Install 8000 BTU air conditioner	each	1					
	Install 9000 BTU air conditioner	each	1					
	Install 14000 BTU air conditioner	each	1					

	Install 18000 BTU air conditioner	each	1					
	Install 24000 BTU air conditioner	each	1					
6	**Earthing Systems**							
6.1	Repair building earthing	each	1					
6.2	Installation of new earthing	each	1					
6.3	Remove and install new mast earthing	each	1					
6.4	Replace building earthing	each	1					
6.5	Testing of site and mast earthing	each	1					
7	**Support Structure**							
7.1	External Install cable tray from equipment housing to mast 0.3m x 0.1m x ?.?L	m	1					
7.2	Internal Install cable tray from equipment housing to mast 0.3m x 0.1m x ?.?L	m	1					
8	**Fire Suppression**							
8.1	**Central Control Equipment** - UL listed gas extinguishing control units compatible with NOVEC, Firetrace or other similar approved vendor complete with cabling required for the installation as per the tender drawings. Panels are to be equipped with all necessary indicator lights for various modes of operation and battery as per the supplier. Panels shall be equipped with the requisite yellow manual call point for manual system override and subsequent gas discharge.	each	1					
9	**Integration with other services** - voltage free interface module for integration with Mech/Elec	each	1					

	systems.							
9.1	Stainless steel 360° discharge nozzle - 500 psi (34.5 bar) - 50mm	each	1					
9.2	Stainless steel 360° discharge nozzle - 500 psi (34.5 bar) - 40mm	each	1					
9.3	Stainless steel 360° discharge nozzle - 500 psi (34.5 bar) - 32mm	each	1					
9.4	Stainless steel 360° discharge nozzle - 500 psi (34.5 bar) - 25mm	each	1					
9.5	Fire alarm - Electrically actuated gong	each	1					
9.6	Short circuit isolator	each	1					
9.7	25mm Galv. Conduit complete with draw boxes, junctions & fixings	m	1					
9.8	Piping as per specification document (black steel/galv. - sch.40) complete with pipe support (unistrut or other equivalent), refer to project spec	m	1					
10	**Field equipment and cabling accessories**							
10.1.	Category 5 - twisted pair cable for repeater panel networking	m	1					
10.2	Loop isolator (if equipment does not include isolator)	each	1					
10.3	Electric bell - gas rooms	each	1					
10.4	Sounder store - gas rooms	each	1					
10.5	Ph30 cable	m	1					

11	**NOVEC/ Clean Gas Agent**							
11.1	Cylinder 106L (x1), First Floor Server Room	kg	1					
11.2	Cylinder 343L (x3), Second Floor Equipment Room	kg	1					
11.3	NOVEC 1230 Extinguishing Agent (FILL)	kg	1					
12	**Central Control Equipment**							
12.1	Addressable 4-loop fire alarm control panel complete and including the following: backbox, door, lock, keys, power supply, loop control module, loop expansion module (if required), mounting chassis etc.	each	1					
12.2	Addressable fire alarm repeater panel complete and including the following: backbox, door, lock, keys, power supply, loop control module, loop expansion module (if required), mounting chassis etc.	each	1					
12.3	Network interface card	each	1					
12.4	SMS module for off-site notification (per panel)	each	1					
13	**Integration with other services** - voltage free interface module for integration with Mech/Elec systems	each	1					
14.	**Field Equipment**							
14.1	Smoke detector (standard ceiling-mounted)	each	1					
14.2	Ceiling void smoke detector (with indicator light at ceiling with cable conn.)	each	1					
14.3	Break glass unit - manual call point (red)	each	1					
14.4	Combined strobe & siren (wall mounted)	each	1					

14.5	Combined strobe & siren (ceiling mounted)	each	1					
14.6	Electrically actuated fire alarm bell / gong (kidde or other equivalent)	each	1					
14.7	Short circuit isolator	each	1					
14.8	25mm galv. Conduit complete with draw boxes & fixings (per elec eng.)	m	1					
14.9	Cabling as per specification document ***(PH 30 cable)***, refer to project spec.	m	1					
15	**Central Control Equipment and Field Equipment**							
15.1	VLF 250 - vesda laser detection chamber (as per spec)	1	1					
15.2	VLF 500 - vesda laser detection chamber (as per spec)	each	1					
15.3	VESDA piping (with drilled air sampling holes - size per eng.)	m	1					
15.4	VESDA piping across dampers (with drilled air sampling holes - size per eng.)	m	1					
15.5	Sprague flex conduit for ceiling sampling points	m	1					
15.6	Network interface card	each	1					
15.7	Zone diagrams and associated fire alarm panel signage	each	1					
16	**INTEGRATION WITH OTHER SERVICES**: Voltage free interface module for integration with mech/elec systems	each	1					
16.1	Mistro fire detection graphics software, including front end PC located in the First-floor National Operation Centre and to be linked to the Fire Panel.	each	1					

17.	**SABS approved hand held portable fire extinguishers installed on purpose made wooden back board complete with wall fixings, in accordance with reference drawings**							
17.1	4.5kg Dry Chemical Powder fire extinguisher	each	1					
17.2	9kg Dry Chemical Powder fire extinguisher	each	1					
17.3	5kg CO2 Fire extinguisher	each	1					
17.4	Installation cost of fire suppression system per room	m^2	1					
	Subtotal							
18	**Skills Development Goal (CSDG (0.5% factor of the sub-total)**							
	Subtotal							
19	**Enterprise Development**							
19.1	**Enterprise Development of Targeted Enterprise or JV partners**							
19.1.2	Needs Analysis and Enterprise Development plan per Targeted Enterprise		R5000,00					
19.1.2	Monitoring and Interim reporting per targeted enterprise		R20000,00					
19.1.3	Project Completion Report per Targeted Enterprise		R5000,00					
19.1.4	Enterprise development carried to the Final Summary		R 90 000,00					
	15% VAT							

	Tolal							
	Grand Total for 5 years (carried to Form of Offer and Acceptance)							

PART C3: SERVICE INFORMATION

Document reference	Title	No of pages
	This cover page	1
C3.1	*Service Information*	2-39
	Total number of pages	39

C3.1 Service Information

1 Description of the *service*

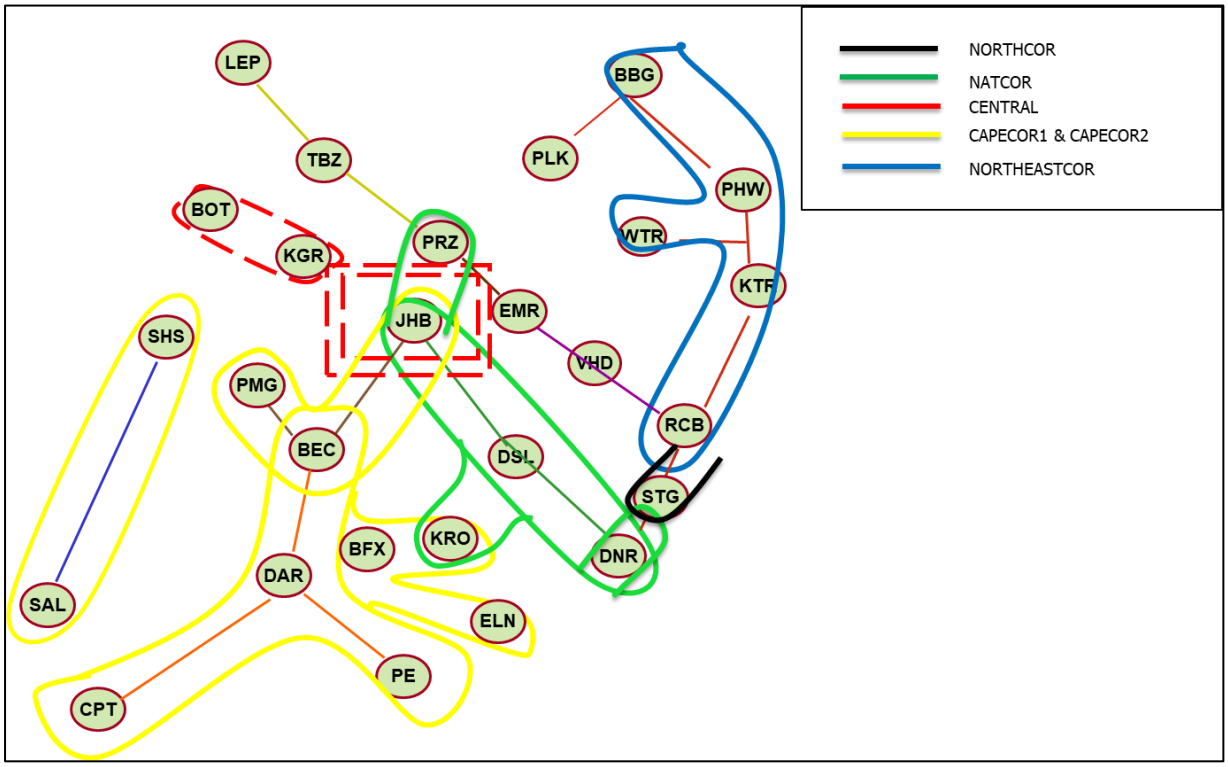
1.1 Executive overview

The service that the *Contractor* is to perform includes the refurbishment of High site (HS) , Relay Rooms (RR), and Comms Room (CM) buildings, and Access Road (AR) in Central, Eastern, And Western Regions which is broken down into six corridors of the Telecoms Building and any other work arising out of or incidental to the above or required of the *Contractor* for the proper completion of the *Service* in accordance with the true meaning and intent of the contract.

The *service* that the *Contractor* is to perform *involve* the following:

- Site clearance
- Roof sealing
- Roof insulation repairs
- Roof replacement
- Brickwork
- Batteries and Chargers
- Environmental alarms,
- Fire Suppression
- Safety door
- Steel Works (Cable Trays)
- Provision of Rocla shelter
- Provision and Installation of Container and Cabinets
- Ceiling installation
- Wall partitioning
- Minor and Major demolitions and removals
- Plumbing
- Tiling
- Plant and Materials
- Aluminium works (windows)
- Carpet installations
- Paint work
- Concrete *works*
- Electrical and Air-conditioning work
- Fencing and Electrical fencing
- Earthing
- Paving (layer works and surfacing)
- Installation of Carports
- Removal and laying of new kerbs and channel
- Line marking
- Wall building

BUILDING IN REGIONS



Central Region depots

- Vereeniging
- Durban
- Ladysmith
- Heidelberg
- Isando
- Polokwane
- Krugersdorp
- Koedoespoort

CIDB DUILD PROGRAM REQUIREMENTS

Standard for Developing skills through Infrastructure Contracts

The Contractor shall determine the CSDG, expressed in Rands, which shall not be less than the sub-total multiplied by a percentage (%) factor of 0,5 for General Building. The percentage (%) factor is stated in the Final Tender Summary section of C2.2 Pricing List**.**

Standard for Indirect Targeting for Enterprise Development through Construction works contract CIDB (Classes of Construction works General Building):

The objective of the project is to provide for a minimum contract participation goal (CPG) of 30% of the total project value and to develop targeted enterprises by the main or lead partner Contractors.

- Subcontract a minimum of 30% of the total project total value to targeted enterprises.
- Develop the tarted enterprise/s in two development areas as specified in the Standard, and agreed by both the Main Contractor and the targeted enterprise/s.
- Perform needs analysis on the targeted enterprise/s to identify development goals.

- Develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified development areas.
- Monitor and report on the progress of the agreed development areas with the targeted enterprise/s.
- Submit a project completion report to the Employers Representative for each targeted enterprise

1.2 Employers Objective

The Employer's current objective is to achieve completion of the above *service* as soon as possible whilst still maintaining the highest quality and safety standards.

1.3 Access to the Affected Property

1.3.1 *Employer*'s Site entry and security control, permits, and Site regulations

The work to be carried out is at the office buildings in the Central Region, Telecoms depots as stated in 1.1;and is in an access controlled area.

The areas are restricted and the *Contractor* must ensure compliance with the regulations of Transnet SOC Ltd in every way. The *Contractor* and any sub-*Contractor*s shall be required to apply for permission to enter the restricted area in writing. A list of workmen shall be given to the *Service Manager* to arrange for the necessary permits. 48 Hours minimum notice is necessary for the processing of these permits. This includes changes to staff during the contract period

The *Contractor* shall ensure the safe passage of traffic to and around the working areas at all times. This shall entail the provision of flagmen, protective barriers, lanterns, signs, etc. for protection, direction and control of traffic. No lights are to be fixed anywhere without written approval from the *Service Manager.*

In the event where nearby buildings, roads, or the area where the *Contractor* is working is being used by other Transnet employees, the *Contractor* shall organise the work to cause the least possible inconvenience to any operations at the various Transnet Freight Rail assets.

Access permits shall be made by the *Contractor* to a standard acceptable to the *Service Manager*, be allowed for within the *Contractor*'s access control provision 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

- Telephone number
- Fax number
- E-mail address

1.3.2 Restrictions to Access on Site, hours of work, conduct and records

The normal working hours are between 07:30 and 16:30 Mondays to Fridays. If it is required to work outside the stated normal working hours the *Contractor* must obtain written permission at least 48 hours before such work needs to be undertaken. Transnet will not unreasonably withhold permission; however, the *Contractor* may have to pay for Transnet's service management personnel, should this be required.

1.3.3 The *Contractor* complies with the following hours of work for his people (including Sub*Contractor*s) employed on the Site:

People restrictions on Site; hours of work, conduct and records:

The *Contractor* keeps daily records of his people engaged on the Site and Working Areas (including Sub*Contractor*s) with access to such daily records available for inspection by the *Service Manager* at all reasonable times.

Working hours are from 07:30 – 16:30 Mondays – Fridays.

1.4 Provisions

The *Contractor* provides Health and safety facilities on Site

The provision of security for the *Contractor's* site establishment shall be his own responsibility.

Both the "Factories, Machinery and Building work Act (Act 22 of 1941) and the "Machinery and Occupational Safety Act (Act 6 of 1983)" shall, wherever they appear in the SANS 1200 standardized specifications, be substituted by the "Occupational Health and Safety Act (Act 85 of 1993)".

1.4.1 Site services and facilities:

The *Contractor* shall make his own arrangements for the supply of services such as electricity, potable water, ablutions, fire protection, lighting and all other services required for undertaking the service. The *Contractor* shall provide, maintain, and finally remove proper portable latrines of sufficient number at his cost. Latrines shall be properly constructed and placed in suitable positions and maintained in a clean and sanitary working condition.

Where any of the above services can be made available by the *Employer*, the cost of meters, connections, reticulation, and all other usage costs associated with the provision of services shall be to the *Contractor's* account.

The applicable tariffs will be those that the Local Authority charges Transnet and these charges shall be applicable to the *Contractor*.

1.4.2 The *Employer* provides the following facilities for the *Contractor*:

A Suitable construction site will be made available free of charge to the *Contractor* for the duration of the contract.

The site shall be clearly sign posted as being a construction site and shall be compliant with the relevant prevailing safety regulations and restrictions that might be in place until the *Contractor* has de-established from site and has been approved by the *Service Manager* or his duly appointed representative.

The layout of any construction site, if required, shall be submitted to the *Service Manager* for his approval before the *Contractor* starts erecting his camp.

1.4.3 Wherever the *Employer* provides facilities (including, *inter alia*, temporary power, water, waste disposal, telecommunications etc.) for the *Contractor's* use within the Working Areas and the *Contractor* adapts such facilities for use, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

1.4.4 Facilities provided by the *Contractor:*

The *Contractor* shall make his own arrangements for the accommodation of all labour and comply with the requirements of the respective authorities.

No accommodation for the *Contractor's* and/or *sub-Contractor's* employees will be available on site. No employee, with the exception of security watchmen, may, without written approval from the *Employer's* Representative, be accommodated on site.

The *Contractor* shall, at his own expense, provide for security and access to his construction sites as he may require. Control of access for construction plant onto public roads shall be in accordance with the requirements of the relevant roads authority and *Service Manager*.

No liability will be accepted by Transnet for the safekeeping of the *Contractor*'s materials/equipment/plant. The *Contractor* will not be required to provide any facilities for the use of the *Service Manager*.

1.4.5 Wherever the *Contractor* provides facilities (either his own or for the *Service Manager*) 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.

1.4.6 Unless expressly stated as a responsibility of the *Employer* , Site services and facilities, all residual requirements for the provision of facilities and all items of Equipment necessary for the *Contractor* to Provide the *Service* remains the responsibility of the *Contractor*.

1.4.7 Existing premises, inspection of adjoining properties and checking work of Others

The *Contractor* and the *Service Manager* will inspect the immediate surroundings and record any damage before work is started.

The *Contractor* shall ensure that no damage occurs to adjoining property.

The *Contractor* shall negotiate with the property owner(s) for permission to work on their land for the purpose of carrying out the work (if necessary).

The *Contractor* shall ensure that his workmen do not abuse any permissions granted by adjoining property owners allowing them on to their property for the execution of the work.

1.4.8 Underground services, other existing services, cable and pipe trenches and covers

The *Contractor* is required to liaise with the *Service 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. No services drawings are to be supplied.

All existing services shall at all times be protected and/or barricaded where these maybe affected by the Service or where these may endanger the safety of personnel.

Any pipe, cable, conduit or other services of any nature whatsoever indicated to the *Contractor* and subsequently damaged as a result of the *Contractor*'s operations, shall be repaired and reinstated forthwith by the *Contractor* or by the Authority concerned, all at the expense of the *Contractor* and to the satisfaction of the *Service Manager*.

Whenever unknown services are encountered which interfere with the execution of the Service and which require to be moved and relocated, the *Contractor* shall advise the *Service Manager,* in writing within 24 hours of such encounter, and the *Service Manager* will determine the extent of the work, if any, to be undertaken by the relevant authority or the *Contractor* in removing, relocating and reinstating such services. Should know services be damaged by construction, the cost of repairs will be for the *Contractor*s account.

Where the *Contractor* damages a service due to negligence, he shall bear full cost of repairs to the service. These repairs will be carried out by the relevant authority, or at their discretion, by the *Contractor* to the satisfaction of the relevant authority.

1.4.9 Control of noise, dust, water and waste

Equipment used on site shall be properly muffled and maintained so as to reduce noise generation to the minimum. Working procedures shall be structured so as to avoid the unnecessary generation of noise, dust and pollution of water.

1.4.10 The *Contractor* complies with the following:

Dust has been identified as having a serious environmental impact. The *Contractor* is required to prevent the creation of dust.

The *Contractor* shall ensure that no dust is generated during the mixing process of construction materials used during any stage of the construction process.

The *Contractor* shall, at all times, comply with the statutes that prohibit pollution of any kind. These statutes are enacted in the following legislation:

•National Environmental Management (Act 107 of 1998); and

•The Environmental conservation Act, 73/1989; and

• The National Water Act, 36/1998

The *Contractor* shall appoint a responsible person to ensure that no incident shall occur on site that could cause pollution. Where the *Contractor* was negligent and caused any form of pollution the damage shall be rectified at the *Contractor*'s cost.

1.4.11 Giving notice of work to be covered up

The *Contractor* shall give 24 hours' notice to the *Service Manager* before covering any work.

1.4.12 The *Contractor* notifies the *Service Manager* (prior) of the following elements of the *service* which are to be covered up:

- Backfilling of trenches for foundations
- Backfilling on any excavated material
- Pouring of concrete
- Applying any surfacing material to finished surfaces e.g. paving, tar etc.
- And any other *service* that require inspections by the *Service Manager* before being covered up

1.4.13 Sequences of construction or installation

The *Contractor* is to sequence the service to suite his Service plan requirements.

1.4.14 Restoring of work site

The *Contractor* shall keep the site tidy at all times and remove all old material such as rubble, off-cuts, demolished material, surplus material and carry away and dump or store onto or at an approved site.

A permit must be obtained from the Municipalities to transport material on their roads, when required.

On completion of the *Service*, the *Contractor* shall clear the site of all leftover items of material, rubble, etc. to the satisfaction of the *Service Manager.*

The site must be cleaned and cleared of all facilities and released material within 72 hours after completion of all the work that will form part of the final handing over.

1.5 Tests and inspections before and during the Provision of the Service as per Service Information

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 Service including the work listed below which is to be done before the Completion Date and in any case before the dates stated. *The Service Manager* cannot certify Completion until all the services listed below has been done and is also free of Defects, which would have, in his opinion, prevented the *Employer* from using the *works* and others from doing their work.

1.5.1 The *Contractor* ensures that the documentation as described in the *Service* Information is presented to the *Service Manager* before Completion.

1.5.2 The *Contractor* ensures that the *Service Manager* has a full and accurate dossier of As-built documents that represent the status of the completed *service* (to include Plant within the *service*) to present to the *Employer*.

1.5.3 Where the *Contractor* has presented to the *Service Manager* at take-over, the *Contractor* modifies and updates As-built documents as necessary prior to Completion.

1.5.4 Access given by the *Employer* for correction of Defects

The *Service Manager* arranges for the *Employer* to allow the *Contractor* access to and use of part of the service which he has taken over if they are needed for correcting a Defect. In this case the defect correction period begins when the necessary access and use have been provided.

2 ENGINEERING AND DESIGN

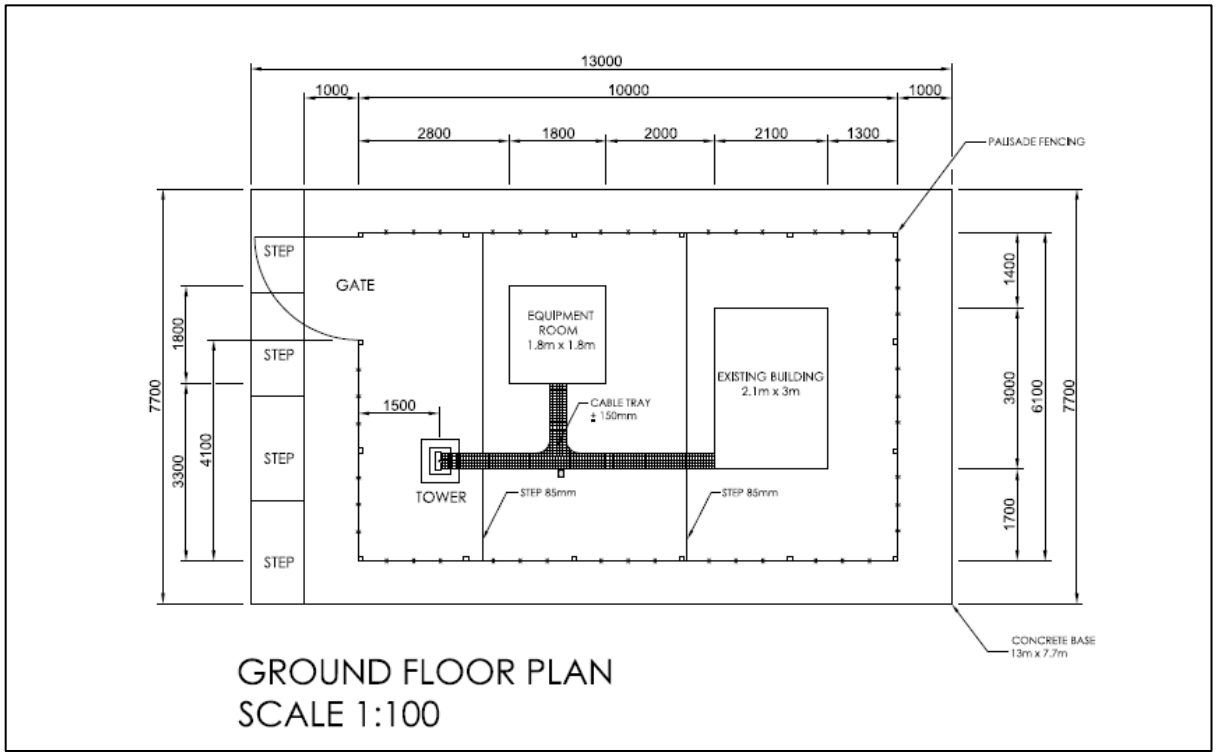
2.1 *Contractor's* Design

2.1.1 The *Service Manager's* design for the service is:

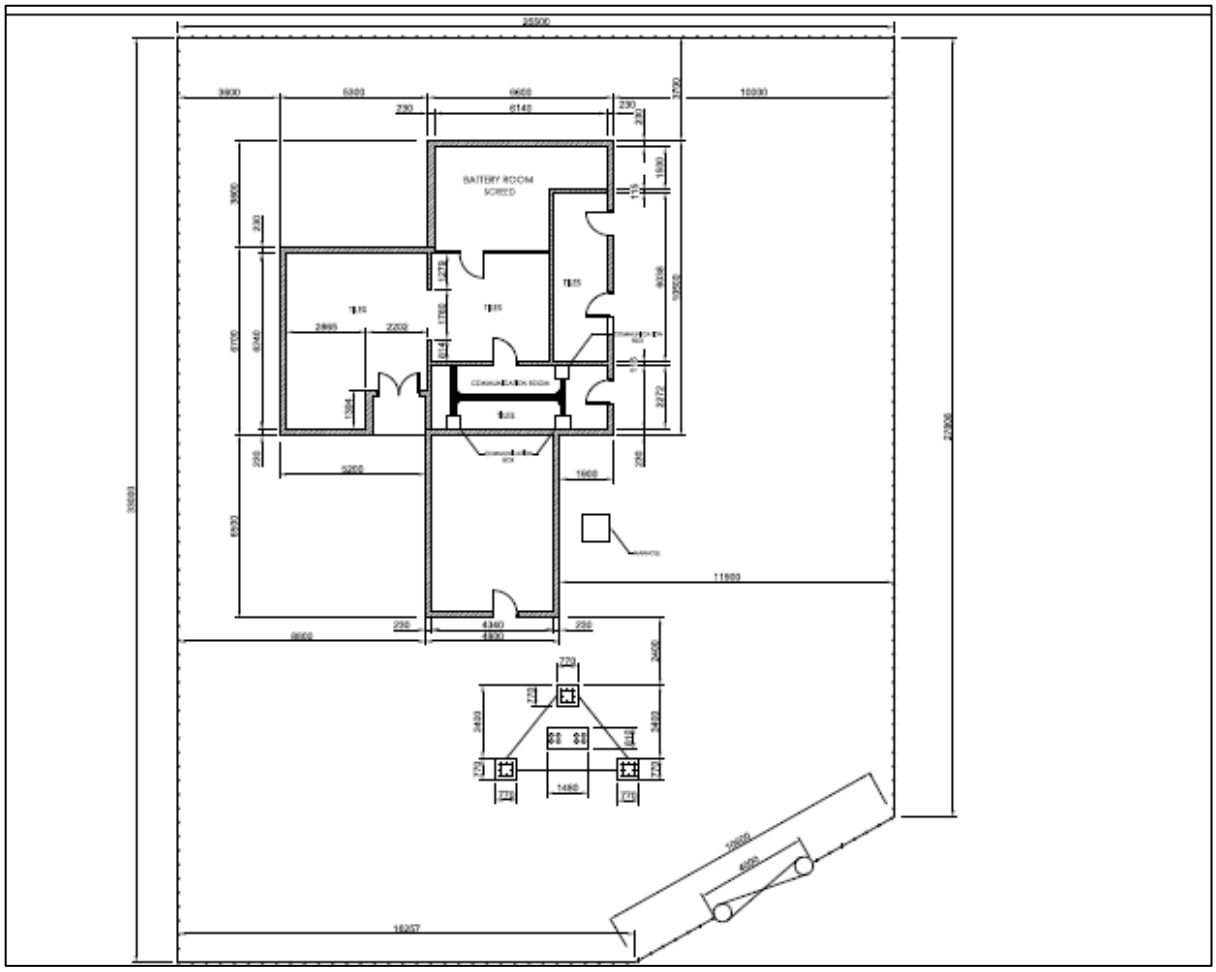
The following items are normally priced as Preliminaries in a Price List:

- Site staffing(Project Team) : CV's and Qualifications to be submitted with Method statement
  - Site Agent(with a minimum 5 Years Experience : National Diploma qualification Civil Engineering/Built Environment relevant Qualification)
  - Site Supervisor (1-4 Years Experience : National Diploma qualification Civil Engineering/Built Environment relevant Qualification)
  - Foreman (with Minimum 5 Years Supervisory role in Built Environment)
  - Artisan (Electrical with RedSeal certification)
  - Artisan (Plumber/Carpenter/Brick layer) with N6 qualification in relevant field
  - Electrical Engineering L/C Telecommunication B Tech or Equivalent 3 years' experience.
- Cleaning site and clearing rubbish
- Site transport service
- Mechanical plant
- Site accommodation
- Small plant
- Temporary services
- Public services
- Welfare and safety provisions
- Setting out of works
- Samples and testing
- Insurances etc.
- Site Storage
  - 6m long storage containers x1
  - Site Office con container (6m)
  - Insulated site office container (6m)
  - Insulated air conditioned site office container
  - Site toilet (flushable) – 2 services per month [male x1 ; female x1]

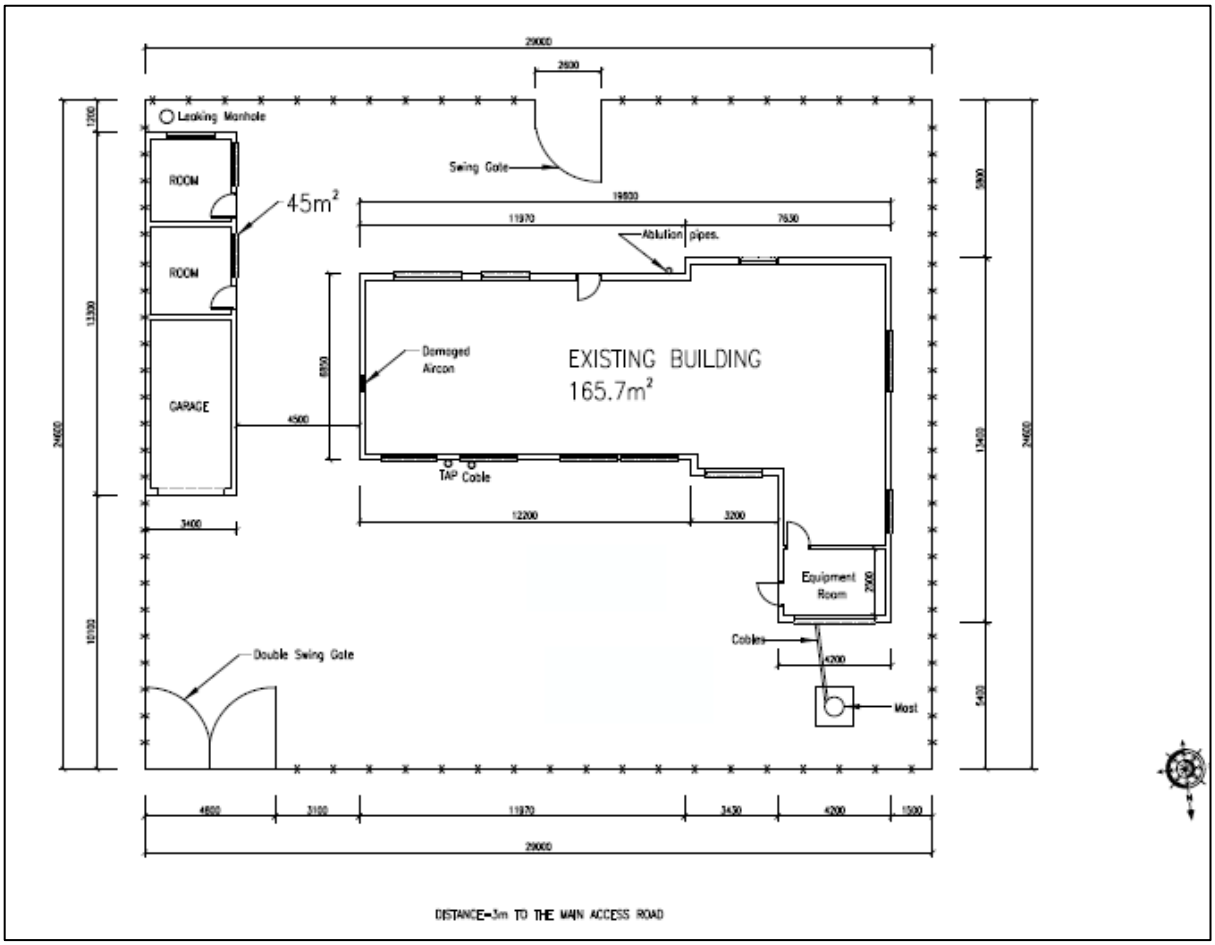
LAYOUT FOR BUILDING 1:



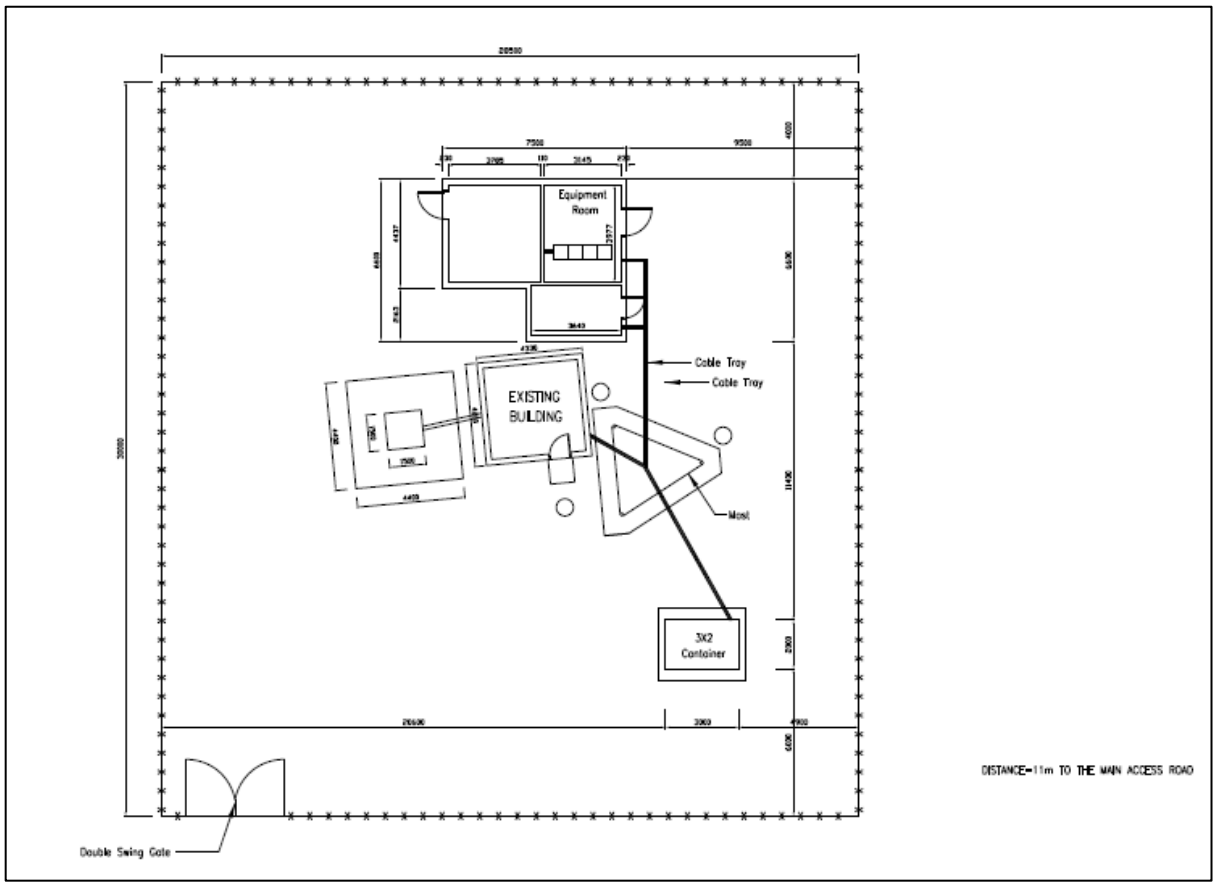
Existing Layout Thornhill Eastern Region



Existing Layout Port Shepstone Central Region



Existing Layout Bethal Eastern Region



Existing Layout Kapokberg Western Region

ALTERATIONS

SITE VISIT: — Tenderers are advised to visit the site prior to tendering and satisfy themselves as to the nature and extent of the work to be done, also to examine the condition of all existing buildings as no claim will be entertained on the grounds of ignorance of the conditions under which the work was to be executed.

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Unless otherwise described no materials from the alterations shall be re-used in any new work without the written approval of the *Service Manager.*
In taking down and removing existing work, particular care must be taken to avoid any structural or other damage to the remaining portions of the buildings.

BRICK WORK AND DEMOLITION WORK
Work description: Demolition of 230mm/115mm thick, brick wall and Partition walls.
All demolishing work shall comply with SANS 10400. Remove or protect all furniture and equipment. The demolition of wall and removal of rubble from site shall be done without affecting the safety, health and convenience of the people working in the building, or the public. No work shall, at any time, during the course of or after the demolition of walls, be left in a condition dangerous to the people using the building, public or any adjoining property. Remove all rubble from site to an approved dumping site.

DRYWALL PARTITIONS:

PARTITIONS:

These are to be of an approved system of standard construction, with an average sound rating of not less than 30 decibels taken over the whole face area.
Framing is to be natural finish anodised aluminium comprising posts at 1200mm centres unless otherwise described, with transom rails where specified, fitted between the posts, a rail against ceiling and an aluminium standard skirting on each side at base, all neatly and securely fixed together.
Provision is to be made at the base of the partitions and in the ceiling rails and posts for electrical wiring, which will be installed under the electrical service requirements, and the ceiling tails and end posts are to be fitted with continuous removable access plates.
Solid panelling is to be approved solid chip core panels of the thickness specified faced on both sides as described in the items.
Glazed panels are to be glazed as required, complete with all necessary natural finish anodised aluminium glazing beads and vinyl glazing strips.
Louver panels where specified are to be approved natural finish anodised aluminium
adjustable louver sets each comprising head and sill weather bars and two jamb strips each fitted with louver brackets with spring loaded clips for and fitted with and including louvers as required and complete with tilt bars and operating lever handles. Where the openings are not the correct size to suit a full number of standard width louver blades, an alternate head weather bar must be provided to suit a fixed louver blade of the required width. The louver sets are to be fitted with the jamb strips positioned horizontally so that the louvers will be fixed vertically.
Partitions are to be in 1200mm modules, unless otherwise specified, except at ends where the odd lengths are to be made up by a narrow width at one end of the partition.
Ends of partitions against walls, window frames, etc. and the top edge of partitions against ceilings are to be fitted on both sides of partition with approved vinyl scribing sections fitted between the structure and the end post or top rail of the partition.
Plain openings are to have aluminium frames similar to door openings neatly fitted into the framing.
Doors are to be solid laminated flush doors complying with SANS Specification 545. The doors are to be finished on both sides with veneer as described in the items and concealed on both stiles with matching hardwood edge strips.
Where doors are described as having observation openings, these openings are to be of the sizes stated, glazed as specified with all edges bedded in approved neoprene gaskets and fixed with 10 x 25mm wrot matching hardwood rebated glazing beads mitred round and bradded to both sides.
Rates for doors are to include for all necessary additional aluminium framing to form door openings, and for hanging the doors on and including one and a half pairs of 102mm satin chrome finish brass hinges to each door.
All locks to doors in demountable partitions are to be supplied with two keys, and are to be controlled by the same master key as the mortise locks used elsewhere in the Contract when specified.
Unless otherwise specified all veneered solid panelling and doors are to be finished as follows: —
Prepare, stop with tinted stopping, apply an approved stain as necessary to achieve uniform colour appearance, and three coats of approved clear matt polyurethane finish including burnishing with steel wool between coats.
Rates for demountable partitions are to include for supplying, assembling, erecting, finishing, glazing and fixing complete between finished surfaces of concrete floors, plastered walls and ceilings, and all in accordance with the manufacturer's instructions.

Studs

50mm x 33.5mm x 0.5mm thick drywall galvanised steel studs are used. The studs to receive aluminium extrusions clipped onto both sides of the stud. Framing to be securely fixed to walls, floor and ceilings where necessary. Stud connectors to be used to join horizontal studs to vertical studs.

Floor Track

52mm x 25mm x0.6mm galvanised sheet steel track to be used.
Panels
12,7mm thick tapered edged gypsum plasterboard panels used and decorated in situ with
panels secured to either side of framework.
Patient care areas to be 12mm Supa Wood panels in framework as specified.

Construction

Internal walls are constructed by fixing drywall studs to floor track @ 600mm c/c. Wall and ceiling junctions are formed by fixing 84mm x 19mm aluminium ceiling and wall channel to wall or ceiling. The floor track is then fixed into this; alternatively, these components may be fixed simultaneously. The studs are then fixed to floor.
The partitions, unless otherwise described are to be 75mm thick and covered both sides with 12,7mm thick tapered edged gypsum board in 1200mm widths to height specified.
The gypsum boards are screwed @ +/- 300mm c/c at all intersections to the floor and head wall tracks and vertical studs.
Using self-drilling, self-tapping, rust proofed countersunk screws, with screw heads and joints between boards and between abutting edges of boards flushed up with an approved
jointing material.

Exposed Aluminium Framing

Door frames, glazing termination and ceiling and wall channels to be natural anodised aluminium. 25 x 25 x 1.5 aluminium angle stuck to external corners of partitioning. 80mm high aluminium skirting glued in position.

Glazing

Aluminium glazing section is clipped onto the flanged end of the stud around the glazing perimeter. The glazing section has a recess to accept a rectangular clip-in glazing bead which enables 3mm-8mm thick glass to be received in the system. The glass is retained with various sizes of PVC glazing gasket.

Termination

Openings for louver frames, sliding doors and windows, serving hatches and partition ends are to be lined with the aluminium termination section.

Skirting

The system is designed to accept recessed base, female, 60mm high aluminium skirting.

Sound Insulation

75mm Fibreglass Cavity Bat with a 35g glass tissue or 75mm Isotherm "Acoustisorb' mineral wool blanket is to be installed between studding before fixing final outer panel.

ALL CONCRETE WORK AND PAVING

Cast concrete to be 15 Mpa and place on all areas requiring concrete. After the concrete has been placed, all exposed surfaces shall be kept continuously damp for at least 7 days covered with plastic sheeting or covered by sand.
Concrete shall have 15 Mpa compressive strength unless, otherwise specified.
Movement joints shall be included and cut straight and neat.

Prescribed mix concrete

Where prescribed mix concrete is specified the proportions of constituents, the maximum size of coarse aggregate and the estimated minimum compressive strength shall be as specified in the following table:

Class of Concrete	Estimated minimum compressive strength in MPa at 28 days	Maximum nominal size of coarse aggregate in mm	Proportions of Constituents		
			Cement (Parts)	Fine aggregate (Parts)	Coarse aggregate (Parts)
A	7	37,5	1	4	8
B	15	19	1	3	5
C	20	19	1	2,5	3,5

Cement shall comply with SANS 50917-1 of strength 32,5N or higher. Should cement and aggregates be mixed by volume, the contents of a 50kg sack of cement shall be taken to be 0,033m^3 . Notwithstanding the requirements contained in SANS 1200G, the Principal Agent may permit certain items of non-structural concrete to be mixed by hand . If the concrete is mixed by hand, it shall first be mixed in a dry state on a clean non-absorbent surface until it is of uniform colour and consistency. Just enough water shall then be added to permit mixing and working, at which stage the concrete shall continue to be mixed until it is of uniform colour and consistency

Strength concrete

Where strength concrete is specified it shall be designated by its specified strength followed by the size of stone used in its manufacture, eg 30 MPa/19mm

The water/cement ratio shall be as Table 5 of clause 5.5.1.5 for moderate exposure conditions

"No-Fines" concrete

"No-fines" concrete shall consist of one part cement to eight parts aggregate graded from minimum 6mm to maximum 13mm size

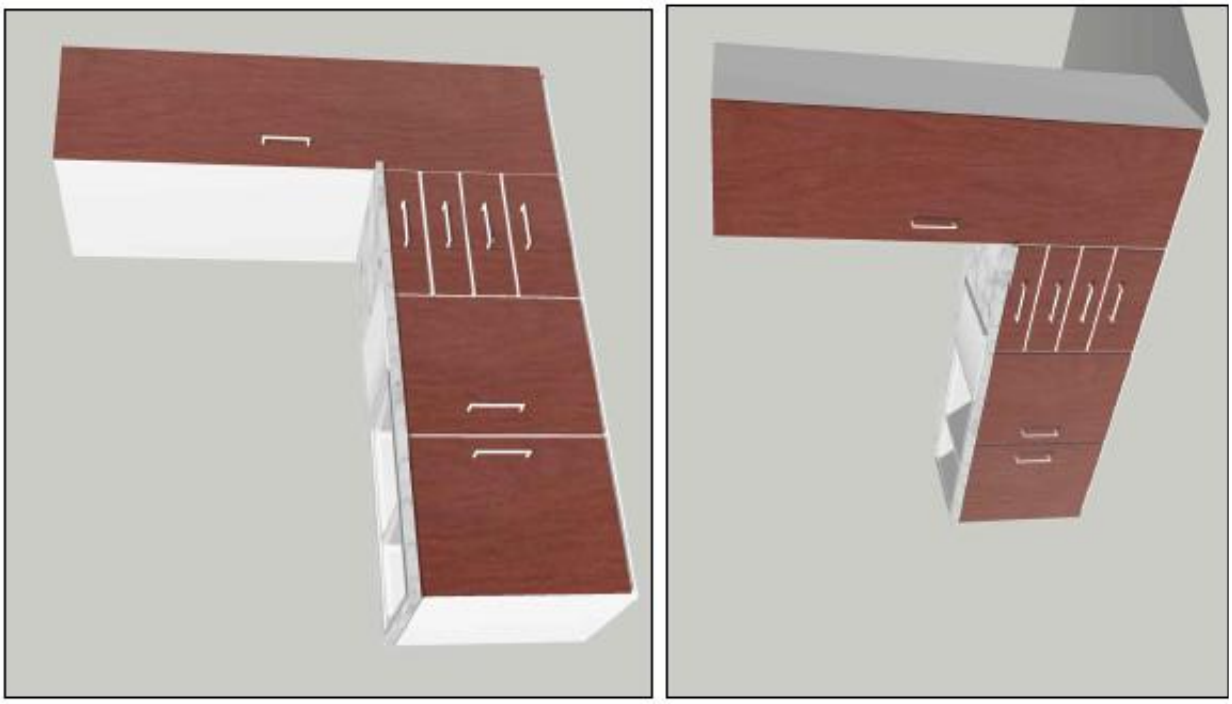
The quantity of water used shall be just sufficient to form a smooth grout which shall completely coat every particle of aggregate and also to ensure that the grout is just wet enough to form a small fillet at each point of contact between the stones. "No-fines" concrete mixed with excessive water, which results in a thin grout, which drops off the aggregate, will be rejected

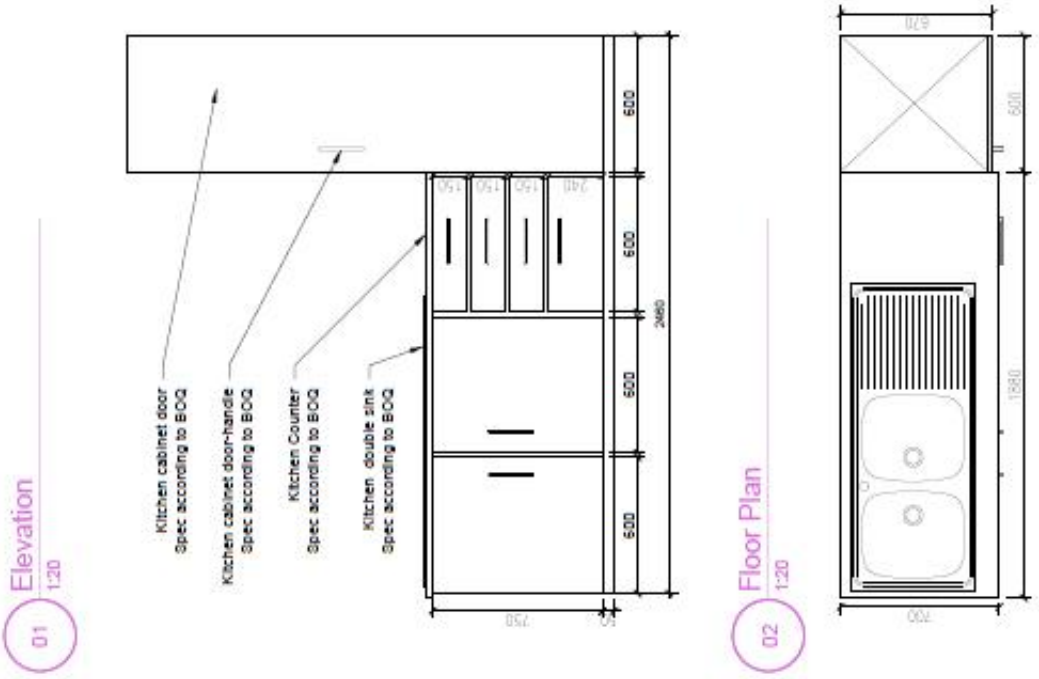
"No-fines" concrete shall be placed in its final position within 20 minutes of mixing and shall be placed in continuous horizontal layers. Concrete shall be spade worked sufficiently to ensure that it fills the forms but vibrating, tamping or ramming will not be permitted

Ready-mixed concrete

The use of ready-mixed concrete and the acceptability of test results from a central concrete production facility shall be subject to the written approval of the

KITCHEN CUPBOARDS LAYOUT




Elevation
1:20
01
Kitchen cabinet door
Spec according to BOQ
Kitchen cabinet door-handle
Spec according to BOQ
Kitchen Counter
Spec according to BOQ
Kitchen double sink
Spec according to BOQ
600
600
600
600
2400
Floor Plan
1:20
02

ALL PAVING BRICKS:

Bricks shall be laid in accordance with the Paving Bricks manual as supplied by the Concrete Masonry Association; correctly graded sand to be used for bedding and jointing. Bricks are to be lightly compacted before jointing sand is applied.
Excess jointing sand shall be swept away and removed. Any areas showing signs of "sagging" or "kicking" shall be re-laid. No "ponding" will be allowed. Pavers used are to be free of any defects, cracks or breakages. Paving shall be provided with a 50mm cross fall taken from centre line of parking area to edge (towards the front end). The *Contractor* will be responsible to remove all rubble and excess material from site.
Break out the existing 100mm concrete slab complete; prepare and level the ground prior to brick paving. Item includes digging, levelling and compaction of ground to 93% Mod AASHTO prior to laying of bricks.

Supply and lay new cement paving interlocking bricks complete with bedding sand; bricks shall be 60mm thick and 25 Mpa strength. Item includes clearing and compaction of ground. The final level for the bricks shall match the existing surface level in areas where there is existing paving.

A Class 25 MPA Grey interlocking Concrete Pavers is to be used. Thickness to be 60mm. Bricks to have a chamfer on all edges.
BEDDING SAND: Bedding sand shall be free from solids and substances that may be deleterious to blocks.

FLOOR/ WALL TILES
Work description: Remove existing floor/wall tiles and clean floor
Remove tiles completely and remove all rubble from site.

DIGITAL RADIO HOUSING ROCLA OR WATERPROOF CABINETS

SUPPLY AND INSTALL ROCLA AND WATERPROOF CABINETS REFER TO THE SPECIFICATION SUPPLIED

LAYING OF TILES
Thoroughly clean surfaces before any tiling commences. Smooth or painted surfaces must be chipped to 80% of area. KEY IT from TAL or TYLON must be applied over whole area. Tiles shall be even in shape and size, free from cracks, twists or blemishes and uniform in colour. The adhesive shall be Tylon adhesive for porcelain tiles. The use of any other type shall only be allowed if approved by the after adhesive was tested on site. Joints shall be straight, continuous with 5mm widths and pointed with waterproofing grout compound from TAL, Tylon or approved type. Symmetrical arrangement of tiling with cutting along both sides of panels to avoid cutting of tiles smaller than 75mm wide shall be done. Cutting and fitting of tiles against walls and around doorframes, sanitary fittings, etc. must be neat, with a gap between 4 and 6mm. Tile shall be level to each other at joints. Replace one broken or cracked floor tile between existing tiles. Use notched trowel to apply adhesive 10mm X 10mm notches at 6mm intervals.
All excess adhesive shall be removed from joints before drying has occurred. Tiles must be dry before being bedded. Tap tiles level with a rubber mallet. All tiles shall have 100% contact with adhesive; make sure there are no voids. Any tiles that sound hollow, if tapped, shall be removed. Allow the adhesive to cure for 2 to 3 days before grouting. Use only approved grout, mix grout with Tylon or Tal Bond-it in areas specified. Fill joints to lower edge of level and not level with the top of the tile.
When laying porcelain tiles, the key coat must be 100% dry if not chemical reaction between key coat and porcelain tile adhesive will prevent adhesive from drying. Do not use acids, spirits of salts, ammonia, other strong chemicals or steel wool to clean tiles.
Work description: Supply and fit heavy duty aluminium L strip at door entrance
Provide tile edge trim to conceal raw tile edges. Use right size trim for tile. Cut strips into correct length allowing neat mitres joints for corners. Bed tile edge trim firmly into adhesive so that adhesive penetrates the cut out section. Place tiles on top making sure they flush with the leading edge of the tile edge trim. Proceed with grouting as recommended by the manufacturer. All section shall be one long straight length. No joints of sections shall be allowed.

DOORS, WINDOWS, AND LOCKS

Work description: Fit 3 lever mortice locks with handles to new doors, unless otherwise specified.
Mortice locks and mortice lock furniture shall comply with (SANS standards) and shall have SANS mark on each lock. Each lock shall have two keys and lock shall not have interchangeable keys. Lock and handles must fit precise and shall be straight and parallel to door. Locks and handles shall be fixed with the right type of screw for the type of lock.

Work description: Install new vertical blinds
For recess fixed blinds the clearance between the bottom of blinds and window sill shall be 10 mm. For face fix blinds the blinds shall cover the window with plus 150 mm on each side of window where possible, the top of the blind shall be 100 mm above the lintel and the bottom of the blinds shall be 150 mm below the windowsill. Rails to be fit with quick snap–out clamps spaced not more than 900mm apart.

PAINTING

PAINT PLASTERED WALLS

Work description: Prepare smooth plaster walls for painting.
Wash wall thoroughly with hot water and sugar soap in order to remove any traces of dust, fat, oil and any other dirt. Preparation of walls shall include opening all fine cracks with sharp object, the filling of cracks and all holes in wall with the appropriate filler or patching plaster, depending on the size of the cracks or holes. The areas under repair must be sanded down to a smooth, even finish. Brush down the surface removing all loose particles and dust ensuring that the surface is sound. No sweeping or dusting shall be done after the wall had been prepared for painting, while painting is in progress or while paint is still wet.

TREAT FACE BRICK WALLS

Work description: Prepare all exterior and interior walls complete and apply D121-0846 brick dressing according to manufacturer's specifications.
Over coating time shall be done as specified by the manufacturer. All surfaces not being painted such as sills, floors, joinery work and the like must be covered up and protected against spotting before any painting commences.
No sweeping or dusting shall be done while painting is in progress or while paint is still wet (interior walls).
No painting shall take place during wet weather or when too windy (exterior walls).

BRICK WORK

The procedure begins with ensuring a solid, level foundation, followed by careful laying of M6 blocks or bricks. The recommended mortar mixture for M6 blocks and bricks typically follows a 1:3 ratio of cement to sand and cement strength to be used is 42,5 MPa. Brickforce, which is a steel reinforcement mesh, should be incorporated every second course of bricks or blocks to enhance the structure's strength and prevent cracking. It is crucial to ensure that brickforce is placed in horizontal mortar joints, aligned with the building's design, and is correctly bonded to the masonry. Adhering to SANS standards, such as SANS 10400 for building regulations, guarantees that the structure meets the necessary safety and quality requirements, including load-bearing capacity and durability under local conditions. Proper curing of the mortar and accurate alignment during the building process are also essential to ensure a long-lasting, stable construction.

DOORS AND FRAMES

Previously painted doors: Wash thoroughly with a suitable detergent to remove all dirt and rinse with clean water. Remove defective paint/varnish and repair all holes and defective places with a suitable wood filler. Remove handle, Sand complete door and wipe off all sanding dust with a damp cloth. Allow to dry and apply one coat universal undercoat and two coat finishing paint as per work list. Let dry re fit handles.

New doors to be painted: Remove locks and handles. Sand smooth and wipe sanding dust off with damp cloth. Allow to dry and apply one coat wood primer, one coat universal undercoat and two coats finishing paint as per work list. Allow paint to dry between coats as per specification.
Re-fit the locks and handles after the paint has dried out.

CEILING AREA FOR PAINTING (RHINO BOARD).
Wash ceiling thoroughly with hot water and sugar soap in order to remove any traces of dust, fat, oil and any other dirt. Preparation of ceilings shall include the driving in of all proud standing nails at rhino board ceilings or opening of all fine cracks with a sharp object, the filling of cracks and all small holes in ceiling with appropriate filler.
The areas under repair must be sanded down to a smooth, even finish. Brush down the surface, removing all loose particles and dust ensuring that the surface is sound. Sand down existing paint on ceilings to provide bond for new paint. After sanding, wipe ceiling thoroughly with clean damp cloth to remove sanding dust. Let ceiling dry completely before any paint is applied. No sweeping or dusting shall be done after the ceiling has been prepared for painting or while painting is in progress or while paint is still wet.

WINDOW FRAMES AND BURGLAR BARS
Work description: Paint window frames complete.
Clean window frames from rust, existing paint and dirt by scraping or by means of steel wire brush. Sand frame complete and wipe off all sanding dust to obtain a perfectly clean surface. Prime all exposed metal surfaces with an approved metal primer. Apply one coat universal undercoat and two coats water-base Dulux high gloss enamel. After painting window-openings, sections shall open and close easily. All Window handles, peg stays and sliding stays shall be removed to paint window The Window handles, peg stays and sliding stays shall be removed, cleaned and re-fitted. *Contractor* shall be responsible for any lost window fittings.
Prepare steel burglar bars for painting: Sand down existing paint to provide bonding for new paint.

Apply painting as specified on the list of material.

PLUMBING

Work description: Toilet pan and cistern remove complete

Work description: Fit toilet complete, include WC pan, cistern 9l, and angle valve, flexi connector and toilet seat. Pedestal water closet pans shall be of the wash down type, approximately 400 mm high, of white glazed fire clay or vitreous china, complying with the requirements of SABS Specification 497. The pans shall have "P" traps with straight outlets or right or left hand side outlets, as required. Pans shall be bedded onto the floors in 3:1 cement mortar. Pan shall be level and parallel with wall next to Pan. Installation of the cistern shall be done in accordance with the relevant manufacturer's instructions. Use approved porcelain low-level cistern that complies with the requirements of SABS Specification 821, and complies with the requirements of SABS Specification 497. Low level cisterns shall be of the valve less siphon type or of the flushing valve type, each with body and removable cover – NB: Flush pipes to flushing cisterns shall have an internal diameter of not less than 34 mm. Install Cobra brand angle valve with chrome plated or braided flex connector, any other brand make shall first be approved by . The pan shall be fitted with approved solid plastic double flap seats having closed fronts of size and shape, required to fit the pan. Fix to pan with non-ferrous metal fixing bolts or plastic bolts.

Work description: Install/replace wash hand basin, 2 taps, connecter, outlet and rubber trap.
Wash hand basins white porcelain/glazed ceramic and shall comply with (SABS 497). Pillar taps shall be chromium plated brass and of heavy pattern Cobra brand and shall comply with (SABS 226). Taps for hot water shall be marked with red coloured plastic inserts and fixed on the left hand side of all basins, sinks, showers, etc. Taps for cold water with green/blue plastic inserts on the right hand side. Waste outlet shall be chromium plated brass with plug, chain and of Cobra brand and shall comply with (SABS 226). Rubber trap shall comply with (SABS 1321). Installation of basin, taps, waste outlet and trap shall be done in accordance with the relevant manufacturer's instructions. Basin shall be fixed with silicone layer between basin and wall. Basin shall be level and shall be 800mm from finished floor level to top front section of basin if no pedestal basin is specified.

Work description: Install shower door (pivot doors).

Supply and install pivot shower door type approved by . Install according to the manufacture's specifications.

Mirrors
Work description: Fit new mirror
Mirrors shall comply with the requirements of SANS Specification 1236, Class A. Unframed mirrors shall have polished edges (Bevelled edges are not permitted). Provide mirror where shown or mentioned, size as specified in work list, side shall be rounded and polished edge silvered plate glass. Each mirror to be drilled four (4) times and countersunk screwed to plugs in wall with 38 mm long screws, fitted with domed chromium-plated cups. Provide at each fixing point.

CEILINGS
Work description: Replace rhino board ceiling complete, exclude brandering.
The ceiling boards must always be fixed with the length of the board at right angles to the brandering. Rhino board is fixed with the ivory side facing down. Board shall be in long lengths, symmetrically arranged. Ceiling boards shall be secure at 150mm centres with 38mm galvanized clout-headed nails. The nails shall be driven into the board with the nail heads flush with the board.
Board shall be joined with H – profile steel jointing strips. Boards can also be fixed with chipboard screws spaced as with clout nails.

Work description: Install trap door
Openings for trap doors in ceilings shall be made with 38 x 100 mm timbers, all securely spiked to the supporting timbers. The framework for the trap door shall be trimmed out of 38 x 38/50mm SA Pine wood, properly spiked to supporting timbers and trimmers. The size of the opening shall be 650 x 650 mm. Trap door lid shall be formed with a skeleton frame of brandering as for ceilings, covered on underside with at least a 3.2mm thick hard board. Soffits of trap doors shall be flush with soffits of ceiling when closed and flap back 180° on to top of the brandering when opened. Closed trap door shall rest on 50 x 19mm softwood fillets all around opening, mitred at angles and securely fixed to soffits of ceiling. Any trap door larger than 650 x 650 mm shall be provided with brandering along the centre of the lid, securely spiked to the skeleton frame. In lieu of the above, pressed steel trap doors complete with frame and hinges may be offered as an alternative, nailed to truss tie beams. Trap door size shall be as per standard steel type trap door.

Work description: Install suspended ceiling
Supply and install a new suspending ceiling complete with laminated white vinyl covered ceiling tiles. The boards shall be installed according to the manufacture's specification. Hold down clips must be used to hold the boards firmly in position. After installation; the ceiling shall be level and all grid strips shall be straight. Use 2.5mm pre stress galvanized wire, 4mm rod suspension system or 19mm wide galvanized strap as hangers. The installation shall be done according to the specification of the relevant manufacture. No damaged strips or boards shall be used.

ROOFS

Corrugated iron roof/ IBR

Prepare the corrugated iron roof for painting: Clean roof with steel brushes and scrapers and apply NS4 grey primer on clean rusted areas and two coats roof guard.

Sand & Cement
A sand/cement screed is the most widely used and acceptable substrate. It provides a firm and even surface to which the Waterproofing membrane can be properly sealed. It should be free of voids and protrusions, dry and clean, free of contaminants. The substrate should be stable and inert. Falls to outlets etc. should be formed in the substrate and not in the loading layer.

Lightweight Screeds
Foamed or expanded cement, polystyrene bead screeds etc. used to create falls and cross falls are to receive a sand/cement topping and are to be properly cured and thoroughly dry prior to installation of the waterproofing membrane. It should be smooth, free of voids and protrusions, contaminants and undulations.
Ash breeze and vermiculite are not conducive to stability and should be avoided wherever possible as they may severely impact on the long-term effectiveness of any waterproofing system.

ACRYLIC WATERPROOFING SYSTEM

Preparations & Applications:

- All surfaces must be clean, sound, dry and properly cured. Use a wire brush to remove any dirt or loose materials. If necessary repair any blowholes or voids using an appropriate product. Metal surfaces should be rust free and should be treated with suitable Red etch primer prior to the application of the membrane.
- Apply a generous base coat of the Waterproofing Compound by brush or roller. Ensure all necessary areas are well coated.
- While it is still wet, embed the Membrane into the base coat, smoothing out air pockets and creases. Ensure that the overlaps of adjacent membrane overlap by a minimum of 50mm
- Apply the second coat immediately, while the base coat is still wet in order to fully saturate the membrane on both sides
- The final top coat can be applied once the second coat is touch-dry. NB! The system needs to be protected from rain until dry. Clean tools with water! The same procedure can be applied to flashings and joints.

TREE SIZES: Specified on BOQ ITEM

ALTERATIONS

SITE VISIT: — Tenderers are advised to visit the site prior to tendering and satisfy themselves as to the nature and extent of the work to be done, also to examine the condition of all existing buildings as no claim will be entertained on the grounds of ignorance of the conditions under which the work was to be executed.

MATERIALS FROM THE ALTERATIONS: — unless otherwise stated, will become the property of the *Contractor* and all these materials, together with all rubbish and debris must be carried away and the site left clean and unencumbered.
Items described as "removed" shall mean removed from the site. Items described as to be re-used or to be handed over to the Administration are to be dismantled where necessary and stacked on site where directed, and the *Contractor* will be responsible for their removal and storage until required, and shall make good all items missing, damaged or broken at his own expense.
Unless otherwise described, no materials from the alterations shall be re-used in any new work without the written approval of the *Service Manager*.
In taking down and removing existing work, particular care must be taken to avoid any structural or other damage to the remaining portions of the buildings.

DUST: — The Contractor is to allow in his rates for taking all precautions necessary to prevent any nuisance from dust whilst carrying out the service.

MATCHING EXISTING WORK: — The terms "make good" or "making good" to existing work as described in the items shall mean making good with materials to match, all joined to existing.

DEMOLITIONS

A. Break and remove kerbs by means of hammer

B. Dismantle green steel shed, unscrew all wall mounted bolts in a safe manner, and cart away from site to a place located by the Contractor.

C. Break out 500mm into existing Asphalt surfacing to create construction joint between existing base and new base extension

EXTERNAL SERVICE

A. Repainting carports , remove damaged and replace with 100x100mm square tubing post embedded in 300 X 300 X 300mm concrete (15 MPa), tubing to be plumb and welded onto carport and make good.

B. Line marking to be retro-reflective WHITE road marking paint and apply to finished asphalt surface on the ROAD WAY/Parking lot

EARTHWORKS

A. Locate existing services and excavate 200mm deep into insitu material and cart away material to location located by the *Contractor*.

Compact insitu material to 95% MOD AASHTO

Import and place G4 material, compacted to 98% MOD AASHTO

Gradually apply prime coat to G4 base layer spray rate 1-2.5 litre per square metre:

Immediately before applying the bituminous material, all loose dirt and other objectionable material shall be removed from the surface with a power brush. When so ordered by the , a light application of water shall be made just before the application of bituminous material.

When so directed, the prime coat shall be applied in lanes of approximately one-half or less of the width of the completed surface. A lane of prime coat shall be applied, allowed to penetrate for not less than 48 hours, then covered with blotting material if required, and opened to traffic before bituminous material is applied to the adjacent lane. In covering the first primed lane, a strip at least 200 mm wide shall be left uncovered where it joins the second traffic lane to permit an overlap of the bituminous material

The surface of structures and trees adjacent to the areas being treated shall be protected in such manner as to prevent their being splashed or damaged. No bituminous material shall be discharged into a borrow pit or gutter.

Traffic shall not be permitted on the primed surface until the material has penetrated and dried and, in the opinion of the *Service Manager*, will not be picked up by traffic. Where the *Service Manager* deems it impracticable to detour traffic, the *Contractor* shall spread the minimum quantity as determined by the *Service Manager*, of blotting material necessary to avoid picking up, and traffic shall be allowed to use areas so treated. Any areas containing an excess or deficiency of priming material shall be corrected by the addition of sand or bitumen as directed by the *Service Manager*. Such corrections of faulty work shall be carried out at the *Contractor*'s expense.

Prime coat shall be applied at a time when the surface to be treated is dry or slightly damp, when the ambient temperature is above 13ºC and rising, or above 16ºC if falling, and when the weather is dry.

The equipment used by the *Contractor* shall include, unless otherwise approved by the *Service Manager*, a power brush, a pressure bituminous distributor, and, when necessary, equipment for heating bituminous material.

Surfacing:

Joining New Work to Existing Work

Existing asphalt pavements shall be trimmed back to provide the following:

i) A vertical surface at the joint line against which the new asphalt is to be placed.

ii) A longitudinal taper such that the minimum layer thickness is not less than the depth of the new asphalt surfacing.

iii) Where a new asphalt surface is to butt to an existing surface, the existing surface shall be saw-cut to provide a vertical face that is even in alignment. The joint is to be sealed with an approved bituminous crack sealant to prevent moisture ingress and protect the joint.

A tack coat shall be sprayed on the existing surface for resurfacing work. It is not required on a new primer or primer seal coat unless ordered by the *Service Manager*. The whole of the area to be sheeted with asphalt shall be lightly and evenly tack-coated with a fine spray of approved bitumen emulsion. The application shall be equivalent to 0.3 – 0.5 litres of bitumen emulsion per square metre. Dilution with water may be required to facilitate spraying and permit uniform application. The tack coat shall be allowed to 'break' (water separating from the bitumen) before the asphaltic surfacing is spread. Care must be taken to ensure that the longitudinal edges are adequately tack coated to secure satisfactory bonding along the edges. All care shall be taken to prevent overspray onto kerb and channel or median kerbs. Any such overspray shall be removed prior to the commencement of the defects liability period.

Laying Figure 4 Kerbs:

Laying of kerbs should be conducted according to the following SANS 1200MK:

- Trenches for kerbs and channels shall be excavated to the correct depth.
- Bedding material is to be crushed stone, cinders, slag, sand or other approved porous material having a maximum particle size if 13,2mm.
- This bedding material should be placed on a compacted subbase (90% of modified AASHTO.)
- Units shall be laid with joints not exceeding 10mm.
- 3:1 sand cement mix will be used to joint the kerbs. The ends of the units will be well moistened before jointing. Joints will be covered and kept moist for 40 hours after installation.
- Provision shall be made for expansion joints at least every 20m.
- Expansion joints will be filled with a suitable sealant.
- After grouting the kerb joints, the kerbs shall be backed with concrete with a strength of 15MPa.
- The backfill behind the kerbs needs to be compacted to 90% of modified AASHTO.

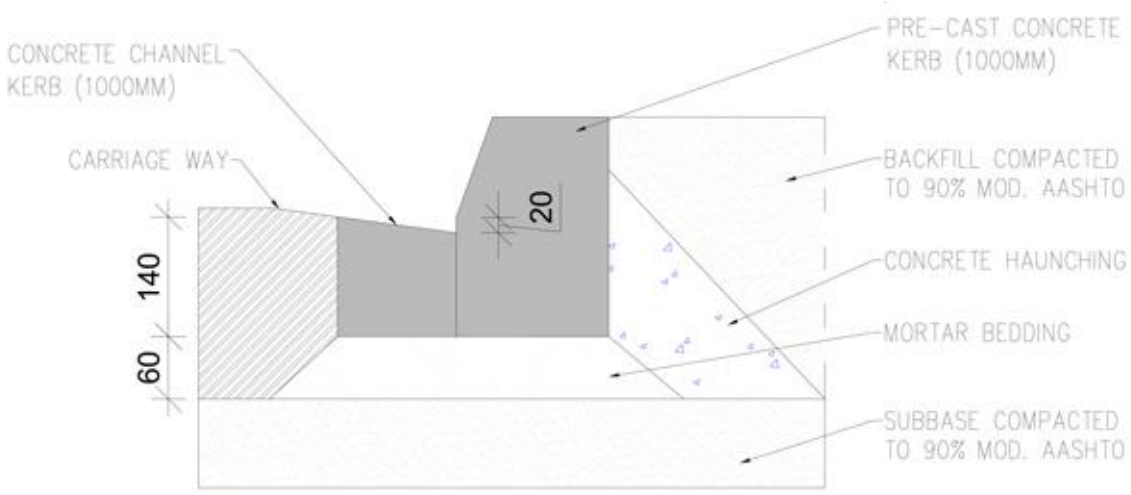


FIGURE 4 CROSS SECTION

Braai Area:

1. Break down and remove Wooden Shed, remove posts and horizontal braces for shed and prepare area to receive topsoil and sodding.

CARPORTS:

ROOF

GALVANIZED IBR ROOF SHEETS

Prepare the galvanized roof sheets for painting: Clean roof with steel brushes and scrapers and apply NS4 grey primer on clean rusted areas and two coats Greacian grey roof guard.

Supply and installation of colour coated IBR 0.5mm to matche existing, unless stated by service manager in writing a different colour shall be used

CARPORT

Size of carport: The double bay shall be 5.5m between posts, width, and 5.2m in length. Place the intermediate purlines on the underside of the carport roof. IBR roof sheeting to overlap outer frame 250mm in front and 100mm at the back, the overlap on sides shall be 50mm. The carport shall have a front clearance of 2.1m and rear clearance of 2.2m.
Posts: These are to be 100mm x 100mm x 3.0mm steel square tubing and provided at each corner and at equal distance of 5.5m centre to centre (refer to picture above). The posts shall be founded in concrete footings measuring 400mm x 400mm wide x 500mm deep; concrete shall protrude 20mm above ground level. The 20mm concrete section above ground level shall be 150mm x 150mm and shall be square and neatly finished with steel trowel finish. Concrete strength must be 15Mpa (minimum) after 28 days. Concrete must consist of cement, concrete sand and 19mm concrete stone. **All posts shall be vertically straight and shall be aligned in a horizontal straight line (same as existing).**
Frame: Front, back and sides of outer frame shall be 100 X 50 X 20 X 3.0mm lipped channel sections. The closed side of lipped channel shall face to outside. The lipped channel shall be neatly welded at corners and to posts with full penetration weld as per SANS standards. Fit

100 X 50 X 20 X 3.0mm lip channel section across on inner poles as bearers and weld neatly to posts and outer frame.

Purlines: Fit 75 X 50 X 20 X 3.0mm lipped channel sections between 100mm lipped channel mainframe as purlines, fit purlines at centre of the carport roof. Cut purlines ends to fit inside outer frame lipped channels and weld neatly to mainframe lip channels.

Welding: All welding shall be neat and professionally done, all welding spots, flux shall be removed and all welding joints clean with a steel brush. All welding shall be full penetration weld as per SANS standards.

Apply paint to steel: Prepare Surface for Painting**.** Remove all grease and oil with metal cleaner or thinners, No section shall be painted before Transnet had approved that the surface is clean from all grease and oil.

Paint all sections before fitting roof sheets, paint completely (Including the inside of lip Channel). Colour of finishing coat shall be white, Dulux or Plascon or paint approved by Transnet are to be used as specified below and is to be applied as follows.

Apply one coat white steel primer, apply one coat universal undercoat for all surfaces and apply one coat High Gloss enamel. All coats shall be properly applied to give a good cover of at least 2mm.

Roof sheeting: Fit 0.5mm full-hard IBR galvanized roof sheets to frame and fixed to lip channel with 5.5 x 57mm self-drilling drive screws with 26mm galvanized bonded rubber washers. Fit screw at every IBR sheet overlap and in centre of every sheet at every purline and outer frame sections.

Joints in material

Only full length lipped channels shall be allowed. Use 9.0m and 6.0m sections for outer frame and 6.0m sections for lipped channel inner bearers. No joints in posts shall be allowed.

ALL CONCRETE WORK AND PAVING

Cast concrete to be 15 Mpa and place on all areas requiring concrete. After the concrete has been placed, all exposed surfaces shall be kept continuously damp for at least 7 days covered with plastic sheeting or covered by sand. Concrete shall have 15 Mpa compressive strength unless, otherwise specified.

EARTHWORKS

Spoil material

The roadbed may contain material that is unsuitable for use because the quality of the material is unacceptable. This material shall be excavated, loaded and hauled to designated spoil sites as instructed by the Engineer. When designated spoil sites are not available temporary spoil stockpiles may be permitted with the prior consent of the Engineer.

Removal of unsuitable roadbed material

Any roadbed material which is of unsuitable quality shall be removed to spoil to such widths and depths as instructed by the Engineer. The unsuitable material shall be disposed of as detailed in the Contract Documentation or as instructed by the Engineer. The excavated roadbed material shall then be replaced with approved, imported fill material, compacted to the specified density.

The Engineer may instruct that material that is unsuitable due to being unstable be removed and replaced with approved material. The Contractor shall implement adequate temporary drainage measures as per instruction from the Engineer, ahead of the removal to spoil of the unstable material. The instruction by the Engineer must

clearly state the depth of the material to be removed, contain an assessment in respect of the stability of the material and ensure that suitable construction equipment is available.

After completion of the removal of any unstable material to the specified line and depth in accordance with the Engineer's instructions, it may still be necessary to remove some stable material.

Percentage of maximum dry density (MDD)

Any section of the roadbed material that is classified as being suitable for use in-situ, but the material fails to meet density requirements, shall be scarified, watered and compacted to the depth and to the percentage of MDD specified in the Contract Documentation. In the absence of a specified depth, the depth of roadbed treatment shall be 150 mm. If necessary, roadbed material may have to be scarified and temporarily bladed to windrow to allow for compaction in layers in order to achieve the specified compaction density throughout the specified depth of treatment.

Where any additional material has to be imported to make up the required level and layer thickness, and where the thickness of the layer of imported material would be less than the specified layer thickness after compaction, then the roadbed material shall first be scarified. The additional imported material shall then be placed, blended with the scarified roadbed material and compacted to the full specified depth of that roadbed layer.

Roller-pass compaction

Where the percentage compaction cannot be satisfactorily determined by way of testing the in-situ density due to the nature of the material, the Engineer shall instruct that the material be compacted by a specified number of passes. The number of passes shall be carried out by a single type of roller or by a combination of various types of rollers. The Engineer shall issue instructions regarding the required number of passes for each type of roller being used.

A trial section shall be constructed to determine the best type of rollers or combination of rollers and the required number of roller-passes for each roller being used.

This roller-pass compaction shall normally be carried out at the in-situ moisture content. No rigid control of the moisture content will be exercised during compaction. The Contractor shall nevertheless prove to the Engineer that every possible endeavour is being made to take advantage of favourable soil-moisture conditions and to carry out such roller-pass compaction in so far as is possible during periods when the roadbed is neither excessively dry nor excessively wet.

The Contractor shall consult the Engineer as to when conditions are favourable for compaction and where such compaction shall be done at any particular time

Construction tolerances

The roadbed shall be constructed to the dimensional tolerances specified below.

a) Levels

The level tolerances shall be as follows for the top of the roadbed.

In cases where the in-situ treatment of the roadbed supports a fill of more than 500 mm thick, the levels of the top of the treated roadbed shall not be subject to any level tolerances other than that the roadbed shall at no point encroach more than 200 mm into the fill.

In cases where the in-situ treatment of the roadbed is beneath a fill of less than 500 mm thick, the levels of the top of the treated roadbed shall at no point encroach more than 50 mm into the fill.

In cases where the in-situ treatment of the roadbed is in a cutting, irrespective of the type of material in the roadbed, and the pavement layers are constructed directly on top of the treated roadbed, the treated roadbed shall be subject to the following tolerances as applied to the specified design levels:

H90 = ± 25 mm Hmax = ± 35 mm

b)Width

The horizontal measurement taken from the centre line of the road to the edge of the roadbed treatment shall nowhere be 250 mm more than the specified dimension when measured at roadbed level and nowhere should it be less than the specified dimension.

Locate existing services and excavate 200mm deep into insitu material and cart away material to location located by the contractor.

Compact insitu material to 95% MOD AASHTO

Import and place G4 material, compacted to 98% MOD AASHTO

Gradually apply prime coat to G4 base layer spray rate 1-2.5 litre per square metre:

Immediately before applying the bituminous material, all loose dirt and other objectionable material shall be removed from the surface with a power brush. When so ordered by the Project Manager, a light application of water shall be made just before the application of bituminous material.

When so directed, the prime coat shall be applied in lanes of approximately one-half or less of the width of the completed surface. A lane of prime coat shall be applied, allowed to penetrate for not less than 48 hours, then covered with blotting material if required, and opened to traffic before bituminous material is applied to the adjacent lane. In covering the first primed lane, a strip at least 200 mm wide shall be left uncovered where it joins the second traffic lane to permit an overlap of the bituminous material

The surface of structures and trees adjacent to the areas being treated shall be protected in such manner as to prevent their being splashed or damaged. No bituminous material shall be discharged into a borrow pit or gutter.

Traffic shall not be permitted on the primed surface until the material has penetrated and dried and, in the opinion of the Project Manager, will not be picked up by traffic. Where the Project Manager deems it impracticable to detour traffic, the Contractor shall spread the minimum quantity as determined by the Project Manager, of blotting material necessary to avoid picking up, and traffic shall be allowed to use areas so treated. Any areas containing an excess or deficiency of priming material shall be corrected by the addition of sand or bitumen as directed by the Project Manager. Such corrections of faulty work shall be carried out at the Contractor's expense.

Prime coat shall be applied at a time when the surface to be treated is dry or slightly damp, when the ambient temperature is above 13ºC and rising, or above 16ºC if falling, and when the weather is dry.

The equipment used by the Contractor shall include, unless otherwise approved by the Project Manager, a power brush, a pressure bituminous distributor, and, when necessary, equipment for heating bituminous material.

SURFACING

Contractor prepared plans for the construction of pavement layers

The Contractor shall prepare and submit a management and utilization (M&U) plan for the construction of each individual pavement layer to ensure that it is worked in a sustainable and sensitive manner, that the environmental impact is minimised, material use and haulage are optimised and that costs are minimised.

The M&U plan shall at least take cognizance of the following and provide detail of the following as appropriate:

• The survey methods to be used to set out and control the levels and width of the pavement layers for each layer,

• A method statement and programme for the construction of each of the pavement layers from loading at the source of supply up to the completion of each layer,

• Risk assessment for ensuring the material can be taken to and used directly on the road to minimize any additional stockpiling on site,

• A method statement of how the pavement layers material will be prevented from sustaining storm water damage and from becoming excessively wet,

A method statement for the construction of trial sections where specified or where requested by the Contractor and especially for stabilised layers, crushed stone layers and macadam layers,

• A method statement of how oversize material will be dealt with,

• A method statement of how work will be carried out in restricted areas,

• Measures to comply with the general and specific conditions of the road environmental management plan,

• Measures to comply with safety regulations and obligations in terms of the relevant Health and Safety Acts and Regulations,,

• The full quality and process control testing detail for the applicable materials tests along with the frequency and quantity of such testing for each constructed section of each layer type to ensure full compliance of the constructed layer in terms of compaction density and material quality,

• The full quality and process control testing, frequency and quantity of tests, for stabilised layers, visually and tests in the laboratory, and

• Procedures for regular monitoring, auditing and reporting.

M&U plans need to be submitted during the course of construction. The Contractor's construction programme shall set out by when each M&U plan will be submitted for review. The construction of a particular layer shall only commence once the Contractor's M-&U plan for that layer has been reviewed and accepted by the Engineer. The Engineer shall respond within one week after receiving an M&U plan.

Brooming and priming of BM layer

When the fine aggregate material has dried off to below 50 % of the OMC of the infill material for the BM layer, the surface shall be swept clean to remove any loose surface fines and other material that may have been deposited on the surface after it was compacted.

The brooming operation shall not remove fines from between the coarse aggregate. A rough and/or loose surface caused by incorrect brooming is not acceptable.

When the cleaned surface of the layer has been accepted, the prime coat shall be applied in accordance with the product details and application rates specified in the Contract Documentation

Cross-fall and cross-section regularity

When tested with a 3,0 m straightedge laid at right angles to the road centre line, the surface of any layer shall not deviate from the bottom of the straightedge by more than 6,0 mm.

For base layers only, when a 3,0 m straight-edge is laid on the finished surface, the gap between the straightedge and the coarse aggregate in the surface shall not at any point exceed 10 mm when placed either parallel or at right angles to the centreline of the road.

At any cross-section, the difference in level between any two points shall not vary from their difference in level computed from the cross-sections shown on the drawings by more than 15 mm.

Surface regularity

Surface regularity, or riding quality of the base layer, shall be assessed by one or more of the following methods as specified in the Contract Documentation.

a) By using a 3,0 m straight-edge

A 3,0 m long straight-edge with sharp right-angled corners at the bottom as well as a tapered wedge, shall be used for measuring irregularities on the base layer. The straight-edge shall be placed on the road and measurements taken by inserting the thin edge of the wedge below the straight-edge. Measurements shall be done in each wheel path of each lane or shoulder randomly, at not more than 10 m apart.

The maximum value of an individual surface irregularity measured at any point with a 3,0 m straight-edge, shall not exceed 10 mm.

b) By using a rolling straight-edge

Before each day's measurements are taken, the rolling straight-edge shall be calibrated.

For measuring the irregularities, measurements shall be done in each wheel path of each lane or shoulder over the full length of the section. The number of surface irregularities shall not exceed those given below:

• The average number of irregularities per 100 m equal to or exceeding 5,0 mm when taken in wheel paths over 300 m to 600 m lengths……≤ 3

• The number of irregularities equal to or exceeding 5,0 mm when taken over 100 m lengths…… ≤ 4

The maximum deviation for each wheel path must also be recorded and shall not exceed 10 mm.

Construction time limitations for treatment and stabilisation

Chemical agent	Maximum continuous period allowed from the time the application of the chemical agent onto the top of the layer commences up until the completion of the stabilisation process
Material modification	
Lime	10 hours. The treated layer shall subsequently remain undisturbed for 24 hours.
Material cementation	
Cement blends	6 hours until the completion of the compacted layer
Lime	10 hours until the completion of the compacted layer
Material improvement	
Bitumen emulsion	12 hours until the completion of the compacted layer
Bitumen emulsion with cement	8 hours until the completion of the compacted layer
Foamed bitumen with or without cement	10 hours until the completion of the layer
PMPL stabilised crushed stone material	
Cement blends	1 hour until the commencement of compaction plus 4 hours until the completion of the compacted layer.
Wet lean-mix concrete	150 minutes until the completion of the compacted/vibrated layer (reference temperature = 20°C This time shall be reduced by 30 minutes for every 5°C that the mix temperature exceeds 20°C

Weather restrictions

No stabilisation shall be done during windy conditions, wind speed more than 15 km/h (4 m/s), wet weather and cold weather when the air temperature is below 3°C or with falling air temperatures, 7°C and falling.

No stabilisation work shall be commenced if the surface temperature of a compacted stabilised layer may fall below 1°C during the first three (3) days after stabilisation. The Contractor shall take the necessary precautions and the construction programme for the stabilisation work shall take the actual and predicted weather conditions into account.

All stabilised layers damaged by rain, frost or by the formation of ice in the layer shall be removed and replaced by the Contractor at no cost to the Employer.

Traffic limitations

No vehicles or construction equipment except that used for mixing the stabilising agent into the layer shall be allowed to travel over the spread stabilising agent.

No traffic or construction equipment except that required for curing or priming shall be allowed to travel over the compacted stabilised layer during the specified curing period.

Mixing in the cementitious agent using conventional equipment

Immediately after the cementitious agent has been evenly spread, it shall be mixed with the layer material for the full depth of treatment. The completed layer underneath shall not be damaged, nor shall the cementitious agent be mixed below the required depth. Mixing shall be continued until a homogeneous mix of the material and the cementitious agent has been achieved over the full area and depth of the material being pretreated or stabilised.

Mixing shall be done using a combination of a grader, disc harrow and/or rotary mixer or by using a recycler, working over the full area and depth of the layer by means of successive passes of the construction equipment as applicable. When a recycler is used in isolation, cross-mixing is often inadequate and additional mixing plant shall then be utilised in conjunction with the recycler to ensure thorough cross-mixing. Mixing may also be done in a central batch-mixing plant if the Contractor so chooses.

After completion of the mixing process the mixed material shall be spread and shaped.

If the material is being pretreated, the shaped layer shall be given at least one pass with a flat wheel or steel tyre roller and left undisturbed for the time period as specified.

Protection and curing of chemically stabilised layers

All stabilised layers shall be protected against rapid drying-out for at least seven days following completion of the layer.

This can be achieved by the frequent application of water for 7 days or by water curing followed by covering with the next layer or by water curing followed by the application of an approved curing membrane. The use of single-axle trucks with a maximum axle load of 6t shall be used to apply the chosen curing compound.

The specific method of protection or curing used may be any one of the methods as specified hereunder or as stipulated in the Contract Documentation.

a) Water curing

The stabilised layer shall be kept continuously wet by watering at frequent intervals for an initial period of 48 hours after the compaction of the stabilised layer has been completed. The stabilised layer shall thereafter be kept continuously damp for at least a further five days.

Any stabilised layer which is not kept continuously wet or damp for at least seven (7) days, and is by default therefore subjected to consecutive wet-dry cycles, may be rejected if the layer exhibits shrinkage cracking or any carbonation.

Prime coat curing

Where a prime coat is specified on top of any stabilised layer, the prime coat may be utilized as a curing membrane and it shall be applied at the rate specified in the Contract Documentation. Use of the prime coat as a curing membrane may only be applied provided the surface moisture is only slightly damp and not wet.

If the prime coat is utilised as a curing membrane for a stabilised base layer, payment shall only be made once for the prime coat and no additional payment will be made for providing a curing membrane.

Inspection of the works

The Engineer shall do routine inspections and conduct routine tests to determine whether the quality of material and workmanship provided, complies with the requirements of the Contract Documentation.

Any stabilised layers with lamination layers such as biscuit layers, as identified visually and/or by the hollow sound caused when a heavy chain is dragged over the stabilised layer, shall be rejected.

The material in the rejected sections of the completed layer shall be ripped and removed and replaced with new material. The new material shall then be stabilised and compacted according to the specifications prior to the construction of any subsequent layers.

Alternatively, the material in the rejected sections can be recycled in-situ with an additional quantity of stabilising agent as determined by testing and instructed by the Engineer. In-situ recycling will only be permitted provided that the properties of the recycled material are compliant with the specified requirements for that layer of material.

All remedial work shall be carried out at no cost to the Employer.

Quality/process control

It shall be the responsibility of the Contractor to ensure that the Engineer has been informed in writing of the daily testing requirements. The material testing can then be properly co-ordinated and completed timeously.

Sample preparation and testing for checking and approving the properties of chemically stabilised material shall be done as per the approved SANS test methods.

Paver

The mixture shall be laid by an approved type of self-propelled mechanical spreader and finisher fitted with automatic electronic screeds, capable of paving to the required widths, thickness, profile, camber or cross-fall without causing segregation, dragging, tearing, or other surface defects. Where leveling beams on multiple skids or sliding beams are used they shall be at least 12,0 m long, or as specified in the Contract Documentation.

Rollers

Compaction shall be done by means of approved flat steel-wheeled, vibratory or pneumatic-tyre rollers. The frequency as well as the amplitude of vibratory rollers shall be adjustable. Vibratory rollers shall be used only where there is no danger of damage being done to the asphalt, and to the smoothness of the layer, bridge decks, or other layers. It will be indicated in the Contract Documentation whether any vibratory compaction equipment may be used on bridge decks, and what the constraining parameters will be. The rollers shall be self-propelled and in good working condition, free from back lash, and without any oil leaks. Rollers shall be equipped with adjustable scrapers to keep the drums clean and with efficient, fully functioning means of keeping the wheels wet to prevent mixes from sticking to the rollers. Approved release agents may be used on roller wheels but the use of petroleum products for this purpose shall not be permitted. The mass and tyre pressures shall be such so as to ensure compaction complying with the specifications for surface finish and compaction.

The required type, and number, of rollers to be utilized shall be appropriate to the mix type being paved and rate of paving which shall be as determined during the trial section. The Contractor shall take adequate precautions to eliminate any pick-up of the paved mat. For open-graded asphalt and/or stone-mastic asphalt, only flat steel-wheeled rollers shall be used.

Vehicles

The asphalt shall be transported from the mixing plant to the spreader in tip trucks that are in good condition having no oil leaks. They shall have tight, clean smooth beds and sides that have been treated to prevent adhesion of the mixture to the truck bodies. A thin film of soapy water, vegetable oil or approved release agents may be used to prevent adhesion but petroleum products shall not be used for this purpose. The truck bins shall be designed to tip asphalt into the paver's hopper without spillage.

To minimize temperature loss, all vehicles used for transporting asphalt to the site shall be fitted with appropriate bin covers. Where the expected transport, and or, storage time of the asphalt is expected to exceed one hour in the truck, the use of thermal asphalt covers (canvas covers not acceptable) shall be obligatory.

Placing the asphalt

The mixture shall be delivered to the paver in such a manner that the paving will be as continuous as possible with minimal stopping. Any lengthy delay in supply resulting in the asphalt mat cooling to below the appropriate compaction temperatures shall require that a construction joint be formed prior to recommencing with the paving operation.

The temperature of the mixture shall be controlled by measuring in a random pattern in the truck immediately before emptying and shall not be more than 10°C below the minimum mixing temperature. The adjustment of the screed, tamping bars. Feed- screws, hopper feed, etc., shall be checked frequently to ensure uniform spreading of the mix. If segregation or tearing occurs, the paving operations shall immediately be suspended until the cause is determined and corrected.

The addition or removal of material behind the paver shall not be allowed and the paver shall be capable of spreading the mixture to the levels that will provide the specified compacted thickness

Only minimal hand-working of the gap graded asphalt shall be permitted after discharge from the paver and before rolling and shall only be carried out with wooden spreaders. Workmen shall not be permitted to walk on un-compacted open graded asphalt.

Unless otherwise approved, paving shall commence at the bottom of the grades and the lower edges of super-elevated curves where the grades are steeper than 5 %.

Paving widths shall be so planned that longitudinal joints do not coincide with joints in lower layers of asphalt base, paver laid crushed stone bases or within the wheel paths of a lane.

Continuity of placing is especially important for open graded asphalt. Cutting of longitudinal joints shall be avoided when paving open-graded asphalt but where cutting is essential, only saw cutting shall be permitted. The existing layer edge shall be heated by approved means in order to ensure adequate longitudinal bonding of the asphalt between the two lanes.

Unless otherwise specified in the Contract Documentation the paver shall be equipped to provide automatic control of levels and cross section.

The mixer capacity and the operating speed of the paver shall be so coordinated so as to ensure continuous laying and thus avoid intermittent stopping of the paver.

Paving shall cease when rain starts falling or when the surfaces to be paved are visibly wet.

In all cases, including levelling courses, the paver shall be provided with approved skid beams with electronically controlled equipment that can ensure a constant cross-fall and can even out local irregularities.

Asphalt shall be placed in restricted areas with the aid of smaller specially equipped pavers, hand tools or other approved equipment. All the requirements with respect to temperature, mix composition, uniformity, in-place properties etc. shall remain applicable but layer thickness and control shall be such that the requirements for compaction and surface tolerances can still be achieved.

Joining New Work to Existing Work

Existing asphalt pavements shall be trimmed back to provide the following:

i) A vertical surface at the joint line against which the new asphalt is to be placed.

ii) A longitudinal taper such that the minimum layer thickness is not less than the depth of the new asphalt surfacing.

iii) Where a new asphalt surface is to butt to an existing surface, the existing surface shall be saw cut to provide a vertical face that is even in alignment. The joint is to be sealed with an approved bituminous crack sealant to prevent moisture ingress and protect the joint.

A tack coat shall be sprayed on the existing surface for resurfacing work. It is not required on a new primer or primer seal coat unless ordered by the Project Manager. The whole of the area to be sheeted with asphalt shall be lightly and evenly tack-coated with a fine spray of approved bitumen emulsion. The application shall be equivalent to 0.3 – 0.5 litres of bitumen emulsion per square metre. Dilution with water may be required to facilitate spraying and permit uniform application. The tack coat shall be allowed to 'break' (water separating from the bitumen) before the asphaltic surfacing is spread. Care must be taken to ensure that the longitudinal edges are adequately tack coated to secure satisfactory bonding along the edges. All care shall be taken to prevent overspray onto kerb and channel or median kerbs. Any such overspray shall be removed prior to the commencement of the defects liability period.

<u>Earthing Structure or building</u>

The earthing system shall be confined within the fenced boundary of each site. At worst, the steady state earth leakage resistance in rocky grounds shall be less than 80 Ohms with a surge impedance of less than 25 ohms. Earth leakage resistance less than 10 Ohms is typically desirable, in accordance with SANS-10142-1-2. 2.1 Unless otherwise specified all material and equipment supplied shall comply with the applicable and latest editions of SANS and Transnet Freight Rail's publications.

The following publications (latest editions) are referred to in this specification.

An earth electrode referred to as earth mat electrode, laid at least 1.5 meters under the foundations on bare soil. The earth mat shall cover an area of at least 1.5 square metres in accordance with SANS 1063.

Only copper rods of at least 70 mm^2 shall be used for earth electrodes in accordance with SANS 1063.

STANDARDS AND PUBLICATIONS

SOUTH AFRICAN NATIONAL STANDARDS

SANS 1063 Earth rods, couplers and connections.

SANS 10199 The design and installation of earth electrodes.

SANS 10142-1-2 Earth leakage testing

UNDER FOUNDATION EARTH ELECTRODES

The length of the rods will depend on the application:

Earth electrodes (earth spikes), Minimum length of 1.5 metres shall be used.

Down conductors, earth tails and interconnecting conductors. Rods of varying lengths may be used.

Four copper tape conductors, referred to as tails must be joined to the earth mat and the loop trench earth around the foundation by means of brazing, welding or cade welded.

Steel reinforcing bars/mesh in the concrete foundation shall be bonded to the earth mat at four corners of the foundation with copper tape conductors.

The location of the earth mat/earth spike shall be as close as possible to the main surge arrestors support structures. SPC-00671 Version 2

LOOP TRENCH EARTH

A loop trench electrode must be buried around the perimeter of the mast, solar array, and container or building foundation.

The trench loop electrode must be located 1m beyond the outermost skin or wall of the mast, solar array, container of the building in accordance with SANS 10199.

Where predictable, all trench loops electrodes must be buried at a minimum soil depth of 0.5 metre.

Trench loop electrodes must be cross - bounded to each other on a single buried trench with copper tape conductors.

A driven rod electrode must be located at each of the four corners of these loops.

A buried counterpoise copper tape conductor must be connected to the corners of the mast base, solar array, container or building trenched loop electrodes respectively, and must be

run to the adjacent corners of the site fence where it must be bonded to the fence post at the corners.

MAIN EARTH NODE

A ground reference node must be defined approximately midway along the one element of the container or building trenched loop.

The node must compromise a driven rod at this position- together with two additional driven rods, located a minimum of 3m away (outside the equipment loop) and 3 m apart.

These two additional driven rods must be connected back to the main node, via buried trench conductors.

PVC - Insulated stranded copper conductors must be routed from this node to bond to the primary reference bus bar in the container or the building.

REFERENCE BUSBAR

The primary reference bus bar in the container or building must be located close to the floor level, and close to the points of entry of the insulated conductors in order to minimise the length of the bolted connection form the reference node.

The bus bar must be wall mounted upon-off insulators.

The bus bar must have enough space to accommodate existing and possible future equipment to be installed.

MAST CONSTRUCTION EARTHING

From each leg of the mast construction, a copper tape conductor must be joined to the trenched loop around the mast foundation.

A copper tape conductor must be joined to the lightning arrestor at the top of the mast to the trenched loop around the foundation.

CONNECTIONS

All connections must be welded, brazed or cad-welded except connections to the bus bar and mast structure which must be bolted.

Exposed junctions between dissimilar metals such as tails from the mast loop to the mast structure must be achieved via a suitable bimetallic contact, such as hot-tinned lugs together with stainless steel bolts having a minimum contact area of 100 metre square and sealed with coal-tar epoxy.

FIRE SUPPRESSION SYSTEM

Supply and install fire suppression systems as pe the specification attached.

SUBMITTALS

A complete drawing shall be submitted to Transnet Freight Rail. This will show the design of the system layout for the structure along with details of products to be used in the installation.

Earth resistance to be tested after installation, results shall be recorded and submitted for Transnet Freight Rail quality assurance department for records and acceptance of the installation.

A design layout or document indicating the building, container or mast earthing shall be kept in a site file.

Electrical Works

The *Contractor* shall remove all existing lights.

The *Contractor* shall remove all existing power skirting and plugs completely.

The *Contractor* shall remove the existing light switch.

The *Contractor* shall remove the existing air-conditioning completely.

The *Contractor* shall remove all the existing heaters or aircons

The *Contractor* shall supply and install 4Ft LED X 4 tube surface mount light fittings with low brightness aluminium louvres and lamps completely.

The *Contractor* shall supply and install double Hammer tone Grey power skirting completely with all bends and end covers included.

The *Contractor* shall supply and install red dedicated socket outlets.

The *Contractor* shall supply and install white socket outlets.

The *Contractor* shall supply and install a new single lever light switches.

The *Contractor* shall supply and install 200mm X 60mm wire mesh cable tray with all hanging accessories completely.

The *Contractor* shall supply and install a double door 96-way surface mount Distribution Board consisting off the following circuit breakers.

1) 100 Amp X 3 Phase circuit breaker 6Ka
2) 80 Amp X 3 Phase circuit breaker 6Ka
3) 60 Amp Earth Leakage Relay with overload protection 3Ka X
4) 20 Amp X 1 Phase circuit breaker 3Ka

The *Contractor* shall supply and install a 60KVA UPS Phase input and 3 Phase output with a battery backup supply of 50% of the full load.

Rectifiers as per required specification

The *Contractor* shall wire all dedicated socket outlets in all the areas from this Distribution Board which will be supplied with power from the UPS.

The *Contractor* shall supply and install red dedicated socket outlets.

The *Contractor* shall supply and install white socket outlets.

The *Contractor* shall supply and install new single lever light switches.

The *Contractor* shall supply and install 20 Watt LED flood lights.

The *Contractor* shall supply and install a day/night switch.

AIR-CONDITIONING SERVICE

Air-Conditioning shall be achieved by means of from 5000Btu to 24000Btu ceiling cassette inverter units depending on the requirement of each building.

Each unit shall have a cooling capacity of no less than less than the Btu required. A heating facility is required and shall preferably be reverse cycle operation of no less than 18 required Btu.

The power supply point will be obtained from the distribution board and a waterproof isolator provided adjacent to each condensing unit by the *Contractor*.

The Air-conditioning *Contractor* shall be responsible for the electrical connection between the indoor and outdoor units of the split system air conditioning units.

The *Contractor* shall provide a condensate water drain pipe to the outside.The units offered shall be of the inverter type. The *Contractor* shall install lockable waterproof isolators at each unit. Each unit must be controlled by a hardwired wall mounted controller where possible

Batteries and chargers

Supply and Installation of lithium iron batteries

Lithium batteries, suitable for standby

power supplies to telecommunication equipment, are required. The batteries must be designed for a minimum of 1000 deep discharge cycles at a normal temperature of 20ºC. The Battery shall not emit any gases during charges and discharge cycles. Excellent recovery capability after deep discharge under frequent cyclic discharge Battery be able to operate up to 80% DOD. Fast recharge capabilities (up to 100A recharge current). 48V rectifier chargers should be supplied to be able to charge the batteries and specification for the battery and chargers is supplied.

ELECTRICAL COC CERTIFICATES

The *Contractor* shall issue Electrical COC certificates for the following.

1) For all electrical work and air-conditioning work performed.
2) Installation of the Standby Emergency Generator

Repairs/Replacement of electrical fence including the gate motor and all relevant electrical work performed on the outside area

2.1.2 The *Contractor* supplies the following:

Plant and Materials

The *Contractor* provides Plant and Materials for inclusion in the *service* in accordance with SANS 1200A sub-paragraph 2.1, unless otherwise stated elsewhere in the *Service* 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 *Service* Information or as may be subsequently instructed by the *Service Manager*.

Where Plant and Materials for inclusion in the *service* 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 *Service Manager* on each occasion where replacement is required.

The Plant and Materials provided by the *Employer* are solely at the risk of the *Contractor* for inclusion in the *service*. The *Contractor* takes responsibility for ensuring the Plant and Materials do not contain a Defect(s) and are in compliance with the standards stated elsewhere in the *Service* Information.

The *Contractor* provides all other Plant and Materials necessary for the *service* not specifically stated to be provided "free issue" by the *Employer*.

2.2 Parts of the Service which the *Contractor* is to design

2.2.1 The *Contractor* is to design the following parts of the services:

2.2.2 The *Contractor* is to design the following parts of the *service*:

- All temporary service
- All other items required for the service

2.2.3 Unless expressly stated to form part of the design responsibility of the Employer as stated under Employer's design above and whether or not specifically stated to form part of the design responsibility of the *Contractor* under this paragraph 2.2, all residual design responsibility and overall responsibility for the total design solution for the service rests with the *Contractor*.

2.3 Procedure for the Submission and Acceptance of *Contractor*'s Design

2.3.1 Procedure for the Submission and Acceptance of *Contractor's* Design

2.3.2 The *Contractor* shall address the following procedures:

The *Contractor* submits details of his design, temporary service and all other items required for the *service* to the *Service Manager* for acceptance.

The *Contractor* shall submit to the samples of all materials to be used in the *Service* and which are to be supplied by the *Contractor* for the approval of the prior to their incorporation into the work. If accepted, the samples so submitted will be kept by the as standards for the duration of the Contract. No materials inferior in quality, workmanship or appearance to the accepted samples shall be used.

All alternative materials not defined herein or SANS proposed by the *Contractor* shall be tested for acceptability by the *Contractor* and the results of the tests made available to the . All such materials then require the approval of the costs of the tests shall be borne by the *Contractor*.

The *'s* approval is required for any manufacturer's published instructions prior to their use by the *Contractor*.

2.3.3 The *Contractor* undertakes design safety as per standard, and best practice codes of Engineering.

2.3.4 The *Contractor* grants the Employer a licence to use the copyright in all design data presented to the Employer in relation to the service for any purpose in connection with the construction, re-construction, refurbishment, repair, maintenance and extension of the service with such licence being capable of transfer to any third party without the consent of the *Contractor*.

2.4 Review and Acceptance of *Contractor's* Design

The *Contractor* submits documentation as the '*Service* Information' requires to the *Service Manager* for review and acceptance.

In undertaking the '*Service*' (including all incidental services required), the Supplier shall conform and adhere to the requirements of the '*Contractor* Document Submittal Requirements' Standard

3 SERVICE

3.1 Temporary service, Affected Property & constraints on how the *Contractor* Provides the Service

3.1.1 Affected Property entry and security control, permits, and Affected Property regulations

The *Contractor* complies with the Employer's Affected Property entry and security control, permits and Affected Property regulations.

3.1.2 Restrictions to access on Affected Property, roads, walkways and barricades:

3.1.2.1 The *Contractor* is specifically excluded from entering the Employer's Operational Areas which are adjacent to the Affected Property. The *Contractor* plans and organises his work in such a manner so as to cause the least possible disruption to the Employer's operations.

3.1.2.2 The *Contractor* ensures safe passage of his team, to traffic and around the Affected Property working areas at all times which includes providing flagmen.

3.1.2.3 The *Contractor* ensures that any of his staff, labour and Equipment moving outside of his allocated Affected Property and Service Areas does not obstruct the operations of the *Employer.* To this end, access routes are allocated and coordinated by the *Service Manager.*

3.1.2.4 The *Contractor* ensures that all his Service staff, labour, and Equipment remains within his allocated and fenced off working Area.

3.1.2.5 All *Contractor's* staff and labour working within the service are(respective depots complies with Transnet Freight Rail (TFR) operational safety requirements and are equipped with all necessary personnel protective equipment (PPE).

3.1.3 People restrictions on Affected Property; hours of work, conduct and records:

The *Contractor* keeps daily records of his people engaged on the Affected Property with access to such daily records available for inspection by the *Service Manager* at all reasonable times.

4 LIST OF REFERENCE SPECIFICATIONS

The above stipulation is for information and reference purposes only.

Please refer to electronic references.

Drawing number	Revision	Title
SKETCH - 1	0	Kitchen Layout
Sketch -2	0	Back filling- Cross sectional drawing
Sketch 3	0	Eastern region building layout
Sketch 4	0	Central region building layout
Sketch 5	0	Western region building layout

5 Health and Safety Information

5.1.1General

The *Contractor's* attention is directed to the Health and Safety Specification TFR-ISM-RN-R&C-FM009, and in particular to his Health & Safety Program, which must be submitted with his tender, as well as the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended and Regulations issued in terms thereof or un-repealed regulations issued in terms of the former Act no. 6 of 1983, in their entirety.

Without derogating from the Act or any un-repealed regulations issued in terms of legislation, or without purporting to limit the *Contractor's* responsibilities, the following are brought to the *Contractor's* attention:

(a) For the purpose of the Act the site/s, to be demarcated as agreed to between the *Contractor* and the *Service Manager* before the works start, will be transferred to the control of the *Contractor* for the duration of the contract.

(b) The *Contractor* shall appoint a health and safety coordinator to liaise at least fortnightly with the *Service Manager* on matters pertaining to occupational health and safety.

(c) The *Contractor* is an 'employer' in his own right as defined in Section 1 of the Act 85 of 1993 and he shall fulfil all his obligations as an employer in terms of the Act.

(d) The *Contractor* shall furnish the *Service Manager* with full particulars of any Sub-*Contractor* which he may involve in the contract and the Sub-*Contractor* shall be made aware of all the clauses in this contract pertaining to health and safety.

(e) The *Contractor* shall advise the *Service Manager* of any hazardous or potentially hazardous situation, which may arise from, work being performed either by the *Contractor* or Sub-*Contractor*.

(f) A letter of good standing in terms of Section 80 (*Employer* to register with the Compensation Commissioner) of the Compensation for Occupational Injuries and Deceases Act 1993 (Act 130 of 1993), must also be furnished.

(g) The *Contractor* shall comply with the current Transnet Specification TFR-ISM-RN-R&C-FM009, Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, Act 85 of 1993 and Regulations, and shall, before commencement with the execution of the Contract, which shall include site establishment and delivery of construction plant, equipment or materials, submit to the *Service Manager:*

- Documentary proof of his procedural compliance with the Act, and
- Particulars of the Health and Safety Program to be implemented on the site in accordance with the Transnet Specification TFR-ISM-RN-R&C-FM009.
- The *Contractor's* Health and Safety Program will be subject to agreement by the *Service Manager*, who may order supplementary and/or additional safety arrangements and/or different safe working methods to ensure full compliance by the *Contractor* with his obligations as an employer in terms of the Act.

(h) All clauses in this contract pertaining to health and safety form an integral part of this contract and if not complied with may be construed as breach of contract entitling the *Employer* to the appropriate remedies.

NB: The *Contractor* and his employees shall have valid safety inductions and medical certificates when accessing or working on site. Copies of which shall be submitted to the *Service Manager*. This will be at a time and location Transnet will arrange.

5.1.2 Hazard identification and risk assessment

The *Contractor's* appointed Site Representative and the *Service Manager* shall finalize a site-specific HIRA (Hazard Identification and Risk Assessment) document, on the day of site handover to the *Contractor*. This site-specific HIRA document, based on a continuous HIRA, must cover site-specific hazards and the safe management of these hazards. The HIRA document must be signed by the abovementioned representatives, and be accepted by the *Service Manager*, before any construction work can commence.

5.1.3 Substance abuse

The OHSA (Act 85 of 1993) clearly states in the Safety Regulations no. 2A "INTOXICATION" An employer or user, as the case may be, shall not permit any person who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace". Transnet Freight Rail enforces this legislation by means of its Substance Abuse Policy, and therefore reserves the right to do substance abuse testing on anyone who enters their premises.

5.1.4 Safety meetings

The *Contractor* shall ensure that a safety representative is appointed and regular safety meetings are held. Written minutes of these safety meetings shall be forwarded to the *Service Manager.* All costs related to the safety aspects required under this contract will be carried by the *Contractor*'s and therefore be covered under the rates tendered.

NB: The tendered amount shall include for all costs to confirm to the Health and Safety requirements.

6 Procurement

6.1 The *Contractor's* Invoices

6.1.1 The invoice states the following:

- Invoice addressed to Transnet SOC Limited;
- Transnet Limited's VAT No: 4720103177;
- Invoice number;
- The *Contractor's* VAT Number; and

6.1.2 The invoice contains the supporting detail:

A bill format as per the tender document indicating previously paid, paid to date and amount due for the month.

The invoice is presented either by post or by hand delivery.

6.1.3 Invoices submitted by post are addressed to:

Transnet Rail Infrastructure Manager (TRIM)
138 Ellof Street
Johannesburg
2001
For the attention of Mila Sobetwa

6.1.4 Invoices submitted by hand are presented to:

Transnet Rail Infrastructure Manager (TRIM)
138 Ellof Street
Johannesburg
2001
For the attention of Mila Sobetwa

The invoice is presented as an original.

TRANSNET

freight rail

TECHNICAL SPECIFICATION
BATTERIES AND CHARGERS FOR TELECOMMUNICATIONS EQUIPMENT

SPC-00005
May 2018

Revision 3.1

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I DOCUMENT AUTHORISATION

FUNCTION	NAME	TITLE & DIVISION	SIGNATURE	DATE
Compiled by :	E van der Merwe	Senior Technologist Transmission		2018-05-03
Edited by:	S Ntombela	Chief Engineering Technician		
Reviewed by:	S Mashishi	Senior Engineer		
Reviewed by:	S Mchunu	Acting: Principal Engineer		

II Distribution:

To be registered in TFR's document management system – ProjectWise

Emailed to all TFR Telecommunications specialists

Provided to relevant Project Managers, Tenderers and Contractors

III Change History

Issue No.	Date	Issued by	Change Summary
1.1	2011-07-13	Transmission	Updated
3.0	2013-07-24	Transmission	Updated
3.1	2018-05-03	Transmission	Updated

IV Changes since Last Revision

Clause	Description

V ABBREVIATIONS, ACRONYMS AND DEFINITIONS

ABBREVIATIONS AND ACRONYMS	DESCRIPTION
AVR	Automatic Voltage Regulator
C	Battery capacity (Amp-hours)
dB(A)	Sound pressure A-weighted
ITU	International Telecommunications Union
VRLA	Valve Regulated Lead-Acid
emf	Electromotive Force

DEFINITIONS	DESCRIPTION
None	

1. INTRODUCTION

Batteries and associated chargers are required for Telecommunications equipment used by Transnet Freight Rail. The battery charger(s) offered must be designed for the batteries offered.

2. FUNCTIONALITY

The basic principles of operation are as follows:

2.1.1 Once the mains has restored after a mains failure the charger should recharge at the battery manufacturer's prescribed rate.

2.1.2 For battery protection, an override timer should be provided which will return the charger to Float after 16 hours.

3. DESIGN OF CHARGER

General Requirements

3.1.1 The charger must be capable of satisfactory operation from a 220 V ±10 % 50 Hertz ±2 % single-phase mains supply.

3.1.2 If possible a 4.5Kw Automatic voltage regulator must be included in the same shelf.

3.1.3 The charger must be capable of continuous operation on full load and variable mains voltage and or frequency variations under the specified climatic conditions.

3.1.4 The charger must be of the switch mode rectifier type and adequately rated to cater for the output voltages and currents called for.

3.1.5 The charger must be equipped with a management system allowing both local and remote control of the power system from a computer.

3.1.6 The charger must have a non-volatile alarm history log of at least the last 50 alarms stamped with date and time.

Charger Construction

3.1.7 The charger module(s), AVR and DC distribution panel must be mounted in a shelf of not more that 9U (400mm) in height and 423 mm (19 inch) wide.

3.1.8 An option of a separate AVR will also be considered

3.1.9 DC distribution panel to have 4x100 Amp DC circuit breakers

3.1.10 Blanking-off (dummy) panels must be fitted to all vacant positions.

3.1.11 All terminals must be clearly and indelibly designated with the relevant voltages and polarities and must be of a form, which must prevent stranded conductor wires from spreading.

3.1.12 An ON/OFF switch must be provided on the front panel of the charger to interrupt the mains supply lines to the charger.

3.1.13 An isolator/fuse rated at the correct rating for the battery capacity must be include on the front panel of the charger so that the battery bank can be isolated from the charger and load.

3.1.14 The charger must be modular to enable expansion up to 8000w and operate in parallel to increase overall output power and must have current sharing capabilities.

3.1.15 The charger must be marked with the ratings of input voltage, frequency, output voltage and output current as well as type number, serial number and name of manufacturer.

3.1.16 Cable entries may be back entry only and cables shall be fully protected against any damage at the entry points.

3.1.17 Adequate provision must be made in the design of the equipment to protect electronic components in the power equipment and in the load against voltage transients induced by switching or lightning surges conducted into the equipment by the power leads. Details of the protection offered must be included in the tender.

Charger setting

3.1.18 The charger must be able to deliver charging voltages within the following limits:

3.1.19 Boost function must be disabled on setup

	Minimum adjustment range	**Current limit**
Float	54.5V DC (VRLA)	Adjustable from 10% to 110% of the maximum charger output.

Boost	56,4V DC (VRLA)	Adjustable from 10% to 110% of the maximum charger output. The reset to Float detection level must be adjusted from 1% to 70% of maximum charger output.

3.1.20 The charger must be capable of supplying the full rated load (100%), but must be inherently current-limited to protect it against overload from 100% of the nominal rated current up to a short circuit without disconnecting the charger from the mains, blowing fuses or tripping circuit breakers.

3.1.21 The specific settings at which the charger must be set are as follows:

	Voltage Level	**Current limit**
Float	2,27 Volt/cell @ 20°C	100% of maximum charger output.

Charger Operation after Mains Failure

3.5.1 In the event of the mains failing, an alarm condition must be extended. The batteries must provide load current without any interruption.

Alarm Conditions

3.1.22 An alarm circuit(s), incorporated within the charger, must give a local visual indication as well as having a remote alarm function of the following conditions with the tripping and resetting requirements as shown:

Condition	**Indication**	**Tripping**	**Reset**
Mains failure or charger switched off	Yes	Yes	Self
System over-voltage	Yes	Yes	Manual
Battery over-voltage	Yes	Yes	Manual
Fuse failure	Yes	Yes	Manual
Battery low non-urgent	Yes	No	Self
Battery low urgent	Yes	No	Self
Load shed	Yes	No	Self
Battery temperature High	Yes	No	—
Over current limit	Yes	No	—
DC output circuit breaker tripped	Yes	No	—

3.1.23 Tripping implies that the AC supply contactor must be opened and be kept open until the fault is cleared, either automatically or manually.

3.1.24 The minimum adjustment ranges and respective settings for the different alarms must be as follows:

ALARM	ADJUSTABLE RANGE	SETTINGS
System over voltage	50 - 60	55.5 Volt
Battery over voltage	55 - 70	57 Volt
Battery low non-urgent	45 - 50	48 Volt
Load shed	40 - 50	43.2 Volt
Battery low urgent	44 - 50	47 Volt

3.6.1 For the purpose of remote indication this alarm circuit must be wired to sets of labelled terminals. The contacts used to supply the remote indication must be of the change-over type, with all three contacts wired to terminals and must be capable of carrying a current of 1 ampere.

3.6.2 Should the alarm circuit(s) fail, it must be possible for the charger to operate with the alarm circuit(s) removed.

Indicators

3.1.25 Alarm and operational conditions as well as the state of any PC board mounted relay, must be indicated internally by means of high-brightness type light emitting diodes and /or alphanumeric LCD display.

3.1.26 The following conditions must be indicated externally on the front panel of the charger by means of high-brightness type light emitting diodes or liquid crystal display (with back lighting) or alarms can be viewed on a local craft terminal via the Ethernet connection.

Rectifier in service
Module in float
Module in boost
Mains failure
Current Limited
Fuse failure
System over voltage
Battery high/low urgent
Battery low non-urgent
Rectifier failed
Load shed

3.1.27 A digital DC ammeter and DC voltmeter with digital displays must be provided to indicate respectively the output current and voltage of the charger. The voltmeter will indicate the bus-bar voltage and the boost charging voltage and have an accuracy better than 0, 5%

System Control and Monitoring

3.1.28 The charger must be equipped with management software that is NT, XP based for monitoring and control of the charger(s).

3.1.29 The monitoring unit should detect operating parameters of the rectifying module and send them to the monitoring module for processing and subsequent action. The action may be local or remote alarm indications or control signals fed back to the rectifying module.

3.1.30 The system should be capable of real time monitoring and controlling of the charger, locally or remotely.

3.1.31 The system should allow the control of the following:

Setting up of the rectifier output current limit
Turning on/off of the rectifier module
Alarm indications and to which output the alarm will be routed

3.1.32 The system should monitor the following:

Load voltage
Load current
Battery temperature
Battery charging voltage and current
Input AC voltage

3.1.33 The monitoring system should perform overall control and monitoring of the power supply system, such as setting up system operating parameters, automatically managing batteries, and processing various system operating data.

3.1.34 The monitoring system should detect power supply system failure immediately.

3.1.35 The monitoring module should be equipped with standard communication interfaces, such as RS232. RS485, Ethernet and Web browser by which various power supply centralized monitoring systems can be established.

3.1.36 The monitoring system should operate in dual measurement, display and control mode, so that the power supply system can keep operating even in the case of the monitoring system failure.

Emission & Immunity Limitations

3.1.37 The charger must meet the following CENELEC (European) EMC standards:

EN50081-1	Generic Emission Standard Part-1.
EN50082-2	General Immunity Standard Part-2.
EN300-386-2	ERM, EMC Telecommunications Part-2.
EN61000-4-5	Surge Immunity Tests Part-4, Section-5.

3.1.38 The charger must be provided with smoothing equipment to ensure that the noise level measured at the output terminal or bus-bars is not greater than 1, 6 mV psophometric weighted e.m.f. with the charging equipment in the float voltage mode, with no battery connected and with the rated resistance load connected across the output terminals of the bus-bars. The weighting network must be in accordance with the latest ITU recommendation for commercial trunk telephone circuits. The weighted noise level must not exceed 3 mV psophometric e.m.f. (300 — 3400 kHz).

3.1.39 Any equipment or apparatus connected to the common bus-bars or the power supply must have the same smoothing characteristics as specified for the charger.

3.1.40 The total maximum level of acoustic noise generated by the components of the charger, e.g. transformer hum, under any load conditions must not exceed 55 dB (A) measured at a distance of 1 metre from the side of the charger in any direction. This must be achieved in the design of the components and not by cabinet silencing.

3.1.41 Wide-band noise should not exceed 55 mV (3, 4 —150 kHz) and 25 mV (150 kHz — 30 MHz).

Load Disconnect (Load shed)

3.1.42 The load is to be automatically disconnected (load shed), from the charger, when the battery voltage has dropped to the battery knee voltage (as default use 43.2-volt DC). On restoration of power to the charger, the load must be automatically re-connected when Battery voltage reaches 47.5 volt DC

4. BATTERIES

Battery specifications

4.1.1 Zero maintenance sealed lead acid/AGM/Lithium batteries, suitable for standby power supplies to telecommunication equipment, are required.

4.1.2 The batteries must be designed for a minimum of 1000 deep discharge cycles at a normal temperature of 20°C.

4.1.3 The Battery shall not emit any gases during charges and discharge cycles.

4.1.4 Excellent recovery capability after deep discharge under frequent cyclic discharge

4.1.5 Battery be able to operate up to 80% DOD

4.1.6 Fast recharge capabilities (up to 100A recharge current)

Battery structure

4.1.7 The battery structure must be made of one unit having a capacity <200 Ah ± 10%, totalling 48 V (The Unit can (1 bank) contain four 12V batteries each).4 battery banks are required for the site.

4.1.8 The batteries must be sealed into one anti-theft unit with a minimum weight of 260 kg.

Delivery

4.1.9 Supplier to deliver to site as stated in scope of work.

5. SCHEDULE OF REQUIREMENTS

As per of tender documents

END OF DOCUMENT

TRANSNET RAIL INFRASTRUCTURE MANAGER (TRIM)

Infra Telecoms Requirements and Specifications

for

The Manufacturing, Supply and Installation

Of Insulated Containers

SPECIFICATION NO. BBF1025
June 2011

Revision 1.00

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Manufacturing, Supply and Installation of Insulated Equipment Containers
BBF1025

Document Authorisation

FUNCTION	NAME	TITLE & DIVISION	SIGNATURE	DATE
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Authorised by:	Michael Nuttall	Divisional Manager (Transmission) Telecoms		

I DISTRIBUTION

Once updated, a copy of the latest revision will be published in the document management system in use. An e-mail to this effect will be sent to the relevant personnel or heads of department.

II DOCUMENT CHANGE HISTORY

ISSUE NUMBER	DATE ISSUED	ISSUED BY	HISTORY DESCRIPTION

III CHANGES SINCE LAST REVISION

PARAGRAPH	DESCRIPTION

IV ABBREVIATIONS, ACRONYMS AND DEFINITIONS

ABBREVIATIONS AND ACRONYMS	DESCRIPTION
TRIM	Transnet Rail Infrastructure Manager
AC – DB	AC Distribution Box
DB	Distribution Board
UPS	Uninterruptible Power Supply
PVC	Polyvinyl chloride
Vesconite	A low friction material for long life bearings, designed to operate with little or no greasing – if an alternative is offered it must have similar properties
SABS	SA bureau of standards, Now, Standards SA, (SSA)
CB	Circuit Breaker

1. INTRODUCTION

Infra Telecoms, a division of Transnet, is continuously engaged in an effort to upgrade, supply, install and maintain telecommunication and peripheral equipment for Transnet Rail Infrastructure Manager.

2. SCOPE

This document contains requirements as well as specifications for the manufacturing, supply, delivery and installation of an insulated container. Where there is a conflict between the specification and the schedule of requirement document, the schedule of requirement takes precedence.

3. EQUIPMENT ROOM SIZE

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
3.1	Length (external): 3000 mm		
3.2	Width (external): 2400 mm		
3.3	Height (external): 2500 mm		
3.4	Panel thickness: 75 to 80mm		
3.5	Unless stated otherwise in schedule of requirements		

4. COLOUR

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
4.1	Frost white interior and exterior unless stated otherwise in schedule of requirement		
4.2	Containers will be manufactured from frost white, pre-painted baked Enamel Chromadek panels.		
4.3	Alternatively, if painting is required, the container must be painted in a factory environment (controlled) with a Standards SA approved Nitro Cellulose paint system (Duco or an approved equivalent) in accordance with the manufacturer's instructions.		
4.4	The painting of containers will be done after the surface has been lightly sanded with water paper or abrasive pads and thoroughly washed with Sugar soap.		
4.5	Metal surfaces to be painted must be treated with the appropriate preparation solution prior to painting.		

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5. WALLS

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
5.1	The wall finish shall be 0.6 mm Chromadek-silicone polyester baked enamel sheeting, (exterior and interior) or similar. Fibreglass sheeting is not permitted		
5.2	The insulation shall be a minimum of 75 mm thick, 16 kg/m^3 fire retardant polystyrene. (Polyurethane with similar characteristics could also be proposed.)		
5.3	The wall housing the air conditioners shall be able to sustain a weight of 150 kg.		
5.4	The walls allocated for the AC distribution board, switch–over box and air conditioners shall be able to sustain their weight without distorting the panels		

6. DOOR FRAME AND DOOR

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
6.1	The container door shall be a hinged door opening outward to the right-hand side when facing the container from the outside.		
6.2	The door opening must be 800 mm ± 20 mm wide by 2100 mm ± 20 mm high.		
6.3	The door shall be fitted with the following:-		
6.3.1	An internal stainless steel grade 304 door handle		
6.3.2	A sturdy locking mechanism must be provided for the door in the open position		
6.3.3	An internal, sliding, stainless steel grade 304 barrel lock that locks the door from the inside and prevents the door from being locked from the outside.		
6.3.4	A stainless steel grade 304 locking mechanism with provision for a 12 mm padlock must be provided. An internal three point locking mechanism will be used.		
6.3.5	The lock must be protected from vandalism by a cover / housing preventing easy access to the lock		
6.3.6	A doorstop must be mounted to prevent damage to the equipment room when door is opened		
6.3.7	Full perimeter double silicone gasket water seal must be installed.		
6.3.8	Tamper proof stainless steel grade 304 hinge with a stainless steel pin and a vesconite bush or a 10 mm brass pin.		
6.3.9	Louver for air intake: refer to Item 13.14 (EMERGENCY COOLING)		
6.4	The entire doorframe must be Aluminium and sealed with white exterior polyurethane sealer prior to fixing		
6.5	A 1200 mm long x 50 mm wide Aluminium drip rail must be fitted horizontally 75 mm above the door frame overlapping the door opening evenly on both ends.		

7. ROOF

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
7.1	The roof shall have a pitch falling between 25 mm and 50 mm from the centre to both long sides		
7.2	Alternatively, a 25 mm to 50 mm slope from front to back when facing the door side of the container.		
7.3	All joints in the roof shall be sealed with waterproofing material and will not allow any standing water		
7.4	A lifetime (20 year) guarantee is required on all waterproofed areas. Conditions of guarantee to be specified.		
7.5	The roof and ceiling shall be a single construction and shall be manufactured from 16 kg/m^3 fire retardant Polystyrene (Polyurethane) and clad with 0.6 mm Chromadek-silicone polyester baked enamel sheeting.		
7.6	The ceiling must be parallel with the floor		

8. FEEDER CABLE ENTRY PANEL

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
8.1	A recessed, angled, entry panel shall be provided. Refer to *Schedule of requirements for individual container entry panel positions*).		
8.2	A vertical Aluminium strip of 2 mm x 100 mm must connect the entry plate to the stainless steel frame at the base of the container.		
8.3	Allowance must be made for feeder entry from under floor entry for underground cables. This will be specified in the schedule of requirements if required.		
8.4	The feeder entry panel must be sealed with white exterior Polyurethane and pop riveted into place uniformly		
8.5	. Entry panel must make provision for a minimum of twelve, N type female bulkhead adaptors (16,2 mm diameter with flat sides 13,7 mm).		
8.6	Holes must be spaced to facilitate easy coupling of cables.		
8.7	Holes must be plugged with water proof plugs.		
8.8	Cable entry must be water tight.		
8.9	An Aluminium right angle strip 50 x 50 x 300 mm shall be fitted either on top or below the feeder entry panel to support the cable tray.		
8.10	The strip must be earthed (connected) to the entry plate.		

9. BASE FRAME

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
9.1	The base frame of the container will be constructed from the following material:		
9.2	The frame shall be constructed using a minimum of 2 mm thick grade 304 stainless steel.		
9.3	The method of construction of the base frame shall be welding.		
9.4	All welding on base frames must be of a high quality with no undercuts and lack of fusion.		
9.5	All frames shall be properly cleaned and shall be free of weld spatter, arc strikes etc.		
9.6	After welding and cleaning all Stainless Steel components shall be pickled and passivated. The frame will not allow any water entrapment and will have adequate drainage holes.		
9.7	If C channel is used, it must face inwards.		
9.8	The frame of a 3.0 x 2.4m container shall be supported on six legs.		
9.8.1	The frame of a 2.4 x 2.4m container shall be supported on four legs.		
9.9	The legs must allow a minimum height of 200 mm between the container slab and the bottom of the frame.		
9.10	A 50 mm x 13 mm slot in the leg will allow for adjustments on site.		
9.11	Two M12 x 40mm stainless steel bolts, nuts and washers must be used to secure the legs in position.		
9.12	Each leg must have a 200 mm x 200 mm x 4.5 mm thick grade 304 stainless steel foot plate welded in the central position of the leg.		
9.13	One 12mm hole must be drilled in each foot plate, the corner footplates will have the hole drilled in the corner		
9.14	The middle adjustment legs shall have a hole drilled in the centre of the leg foot plate.		
9.15	The holes must be approximately 30 mm from the outside edge.		

9.16	The leg assemblies shall be constructed using minimum 3 mm thick grade 304 stainless steel.		
ITEM	**DESCRIPTION**	**COMPLY YES/NO**	**REMARKS**
9.17	All Stainless-Steel components must be Pickled and Passivated after manufacture.		
9.18	The portion of the leg welded to the base frame shall have a return bend to ensure that the leg does not distort.		
9.19	Three 11 mm holes must be drilled in the frame, in line with entry panel earthing to the frame for earth connecting points.		
9.20	All the fasteners i.e. bolt, nuts and washers shall be stainless steel.		
9.21	Pop rivets will be Full Stainless-Steel water sealed pop rivets.		
9.22	A jig must be used during the construction of the frame to ensure reliable geometric tolerances (L/500 where L = length in millimetres).		
9.23	If a base frame is manufactured in more than one section all sections will be interchangeable with each other. The squareness of the frame must be +/- 5mm across diagonals.		
9.24	A registered Professional Engineer must certify that the design of the base frame meets or exceeds all requirements of this specification (i.e. loading, and deflection).		

10. FLOOR

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
10.1	The floor shall be constructed as follows:		
10.2	The floor shall be a suspended floor capable of carrying 1000 kg/m^2, and shall have a maximum deflection of L/300 under full load		
10.3	The floor will be constructed from minimum 6 mm Aluminium “vastrap”/ checked plate. (This is the preferred option)		
10.3.1	Alternatively, the floor can be constructed from minimum 18mm Maranti marine ply as per British standard specification 1088 subject to the wood being correctly treated and coated with fibreglass to prevent moisture damage. The floor must be covered with minimum 3mm aluminium checked plate or durable 2mm vinyl sheeting. **Option being offered must be specified**		
ITEM	**DESCRIPTION**	**COMPLY YES/NO**	**REMARKS**
10.4	The finish between the floor and the interior walls, as well as the roof and the interior walls, will be 20 x 20 x 2 mm Aluminium edging, fixed with pop rivets and sealed with white polyurethane sealer. This is mainly for aesthetics.		

11. MARKINGS

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
11.1	Serial and model numbers for the containers must be on a metal (aluminium) name plate and attached to the outside container chassis in the centre of the doorway.		
11.2	Manufacturers Branding will be restricted to the top left hand corner of the door. The size of the manufacturers branding will be limited to 200 x 200 mm, and must be manufactured from either aluminium or stainless steel. No further branding will be permitted.		

12. ELECTRICAL

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
12.1	Change over switch:		
12.1.1	The mains feed must be connected via an externally mounted box containing the mains / standby change over switch with all lightning protection and required circuitry. The box must be fitted with a universal socket to accommodate a single phase generator		
12.2	Internal fluorescent light fitting and tubes		
12.2.1	Two standards SA approved, (SABS) 1500 mm double tube fluorescent light fittings, complete with 65 watt, cool white tubes, to be fitted in the centre of the container lengthwise, 450 mm from the front and back of the container as per figure 3.		
12.2.2	A 4-lever light switch must be mounted inside the container next to the door approximately 1400mm above the floor for internal and external lights.		
12.2.2.1	Top switch for internal lights, second for external light via sensors, third for external light override and fourth for future use		
12.3	External light fitting, Compact Fluorescent Lamp:		
12.3.1	A single round external 2 x 9 W (with PL9 tubes) watertight bulkhead fluorescent light fitting shall be fitted above the drip rail as per figure 1.		
12.3,2	The Bulkhead light fitting shall have a die-cast Aluminium base, and the diffuser shall be UV stabilised.		
12.3.3	Light will be controlled via a light switch in series with a day/Night sensor and an infrared movement sensor.		
12.3.4	An over- ride switch must be able to switch the light on and off as and when required.		
12.3.5	See 12.2.2.1 for light switch positions		
12.4	All electrical wiring must comply with the latest Standards SA, standards and specifications:		

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
12.5	Mains Plug sockets:		
12.5.1	All AC power sockets are to be fitted flush up against the trunking and must be secured with a lock nut and bush/PVC male adaptor.		
12.5.2	Power duct equipped with eight, double, 16amp, switched, 220 VAC, outlet sockets (Two separate feeds, feeding four outlets each)		
12.5.3	Standing in the doorway facing the inside of the container:		
12.5.3.1	Two sockets to be fitted in the centre of the rear wall duct		
12.5.3.2	One socket must be mounted on the right, 2.4m wall, 450mm from the front wall		
12.5.3.3	Three sockets must be mounted on the right 2.4m wall, 450mm from the rear wall		
12.53.4	Two sockets must be mounted on the left, 2.4m wall, 450mm from each corner of the container		
12.5.4	All joints in the ducting must be done with a Mitre Tool and all joints must fit with no gaps.		
12.6	A single phase, alternating current, distribution board (AC - DB) must be mounted securely against the left, 2.4m wall of the container as indicated on figure 2 or as indicated in the schedule of requirements:		
12.6.1	The board to be equipped as follows:		
12.6.1.1	1 x 63 A isolator switch		
12.6.1.2	1 x 40A, 300mA, earth leakage unit		
12.6.1.3	2 x 16A circuit breakers (CB) for the mains outlet sockets,		
12.6.1.4	1 x 10 A CB for lights		
12.6.1.5	1 x 10 A CB for the extractor fan		
12.6.1.6	2 x 16A CB for the air conditioners		
12.6.1.7	Lightning protection between live, neutral and earth		

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
12.6.2	Lightning protection modules must indicate visual condition status		
12.7	Equipment Room earth:		
12.7.1	A central Earth bar 400 mm (L) x 4 mm (T) x 25 mm (W) must be supplied and installed in the container in the position as indicated on figure 2 or in the best practical position.		
12.7.2	At least 10 x 8 mm holes must be made in the earth bar for various earth connections of equipment. 10 x 8 mm copper bolts and nuts must be provided.		
12.7.3	The earth bar must be mounted horizontal/vertical against the wall, a minimum of 200 mm above the container floor with two stand-off isolators and secured properly with copper locking washers.		
12.7.4	An earth must be connected from the earth collector bar in the AC – DB to the earth buzz bar in the container The earth connection must be an insulated (Yellow/Green) 16 mm² earth cable.		
12.7.5	An insulated earth cable must be connected from the earth buzz bar in the container to the Stainless steel frame at the base of the container. The earth connection must be an insulated (Yellow/Green) 16 mm² earth cable.		
12.7.6	An insulated earth cable must be connected from the earth buzz bar in the container to the Entry Plate. The earth connection must be an insulated (Yellow/Green) 16 mm² earth cable.		
12.7.7	Provision must be made to connect an external 60 – 100 mm² earth cable to the stainless steel frame from the ultimate site's earth mat.		
12.7.8	The cable trays must be connected to the earth bar.		

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
12.8	Electrical Certificate of Compliance:		
12.8.1	A certificate of compliance must be issued for the container and all other electrical work undertaken.		
12.8.2	The certificate is to be handed over with the site / container commissioning.		
12.8.3	An accredited person must sign the certificate.		
12.8.4	The certificate must indicate the company logo and the accredited person's name must be clearly printed in block letters.		

13. AIR CONDITIONING

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
13.1	Two 900 BTU Air-conditioner systems, cooling only, with extractor fan with gravitational louver system to be installed in the rear wall		
13.2	The air conditioners must be protected against theft with a vandal proof cage mounted on the outside of the container securing the air conditioners.		
13.3	The air conditioner must only be removable from the inside of the container.		
13.4	Cut-outs must be sealed with white exterior polyurethane sealer.		
13.5	The vandal proof cage must be hot-dipped galvanised and powder coated to the same colour as the container, i.e. white.		
13.6	The air-conditioners must be mounted to the rear wall of the container in the positions indicated in figure 4		
13.7	The weight of the conditioners must not distort the wall panels.		
13.8	The air conditioners must restart automatically after a power disruption with a 30 to 45 second delay in order to prevent power overload and surge spikes.		
13.9	The second air conditioner may only start up 10 seconds after the first.		
13.10	Each air conditioner must be fed from it's own circuit breaker and isolator switch		
13.11	The air conditioners must be wired so that the primary unit controls the temperature		
13.12	The secondary unit remains on standby until it is switched on via a temperature controlled switch set at 26 degrees Celsius or activated via an override switch		
13.13	The temperature controlled switch must be adjustable between at least 20 and 35 degrees Celsius.		

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
13.14	Emergency Cooling:		
13.14.1	Forced ventilation to be provided with a single, temperature controlled, 220 volt AC, extractor fan mounted in the rear wall.		
13.14.1.1	The temperature switch must be adjustable between at least 20 and 45 degrees Celsius		
13.14.2	The air intake vents in the door must be designed so as to be secure and not allow rain into the container		
13.14.3	The ventilation openings shall be equipped with dust filters supported with wire mesh		
13.14.4	Dust filters must be easily accessible for replacement and cleaning of filter material.		
13.14.5	Natural airflow should be possible in the event of extractor fan failure.		
13.14.6	The cut-outs for the air intake louver and fan housing must be sealed with white exterior polyurethane sealer.		

14. CABLE TRAY

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
14.1	Cable tray, 300mm, must be installed vertically from the cable entry panel and horizontally along the centre of the container.		
14.2	The cable tray must be mounted approx. 200mm below the ceiling.		
14.3	The cable tray must be high enough to accommodate a 38U cabinet below it. A 38U cabinet is approx 1,94 m high.		
14.4	A 25mm wide flat copper strip must run the length of the cable tray and be connected to the entry panel		

15. WARRANTY

ITEM	DESCRIPTION	COMPLY YES/NO	REMARKS
15.1	Warranty period, terms and conditions must be specified for container		
15.2	Warranty period, terms and conditions must be specified for all work undertaken		

Figure 1: CONTAINER FRONT VIEW

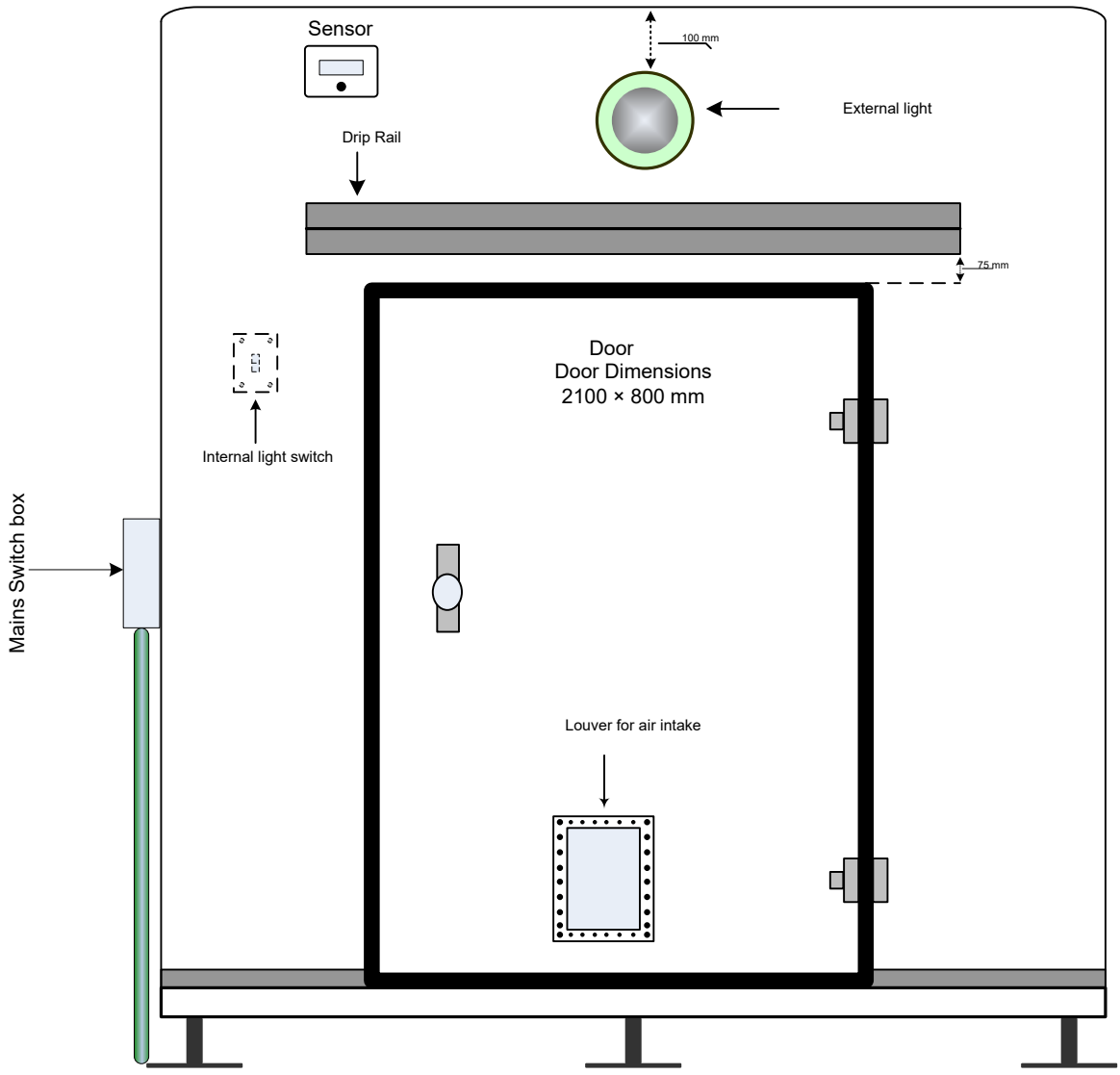


Figure 1: Container front view

Figure 2: EQUIPMENT HOUSING

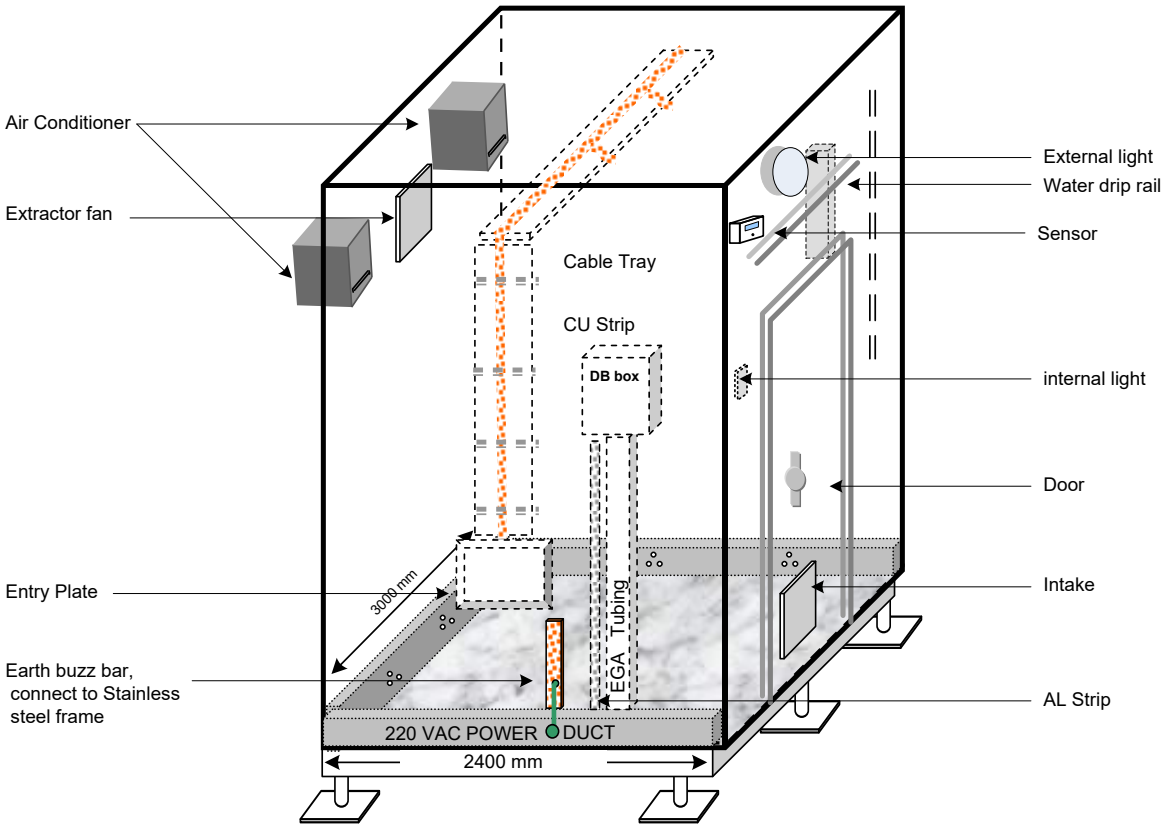


Figure 2: Equipment Housing

Figure 3: CONTAINER TOP VIEW

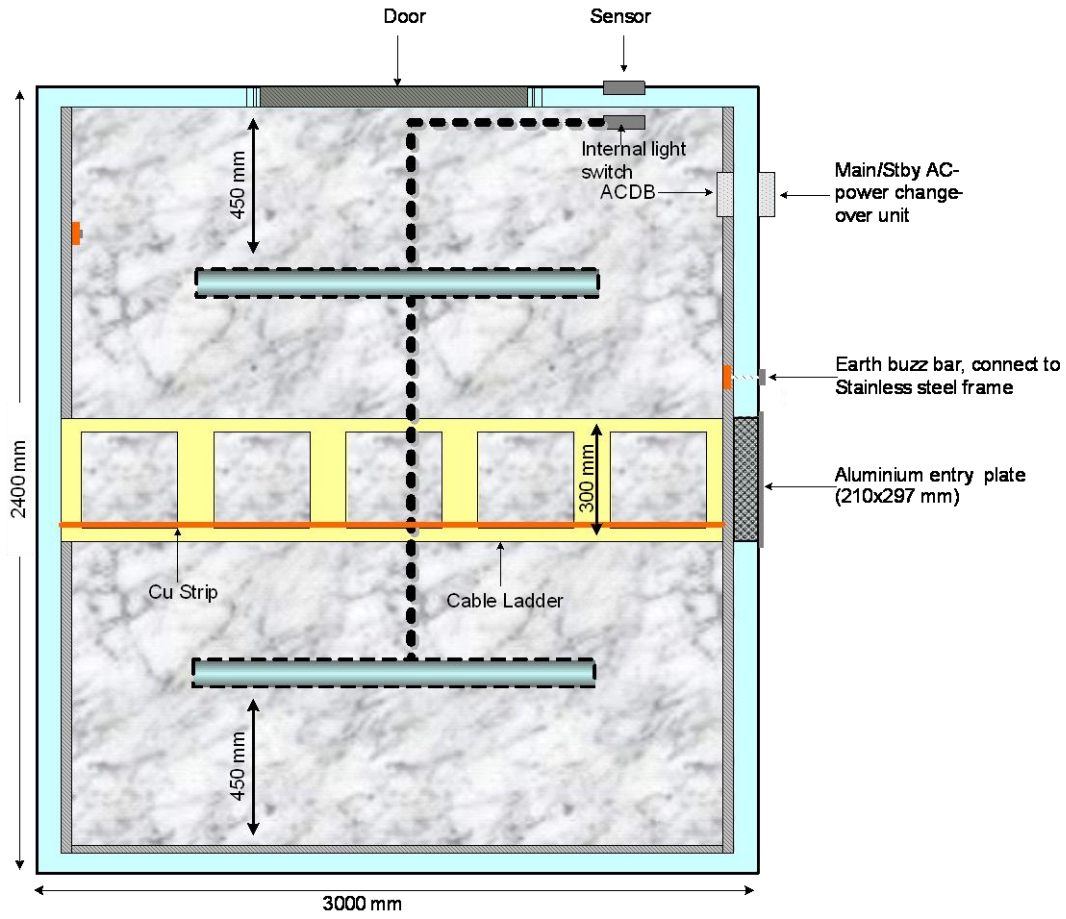


Figure 3: Container Top View

Figure 4: CONTAINER BACK VIEW

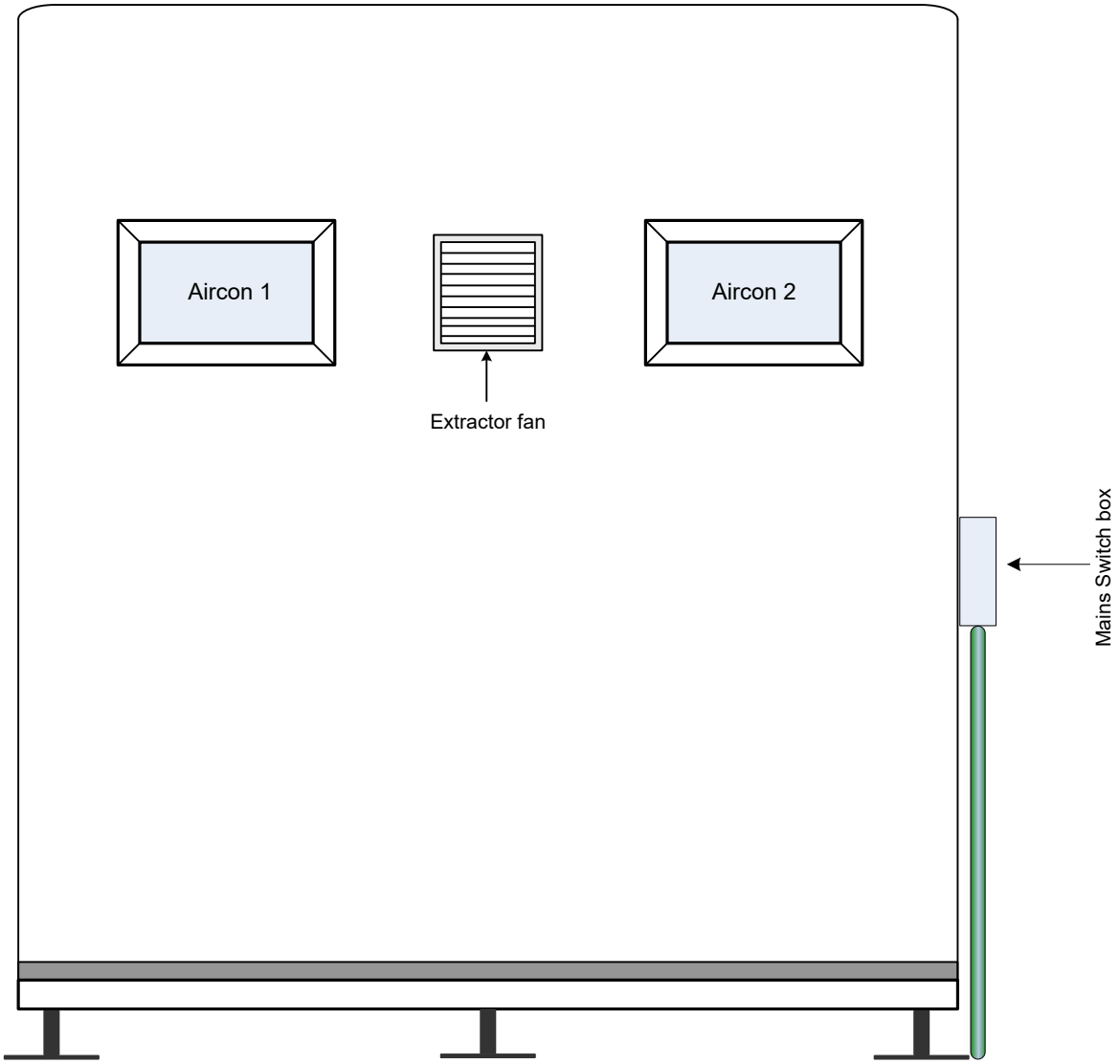


Figure 4: Container back view

16. SCHEDULE OF REQUIREMENTS ITEM 1 – HORIZON SAPS SITE

Corner: Kite – Gull St. & Swan circle Horizon ext1 Roodepoort S26 08 27,09 E27 52 46,86

Item	Qty	Description	Unit cost	Total cost (excl vat)	Remarks
1.1	1	Manufacture and supply of a 2.4x 2.4 x 2.5m (LxBxH) equipment container as per attached specification			
1.1.1		Cable entry panel will be in the left, 2.4m wall, facing the door from the outside of the container. Exact location will be determined at site visit			
1.1.2		Electrical switch-over box will be on the left side 2.4m wall towards the front			
1.1.3		Container earth point to mast and electrical earth will be on the left side			
1.1.4		AC DB box must be installed on the left 2.4m wall in line with the switch-over box			
1.2	1	Transport and placement (setting up) of container on site.			
1.3	1	Construction of concrete plinth (LxBxH) 3400 x 3900mm x 200mm min. as per attached specification			
1.4	1	Installation of covered cable gantry between mast and container to match existing gantry as indicated at site visit			
1.5	1	Supply, trenching, connecting mains cable feed between supply and container. To be discussed at site meeting			
1.6	1	Supply, trenching, connecting, mast and electrical earth to container. To be discussed at site meeting			
1.7	1	Certificate of compliance to be issued for all electrical and electrical earth work undertaken			
1.8	1	Tenderer must ensure that best safe practices are applied at all times. Adherence to both, South African Police Services (SAPS) and Transnet's codes of safety are essential.			

Item	Qty	Description	Unit cost	Total cost (excl vat)	Remarks
1.9	1	Sundries, to be specified by tenderer			
1.9.1					
1.9.2					
1.9.3					
1.9.4					
1.9.5					
1.9.6					
1.9.7					
1.9.8					
2.0		All work must be completed before 28th February 2012			

17. SCHEDULE OF REQUIREMENTS ITEM 2 - JABULANI SAPS SITE

Jabulani Soweto S26 14 53,58 E27 51 30,9 (off Link Rd)

Item	Qty	Description	Unit cost	Total cost (excl vat)	Remarks
1.1	1	Manufacture and supply of a 3 x 2.4 x 2.5m (LxBxH) equipment container as per attached specification			
1.1.1		Cable entry panel will be in the left, 2.4m wall facing the door from the outside of the container. Exact location will be determined at site visit			
1.1.2		Electrical switch-over box will be on the left side 2.4m wall towards the front			
1.1.3		Container earth point to mast and electrical earth will be on the left side			
1.1.4		AC DB box must be installed on the left 2.4m wall in line with the switch-over box			
1.2	1	Transport and placement (setting up) of container on site.			
1.3	1	Construction of concrete plinth (LxBxH) 4.0 x 3.9m x 200mm min. as per attached specification			
1.4	1	Installation of covered cable gantry between mast and container to match existing gantry as indicated at site visit			
1.5	1	Supply, trenching, connecting mains cable feed between supply and container. To be discussed at site meeting			
1.6	1	Supply, trenching, connecting, mast and electrical earth to container. To be discussed at site meeting			
1.7	1	Certificate of compliance for all electrical and earthing work undertaken			
1.8	1	Tenderer must ensure that best safe practices are applied at all times. Adherence to both the South African Police Services (SAPS) and Transnet's codes of safety are			

		essential.			

Item	Qty	Description	Unit cost	Total cost (excl vat)	Remarks
1.9	1	Removal of existing 3 x 3 m metal container from site			
1.9.1		Demolish existing plinth, remove rubble, restore site to natural state			
2.0		Sundries: to be specified by tenderer			
2.1					
2.2					
2.3					
2.4					
2.5					
2.6					
2.7					
2.8					
3.0		All work must be completed before 28th February 2012			

Financial Detail: Warrant S092

WBS Number

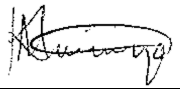
Horizon: U 0279.03.S092.05.01

Jabulani: U 0279.03.S092.06.01

Rob Yates	Graeme Daly	Danie Botha
Technical Manager	Divisional Manager	Chief Engineer
Access	Access	Telecoms
Date	Date	Date

RAIL NETWORK TELECOMMUNICATIONS

DC Backup system specification

FUNCTION	TITLE & DIVISION	NAME	SIGNATURE	DATE
Author	Engineer in training Radio Access Network	Neël Swanepoel		2021/11/18
Reviewed:	Chief Engineering Technician Quality Assurance	Khunjulwa Mniniyo		2021/11/19
Authorised	Senior Engineer Radio Access Network	Asanda Nkomane		2021/11/22
Approved:	Principal Engineer Radio Access Network	Muhumbulo Mmbengwa		26.11.2021

Circulation Restricted To:

Rail Network Telecoms

Transnet Freight Rail

Transnet and Relevant Third Parties

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I. DISTRIBUTION

Once updated, a copy of the latest revision will be published in the document management system in use. E-mail to this effect will be sent to the relevant personnel or heads of department.

II. DOCUMENT CHANGE HISTORY

ISSUE NO.	DATE ISSUED	ISSUED BY	HISTORY DESCRIPTION

III. CHANGES SINCE LAST REVISION

CLAUSES	DESCRIPTION

IV. ABBREVIATIONS, ACRONYMS AND DEFINITIONS

ABBREVIATIONS AND ACRONYMS	DESCRIPTION
A	Ampere
AC	Alternating Current
Ah	Amp Hours
BMS	Battery Management System
C	Battery Capacity (Amp-hours)
CAN	Controller Area Network (Communication Protocol)
dB (A)	Sound Pressure A-weighted
DC	Direct Current
DOD	Depth Of Discharge
EMC	Electromagnetic compatibility
e.m.f.	Electromotive Force
GPS	Global Positioning System

ABBREVIATIONS AND ACRONYMS	DESCRIPTION
IEC 62262	Protection provided by enclosures for electrical equipment against external mechanical impacts
IP	Ingress Protection
ISO	International Organization for Standardization
ISO 9001	International Standard for a Quality Management System
ITU	International Telecommunications Union
kg	Kilogram
kHz	Kilohertz
MHz	Megahertz
mA	Milliampere
mm	Millimeter
ms	Millisecond
mV	Millivolt
PCB	Printed Circuit Board
PV	Photovoltaics
RoHS	Restriction of Hazardous Substances
RS485, RS232	Communication Protocols
s	Seconds
U	Rack Measurement (1U – 44.5mm)
USB	Universal Serial Bus
V	Volts
VAC	Volts of Alternating Current
VDC	Volts of Direct Current
W	Watt

V. RELEVANT DOCUMENTATION

DOCUMENT NO.	DESCRIPTION	LOCATION
ISO 9001:2015	Quality Management Systems	External
MIL-STD 810F	Environmental Engineering Considerations and Laboratory Tests	External
UL 94	Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing	External
IEC 62262	Degrees of Protection Provided by Enclosures for Electrical Equipment Against External Mechanical Impacts (IK Code)	External
CENELEC (European) EMC	Electromagnetic Compatibility Directive	External
IP20	Protected from touch by fingers and objects greater than 12 millimetres. Not protected from liquids.	External
IP68	Protected from total dust ingress. Protected from long term immersion up to a specified pressure.	External

1. GENERAL

1.1. SCOPE

1.1.1. This specification contains the operational requirements and technical specifications for the supply of a complete DC backup system.

1.2. COMPLIANCE AND STANDARDS

1.2.1. RoHS certification
1.2.2. Compliance to ISO 9001 quality standards
1.2.3. Compliance with MIL-STD 810F test methods with detailed results.
1.2.4. Compliance with UL 94 standard for safety of flammability of plastic materials
1.2.5. Compliance with IEC 62262 standard for impact resistance.
1.2.6. Compliance with CENELEC (European) EMC standards

2. OPERATIONAL REQUIREMENTS

2.1. GENERAL

2.1.1. All the technical specifications relating to electrical requirements listed in section three of the document should be met.
2.1.2. All the technical specification relating to monitoring/communication requirements listed in section three of the document should be met.
2.1.3. High quality materials should be used in the construction of the batteries, enclosures, controllers, inverters, rectifiers and solar controllers.
2.1.4. All specifications must be supplied with relevant test results to confirm compliance to the required specification.
2.1.5. All electrical requirements need to adhere to the relevant standards and certifications, and test methods listed in section one of the document.
2.1.5.1. All products need to be ROHS certified
2.1.5.2. Any manufacture of batteries, enclosures, controllers, inverters, rectifiers and solar controllers need to be ISO 9001 certified in all aspects of the ISO9001:2015 standard
2.1.5.3. All electrical systems within the DC backup system needs to be tested according to the following MIL-STD 810F test methods:

- Test Method 501.6 High Temperature
- Test Method 502.6 Low Temperature
- Test Method 503.6 Temperature Shock
- Test Method 507.6 Humidity

2.1.5.4. All electrical systems in the DC backup system needs to be certified and classified as a 94V-0 according to the UL 94-HB standard

2.1.5.5. All electrical systems in the DC backup system needs to be certified and classified according to the CENELEC (European) EMC standards:

- EN50081-1 Generic Emission Standard Part-1.
- EN50082-2 General Immunity Standard Part-2.
- EN300-386-2 ERM, EMC Telecommunications Part-2.
- EN61000-4-5 Surge Immunity Tests Part-4, Section-5.

2.1.6. All the technical specifications relating to mechanical requirements listed in section three of the document should be met.

2.1.7. All DC backup systems must be supplied with relevant mounting hardware; the mounting hardware needs to be adaptable, as rack configuration will vary around the country.

2.1.8. All charge controllers and inverters for AC fed and solar fed DC backup system needs to be modular. The system should consist of the following modules:

- Inverter module (Both AC & Solar fed)
- Rectifier module/ Battery charge controller (AC fed)
- Solar charge controller (Solar fed)

2.1.9. The charge controllers and inverter modules must support different power requirements from the DC backup power system by adding/removing modules.

2.1.10. All mechanical requirements need to adhere to the relevant standards and test methods listed in section one of the document.

2.1.10.1. Any manufacture of batteries, enclosures, controllers, inverters, rectifiers and solar controllers needs to be ISO 9001 certified in all aspects of the ISO9001:2015 standard

2.1.10.2. All mechanical systems within the DC backup system needs to be tested according to the following MIL-STD 810F test methods:

- Test Method 501.6 High Temperature

- Test Method 502.6 Low Temperature
- Test Method 503.6 Temperature Shock
- Test Method 507.6 Humidity
- Test Method 505.6 Solar Radiation (Sunshine)
- Test Method 506.6 Rain
- Test Method 516.7 Shock
- Test Method 514.7 Vibration

2.1.10.3. All mechanical systems need to be impact tested according to IEC 66262 standard and need to be IK07 rated.

2.1.11. All the technical specifications relating to environmental requirements listed in section three of the document should be met.

2.1.12. All DC backup systems should be durable for South African weather conditions and operate in humid and salty environments.

2.1.13. All environmental requirements need to adhere to the relevant standards and test methods listed in section one of the document.

2.1.13.1. Any manufacture of batteries, enclosures, controllers, inverters, rectifiers and solar controllers needs to be ISO 9001 certified in all aspects of the ISO9001:2015 standard.

2.1.13.2. All DC backup system components needs to be IP20 rated and tested according to the following MIL-STD 810F test methods:

- Test Method 501.6 High Temperature
- Test Method 502.6 Low Temperature
- Test Method 503.6 Temperature Shock
- Test Method 507.6 Humidity
- Test Method 524.1 Freeze / Thaw
- Test Method 505.6 Solar Radiation (Sunshine)
- Test Method 506.6 Rain
- Test Method 516.7 Shock
- Test Method 514.7 Vibration
- Test Method 518.2 Acidic Atmosphere
- Test Method 504.2 Contamination by Fluids

2.2. CONTROLLER AND ENCLOSURE

2.2.1. All technical requirements listed in section three of this document should be met.

2.2.2. The following conditions must be indicated externally on the front panel of the controller by means of high brightness type display (with back lighting)

- 2.2.2.1. Load voltage
- 2.2.2.2. Load current
- 2.2.2.3. Input AC voltage
- 2.2.2.4. Output AC voltage
- 2.2.2.5. Mains failure
- 2.2.2.6. Battery charging voltage and current
- 2.2.2.7. Input DC voltage
- 2.2.2.8. Rectifier failed
- 2.2.2.9. System over voltage
- 2.2.2.10. Current limited
- 2.2.2.11. Fuse failure
- 2.2.2.12. Input PV voltage
- 2.2.2.13. Solar controller failed
- 2.2.2.14. Load shed

2.2.3. Alarm and operational conditions as well as the state of any PC board mounted relay, must be indicated externally by means of high-brightness display.

2.2.4. The enclosure needs to accommodate at least 4 system modules with the option to expand the module in sets of 4 modules if required.

2.3. BATTERIES

2.3.1. All supplied batteries should come with a warranty of a minimum of 10 years given the charge cycles are less than 3500.

2.3.2. The battery should include a fully integrated battery management system (BMS) which can monitor and control any parameters of the battery system.

2.3.3. The BMS should support all mainstream communication protocols which are used to integrate with various chargers, rectifiers and solar controllers.

2.3.4. The BMS must be able to precisely control the charging algorithm that is applied to battery cells.

2.3.5. The BMS should be able to able to monitor the health and charging cycles of the battery system.

2.3.6. The battery system should include an anti-theft mechanism built into the system which can be enabled once a battery is stolen.

2.3.7. GPS location device to track stolen items.

2.4. INVERTER MODULE

2.4.1. The technical specifications of the inverter listed in section 3 of the document is for one individual inverter module.

2.4.2. The inverter must be modular to enable expansion to increase the overall power output and must have current sharing capabilities.

2.4.3. The inverter should support the other components/modules in the DC backup power system.

2.4.4. The inverter module should support both an AC fed system as well as an off-grid solar system.

2.4.5. The inverter module must supply a smooth pure sine wave AC output from the DC battery power supply.

2.4.6. The inverter must be equipped with a management system allowing both local and remote control of the power system from a computer.

2.4.7. Alarm and operational conditions as well as the state of any PC board mounted relay, must be indicated internally by means of high-brightness type light emitting diodes.

2.5. RECTIFIER MODULE

2.5.1. The technical specifications of the rectifier listed in section three of the document is for one individual rectifier module.

2.5.2. The rectifier must be modular to enable expansion to increase the overall power output and must have current sharing capabilities.

2.5.3. The rectifier should support the other components/modules in the DC back power system.

2.5.4. Once the mains have restored after a mains failure the rectifier should recharge at the battery manufacturer's prescribed rate listed in section three of the document.

2.5.5. The rectifier must be capable of continuous operation on full load, variable mains voltage and frequency variations under the specified climatic conditions.

2.5.6. The rectifier must be equipped with a management system allowing both local and remote control of the power system from a computer.

2.5.7. The rectifier must be capable of supplying the full rated load (100%), but must be inherently current-limited to protect it against overload from 100% of the nominal rated current up to a short circuit without disconnecting the charger from the mains, blowing fuses or tripping circuit breakers.

2.5.8. Alarm and operational conditions as well as the state of any PC board mounted relay, must be indicated internally by means of high-brightness type light emitting diodes.

2.5.9. The rectifier must be provided with smoothing equipment to ensure that the noise level measured at the output terminal or bus-bars is not greater than 1, 6 mV psophometric weighted e.m.f. with the charging equipment in the float voltage mode, with no battery connected and with the rated resistance load connected across the output terminals of the bus-bars. The weighting network must be in accordance with the latest ITU recommendation for commercial trunk telephone circuits. The weighted noise level must not exceed 3 mV psophometric e.m.f. (300 — 3400 kHz).

2.5.10. Any equipment or apparatus connected to the common bus-bars or the power supply must have the same smoothing characteristics as specified for the rectifier.

2.5.11. The total maximum level of acoustic noise generated by the components of the rectifier, e.g. transformer hum, under any load conditions must not exceed 55 dB (A) measured at a distance of 1 metre from the side of the charger in any direction. This must be achieved in the design of the components and not by cabinet silencing.

2.5.12. Wide band noise should not exceed 55 mV (3, 4 —150 kHz) and 25 mV (150 kHz — 30 MHz).

2.6. **SOLAR CONTROLLER**

2.6.1. The technical specifications of the solar controller listed in section three of the document is for one individual controller module.

2.6.2. The solar controller must be modular to enable expansion to increase the overall power output and must have current sharing capabilities.

2.6.3. The solar controller should support the other components/modules in the DC backup power system.

2.6.4. Once the mains have restored after a mains failure the solar charge controller should recharge at the battery manufacturer’s prescribed rate listed in section 3 of the document.

2.6.5. The solar charge controller must be capable of continuous operation on full load and variable PV voltage and or frequency variations under the specified climatic conditions.

2.6.6. The solar charge controller must be equipped with a management system allowing both local and remote control of the power system from a computer.

2.6.7. The solar controller must be capable of supplying the full rated load (100%), but must be inherently current-limited to protect it against overload from 100% of the nominal rated current up to a short circuit without disconnecting the charger from the mains, blowing fuses or tripping circuit breakers.

2.6.8. Alarm and operational conditions as well as the state of any PC board mounted relay, must be indicated internally by means of high-brightness type light emitting diodes.

2.7. **SOLAR PANELS**

2.7.1. All solar panels should have a minimum warranty of 12 years.

3. TECHNICAL SPECIFICATIONS

3.1. GENERAL (ENCLOSURE AND CONTROLLER)

3.1.1. Electrical

3.1.2. Monitoring/communication

3.1.2.1. Communication protocol: RS485, CAN-bus, USB, RS232, Ethernet

3.1.2.2. Battery management: Integration with BMS

3.1.3. Mechanical

3.1.3.1. Terminal type input: M8 Connecters (AC, Batteries) MC4, M8 (Solar panels)

3.1.3.2. Physical size: Width: 482.6 mm (19”) Height: 178 mm (4U) Depth: 500 mm (with terminals)

3.1.3.3. Weight: ≤15 Kg

3.1.4. Environmental

3.1.4.1. Operating temperature: -10°C to +60°C

3.1.4.2. IP rating: IP20

3.1.4.3. Humidity: Up to 95%

3.1.4.4. Cooling: Natural cooling

3.2. BATTERIES

3.2.1. Electrical

3.2.1.1. Nominal voltage: 48 VDC

3.2.1.2. Discharge voltage: 48V (Minimum)

3.2.1.3. Charge voltage: 52-54 VDC

3.2.1.4. Capacity: 100 AH (Minimum)

3.2.1.5. Charge cycles: >3500 Cycles (90% DOD)

3.2.1.6. Charge current: 30-50 A

3.2.1.7. Discharge current: 30-50 A

3.2.1.8. Self-discharge rate: <1% per month

3.2.1.9. Short circuit protection: 400<2ms

3.2.2. Monitoring/communication

3.2.2.1. Communication protocol: RS485, RS232, CAN

3.2.3. Protection

3.2.3.1. Isolator: Dependant on battery capacity (For 100Ah, 200A isolator)



3.2.3.2. In-line fuse: 150 A

3.2.3.3. Over-current protection: 150 A

3.2.4. Mechanical

3.2.4.1. Physical size: Width: <=482.6 mm (19" Rack)
Height: <= 178 mm (4U)
Depth: <=500 mm (W/terminal connection)

3.2.4.2. Terminal type: M8 Bolt terminals

3.2.4.3. Weight: <=60 kg per unit

3.2.5. Environmental

3.2.5.1. Operating temperature range: -10°C to +60°C

3.2.5.2. Humidity: 5% - 95 %

3.2.5.3. Protection: IP20

3.2.5.4. Cooling: Natural cooling

3.3. **INVERTER MODULE**

3.3.1. Electrical

3.3.1.1. Output voltage: 230 VAC ±10 %

3.3.1.2. Output waveform: Pure sine wave

3.3.1.3. Output power: 2000 W

3.4. **RECTIFIER MODULE**

3.4.1. Electrical

3.4.1.1. Input voltage: 230 VAC ±10 %

3.4.1.2. Input power: 48 VDC

3.4.1.3. Battery voltage: 48 VDC

3.4.1.4. Battery type: LiFePO4 (Lithium Phosphate), Lead Acid, Zinc Bromine

3.4.1.5. Charging algorithm: 3-stage (Bulk, absorption, float)

3.4.1.6. Charge current (Maximum): 0.5C A (C = Battery capacity in AH)

3.4.1.7. Charge voltage 'float': (Charge current) × (4 V)

3.4.1.8. Efficiency: ≥92%

3.4.1.9. Peak power: 7200 W (2 s)

3.4.1.10. Self-consumption: ≤20 mA

3.4.1.11. Output voltage: 48 VDC

3.4.1.12. Output power: 2000 W

3.5. SOLAR CONTROLLER

3.5.1. Electrical

3.5.1.1. Battery voltage: 48 VDC

3.5.1.2. Battery type: LiFePO4 (Lithium Phosphate), Lead Acid, Zinc Bromine

3.5.1.3. Charge current: 0.5C A (C = Battery capacity in Ah)

3.5.1.4. Charge power: (Charge current) × (54 V)

3.5.1.5. Charge voltage 'float': 54 VDC

3.5.1.6. Efficiency: ≥92%

3.5.1.7. Self-consumption: ≤20 mA

3.5.1.8. Solar controller: MPPT Solar Charge Controller

3.6. SOLAR PANELS

3.6.1. Electrical

3.6.1.1. Output voltage: >=40 VDC

3.6.1.2. Output current: >=10 A

3.6.1.3. Nominal maximum power: >= 450 W

3.6.1.4. Efficiency: >= 20%

3.6.1.5. Open circuit voltage: >=50 VDC

3.6.1.6. Short circuit current: <=11 A

3.6.1.7. Connector type: MC4 Connectors

3.6.2. Mechanical

3.6.2.1. Physical size: Length: <=2100 mm
Width: <=1100 mm
Height: <=50 mm

3.6.2.2. Weight: <=25 kg

3.6.2.3. Front cover: High impact resistant reinforced glass

3.6.2.4. Frame type: Anodized aluminium (Corrosion resistant)

3.6.3. Environmental

3.6.3.1. Operating temperature: -10°C to +60°C

3.6.3.2. Protection: IP68

END OF DOCUMENT



A Division of Transnet Limited
Registration Number 1990/000900/06

Transnet Freight Rail, Infra Telecoms
Requirements and Specifications
for
The Manufacturing, Supply and Installation
Of Concrete Equipment Housing

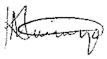
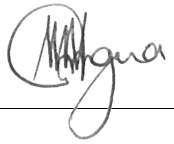
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I. DOCUMENT AUTHORISATION

FUNCTION	NAME	TITLE & DIVISION	SIGNATURE	DATE
Compiled by:	A. Nkomane	Radio Access Network		23 Aug 2021
Reviewed by:	G. Mohlala	Structural		14 Sep 2021
Reviewed by:	K. Mniniyo	Quality Assurance		27/09/2021
Authorised by:	M. Mmbengwa	Radio Access Network		06.10.2021

II. DISTRIBUTION

Once updated, a copy of the latest revision will be published in the document management system in use. E-mail to this effect will be sent to the relevant personnel or heads of department.

DOCUMENT CHANGE HISTORY

ISSUE NO.	DATE ISSUED	ISSUED BY	HISTORY DESCRIPTION
1	November 2018	Graham Hauman	First issue
2.	August 2021	Asanda Nkomane	Amended

CHANGES SINCE LAST REVISION

CLAUSE	DESCRIPTION

III. RELEVANT DOCUMENTATION

a) CSE 1154-001 Cat. E48: Environmental Specification for Transnet Railway Signalling Systems
b) SANS 1200G: Concrete (Structural)
c) SANS 1200GE: Pre-Cast Concrete (Structural)
d) SANS 1063: Earth Rods and Couplers
e) S420 (1999): Specification for Concrete Work
f) CSE-1155-500 Cat. N48: Testing of Signalling Installation
g) CSE-514/5: Manufacture of Concrete Components
h) CSE-516/2: Trenching and Outdoor Cable Installation – Addendum depth of trench and slabs
i) CSE_1133_052_Cat.98: Corrosion Resistant
j) BBC 1040: Installation of Earthing and Lightning Protection in Relay Rooms and SignallingEnclosures
k) CSE-1155-515: Installation of Earthing

ABBREVIATIONS AND ACRONYMS	DESCRIPTION
Amp	Ampere unit
AC	Alternating Current
BTU	British Thermal Unit
CoC	Certificate of Completion
DCP	Dynamic Cone Penetrometer
ISO	International Organisation for Standardization
mm	millimetre
MPa	Mega-pascal Pressure unit
No	Number
PVC	Polyvinyl chloride
SABS	South African Bureau of Standards
TFR	Transnet Freight Rail
UV	Ultra-violet
VAC	voltage — Alternating current

1. Introduction

This document outlines the specification and standards for the manufacture, supply, delivery, and installation of a concrete container. The concrete container is intended to keep the radio equipment safe and secure from theft and vandalism. The concrete container will have reinforced concrete foundation, wall and roof. When the specification and the schedule of requirements document clash, the schedule of requirements takes precedence.

2. Scope of Work

2.1 The service provider shall clear and grumble as per the site boundary of 4m x 4m to fit the required structure on drawing No. BBH 1900.

2.2 The supply and installation of a concrete container for the housing of telecommunication equipment.

2.3 The Contractor must complete a Certificate of Completion (CoC) and provide it to the TFR once each concrete container has been constructed according to this standard.

2.4 The CoC will be signed if the TFR is satisfied that the site has been completed according to the specifications.

3. Container Requirements

3.1 Construction Characteristics

3.1.1 Excavation

3.1.1.1 There must be an excavation level before the foundations may be erected. This levelling ensures that the foundations are placed on a firm layer of soil.

3.1.1.2 It should be at least 3 meters wide, 3 meters long, and 0.25 to 0.5 meters deep. If necessary, this size can be expanded. The depth is determined by the type of soil used to construct the secure housing.

3.1.1.3 A Dynamic Cone Penetrometer (DCP) test will be used to determine the foundation conditions. Can you please rephrase this statement:

3.1.1.4 The foundation casting can proceed if the DCP test results are within acceptable limits. If the DCP test results are not to standard, backfill may be required if the soil is too soft, or not to the standard to withstand the weight of the secure housing

3.1.1.5 Where the DCP penetration exceed 5mm per blow, the service provider shall be required to remove the material and backfill with 200mm G2 material on the founding layer on the foundation.

3.1.1.6 The backfill should be 200mm thick of G2 materials.

3.1.1.7 The backfill material shall be compacted to a minimum of 95% Mod. AASHTO density.

3.1.2 Foundation

3.1.2.1 A concrete foundation (of 25 MPa concrete) is then cast 3 meters wide, 3 meters long and 0.25 meters deep, around the base of the steel reinforced structure.

3.2 Reinforced Concrete Structure

3.2.1 The reinforced concrete structure must be made of Y16 steel bar and these placed at 100mm apart to lessen the chances of bending the reinforcement.

3.2.2 The reinforced structure shall be 2.5 meters wide, and the lowest point of the reinforced structure should be 2.44 meters above the structure's floor.

3.2.3 To prevent the secure structure from tipping over, the foundation reinforcements must be the same as the wall reinforcements.

3.2.4 The roof reinforcements must be attached to the wall reinforcements directly, resulting in a full steel reinforcement framework.

3.2.5 On the reinforced structure, there must be an earth stud installed. This earth stud should be a 12mm stud that protrudes at least 75mm from the concrete structure's interior.

3.2.6 This stud should be threaded so that it can be attached to the EBB with a nut after the interior reinforcing has been installed.

3.3 Door and Locking Mechanism

a) Door

3.3.1 A vandal proof door shall be fitted into the structure

3.3.2 The overall door thickness shall have a minimum thickness of 85mm. This minimum thickness has to include a fire pan, locking case and outer panel.

3.3.3 The door shall be constructed of mild steel, with the outer panel having a minimum thickness of 6mm. The outer panel also has to consist of a single metal sheet, no joints allowed.

3.3.4 The door shall have eight (8) locking bolts/ pins with a diameter of 40mm each.

3.3.5 Four (4) of these shall be fixed back bolts/ pins (door hinge side).

3.3.6 Four (4) of these shall be moveable front bolts/ pins (door opening side).

3.3.7 The door must be hanged on heavy duty hinges, which must include a bush and bearing to avoid sagging. All hinges must be installed on the inside of the structure.

3.3.8 Facing from the front, all single safety door installations should open outwards to the left.

3.3.9 From outside, the door opening mechanism shall be by means of a key (locking mechanism) and a T-handle (operating four (4) movable bolts / pins). Refer to point C below.

3.3.10 The door must have an inside door handle and mechanism to lock and unlock from the inside.

3.3.11 Door opening never to face service road or railway line for safety purpose, and must as far as possible face in the same direction as the Relay Room.

b) Locking mechanisms

3.3.12 The door shall be fitted with a seven (7) lever high security lock.

3.3.13 The locking mechanism must lock into the concrete structure to ensure that the door cannot be removed unless it has been unlocked.

3.3.14 The T-Handle key hole shall be covered with a 3mm steel box to prevent damaging of the lock but still be able to open with the handle.

3.3.15 The locks and bolts shall be constructed of materials that are resistant to corrosion.

3.3.16 Two keys and T-handles have to be supplied with each door. The T-handles must be forged.

3.3.17 These keys should be depot or region specific. Thus a standard key per depot, but not country wide

3.3.18 Unless stipulated otherwise, all key locks shall use TFR Signal Relay Room Keys.

3.3.19 The door must have an inside door handle and mechanism to lock and unlock from inside, without the use of a T-handle or lock key.

3.4 Cables and wiring

3.4.1 All cables that enter the enclosure must be concealed.

3.4.2 All cables must enter from the bottom of the casing.

3.4.3 Concrete cable ducting must be included in the foundation. It must be 200mm broad and 110mm deep. And run along the inside of two adjoining walls.

3.4.4 At least 3 x 110 Nextube pipe cable entries must be provided in the foundation; the number of entries can be raised if necessary. The cable entrances must be located in the ducting's three corners.

3.4.5 The cable ducts must be covered with Chequer Plate, which is flush with the floor surface and reinforced at both ends and in the centre of the 800mm plate.

3.5 Floor

3.5.1 The flooring shall be a PVC interlocking floor tile

3.5.2 The tile must provide minimum of 5mm thickness

3.5.3 The colour of the tiling must be grey or black

3.6 Electrical

3.6.1 The mains feed must be connected via an externally mounted box containing the mains / standby change over switch with all lightning protection and required circuitry. The box must be fitted with a universal socket to accommodate a single phase generator

3.6.2 Lights

3.6.2.1 Two standards SA approved, (SABS) 1500 mm double tube fluorescent light fittings, complete with 65 Watt, cool white tubes, to be fitted in the centre of the container lengthwise, 450 mm from the front and back of the container

3.6.2.2 A 4 lever light switch must be mounted inside the container next to the door approximately 1400mm above the floor for internal and external lights.

3.6.2.3 A 4 lever light switch must be mounted inside the container next to the door approximately 1400mm above the floor for internal and external lights. Top switch for internal lights, second for external light via sensors, third for external light override and fourth for future use

3.6.2.4 A single round external 2 x 9 W (with PL9 tubes) watertight bulkhead fluorescent light fitting shall be fitted

3.6.2.5 The Bulkhead light fitting shall have a die-cast Aluminium base, and the diffuser shall be UV stabilised.

3.6.2.6 Light will be controlled via a light switch in series with a day/Night sensor and an infrared movement sensor.

3.6.2.7 An over- ride switch must be able to switch the light on and off as and when required.

3.6.3 Mains Plug Sockets

3.6.3.1 All AC power sockets are to be fitted flush up against the trunking and must be secured with a lock nut and bush/PVC male adaptor.

3.6.3.2 Power duct equipped with eight, double, 16amp, switched, 220 VAC, outlet sockets (Two separate feeds, feeding four outlets each)

3.6.3.3 Standing in the doorway facing the inside of the container:

a) Two sockets to be fitted in the centre of the rear wall duct.

b) One socket must be mounted on the right, 2.4m wall, and 450mm from the front wall.

c) Two sockets must be mounted on the right 2.4m wall, 450mm from the rear wall.

3.7 Air Conditioning

3.7.1 Two 900 BTU Air-conditioner systems, cooling only, with extractor fan with gravitational louver system to be installed in the rear wall

3.7.2 The air conditioners must be protected against theft with a vandal proof cage mounted on the outside of the container securing the air conditioners.

3.7.3 The air conditioner must only be removable from the inside of the equipment shelter.

3.7.4 The vandal proof cage must be hot-dipped galvanised

3.7.5 The air-conditioners must be mounted to the rear wall of the shelter

3.7.6 The weight of the conditioners must not distort the wall panels.

3.7.7 The air conditioners must restart automatically after a power disruption with a 30 to 45 second delay in order to prevent power overload and surge spikes.

3.7.8 The second air conditioner may only start up 10 seconds after the first.

3.7.9 Each air conditioner must be fed from its own circuit breaker and isolator switch

3.7.10 The air conditioners must be wired so that the primary unit controls the temperature

3.7.11 The secondary unit remains on standby until it is switched on via a temperature controlled switch set at 26 degrees Celsius or activated via an override switch

3.7.12 The temperature controlled switch must be adjustable between at least 20 and 35 degrees Celsius.

3.8 Ventilation and Air-flow

3.8.1 Provisions also need to be made for heat reduction, moisture prevention and air flow.

3.8.2 When filling in the shutters with concrete, air flow tubes must be installed between the inner and outer layer of the structure.

3.8.3 Keep the water out by placing outer hole lower than the inner hole.

3.8.4 The ventilation pipes must be 0.3 meters from the top of the structure.

3.8.5 These ventilations holes need be covered with a fine mesh to prevent rodents and other animals from entering the structure.

3.9 Reinforced interior of the structure

3.9.1 Once the complete concrete structure has been completed, galvanized steel plate reinforcements are then installed on the inside of the structure.

3.9.2 These galvanized steel plates are 2mm thick and are welded together inside the structure.

3.9.3 There must be one galvanized plate that covers the interior of one side of the wall.

3.9.4 There shall be no plates welded together to cover one side of the wall.

3.9.5 If it is not possible to use one complete plate, two floor to roof panels must be used, per wall, which are continuously welded together and grinded.

3.9.6 These galvanized steel plates are then mounted to the wall using 10mm expansion anchors.

3.9.7 These galvanized steel plates are installed onto each interior wall.

3.10 Earthing and Lighting protection

a) Earthing

Earthing shall be installed in all concrete equipment shelter in accordance with TFR standards (Section iii)

b) Lightning Protection

The lightning protection install in all concrete equipment shelter in accordance with TFR standards. (Section iii)

THE END

TRANSNET
freight rail

RAIL NETWORK TELECOMMUNICATIONS

SPECIFICATION FOR OUTDOOR CABINETS FOR HIGH SITES

DOCUMENT NUMBER BBH5111

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Date: November 2021

Circulation Restricted To: Rail Network Telecoms
Transnet Freight Rail

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I. DISTRIBUTION

Once updated, a copy of the latest revision will be published in the document management system in use. An e-mail to this effect will be sent to the relevant personnel or heads of department.

II. DOCUMENT CHANGE HISTORY

VERSION NO.	NATURE OF AMENDMENT		DATE REVISED
1.0	New Document		November 2021

III. ABBREVIATION, ACRONYMS, AND DEFINITIONS

ABBREVIATIONS AND ACRONYMS	DESCRIPTION
TXTL	Torch, Tool, and Explosives Resistant
TFR	Transnet Freight Rail
DCP	Dynamic Cone Penetrometer
BTU	British Thermal Unit
DPC	Damp Proof Core

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IV. RELEVANT DOCUMENTATION

The equipment must comply with the latest issue of the following applicable specifications:

DOCUMENT NO.	DESCRIPTION	LOCATION
CSE 1154-001 Cat. E48:	Environmental Specification for Transnet Railway Signalling Systems	Transnet
SANS 1200A	General	Transnet
SANS 1200C	Site Clearance	Transnet
SANS 1200DA	Earthworks	Transnet
SANS 1200G	Concrete (Structural)	Transnet
SANS 1200GE	Pre-Cast Concrete (Structural)	Transnet
SANS 1063	Earth Rods and Couplers	Transnet
S420 (1999)	Specification for Concrete Work	Transnet
CSE-1155-500 Cat. N48	Testing of Signalling Installation	Transnet
CSE-514/5	Manufacture of Concrete Components	Transnet
CSE-516/2	Trenching and Outdoor Cable Installation – Addendum depth of trench and slabs	Transnet
CSE_1133_052_Cat. 98	Corrosion Resistant	Transnet
BBC 1040	Installation of Earthing and Lightning Protection in Relay Rooms and Signalling Enclosures	Transnet
CSE-1155-515	Installation of Earthing	Transnet

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1. Scope

1.1 This specification contains the technical requirements of Transnet for the manufacture, supply and installation of the Outdoor Cabinets (OC) to be used in the High Sites. It describes in detail the technical and quality requirements.

1.2 The equipment structure must be robust and provide high security to safely store and secure the Telecoms equipment that is installed inside the shelter against theft and vandalism. The OC will have reinforced concrete foundations, steel walls and a roof, to secure the equipment installed inside of it.

2. Compliance

2.1 Tenders must indicate clause by clause how their offer complies or differs from this specification through substantiating documented proof.

2.2 Failure to complete a clause by clause how their offer complies in the mentioned manner will result in disqualification.

2.3 Tenders must submit detailed descriptive literature, illustrations and specifications together with sufficient information to demonstrate show the equipment will meet the requirements of TFR.

2.4 Failure to supply detailed substantive proof/ information on compliance, non-compliance/ partial compliance points will cause disqualification from this tender.

2.5 Tenders must submit their main offer that is fully compliant in terms of this technical specification.

2.6 **Alternative Offers:**

2.6.1 Offers, which include minor deviations from this specification can be offered as an alternative offer must be marked/ indicated as an alternative offer.

2.6.2 Alternatives and none technical complaints might be considered at the sole discretion of TFR only if it is marked as an alternative/ non-compliant offer.

2.7 The Tenderer must be an authorised distributor of the product in South Africa.

2.8 Documentary proof must be submitted with the tender submission authorising the bidder to tender on the manufacture's behalf.

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3. General Requirement

3.1 **Operational Requirements**

The device must be suitable for withstanding the environmental conditions without mechanical degradation:

3.1.1 The equipment must be able to withstand ambient temperature ranging from -10 to 50° Celsius to protect the inside equipment.

3.1.2 Relative Humidity: 5 to 95 %.

3.1.3 The equipment must be able to operate in conditions of heavily saline laden industrial and locomotive fumes containing metallic dust.

3.1.4 The equipment must have water ingress protection conforming to IP54.

3.1.5 In addition, the Tenderer must provide full details of the environmental operating limits of the device.

4 Technical Requirements

4.1 **General Requirements**

4.1.1 The configuration of the device must be able to house telecoms equipment i.e radio, transmission and batteries compartment at the bottom.

4.1.2 The equipment housing must be able to house equipment including batteries up to 52U.

4.2 **Technical Requirements**

4.2.1 **Concrete plinth**

4.2.1.1 The area on which the plinth is to be constructed shall be cleared of all vegetation in accordance to SANS 1200 C.

4.2.1.2 The length and the breadth of the area cleared shall be 500mm more than the length and 500mm more than the breadth of the required size of the plinth.

4.2.1.3 The foundation conditions must be conducted using a Dynamic Cone Penetrometer (DCP) test prior to the excavation to determine the bearing strength of the ground condition.

4.2.1.4 Should the DCP reading indicate the 20mm per blow or more shall be classified as a weak foundation and G2 material be imported.

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4.2.1.5 The excavation depth of the container plinth shall be at a minimum of 250mm and protrude not less than 180mm above the surrounding ground level after casting.

4.2.1.6 Transnet representative shall inspect and approve the soil conditions for excavation prior to the concrete casting or backfilling material.

4.2.1.7 The depth of the excavation will depend on the soil type of where the cabinet will be placed. Any clay material should be removed and replaced with G2 material.

4.2.1.8 Where the foundation is found to be weak, the excavation of 400mm shall be done and backfilled with 200mm thickness of G2 material to be compacted to 95% Mod AASHTO density.

4.2.1.9 The excavation level of at least 1.5 meters wide, 1.5 meters long and between 0.25 and 0.45 meters.

4.2.2 **Plinth Construction**

4.2.2.1 Damp Proof Core (DPC) or moisture inhibitors must be placed inside the excavated area.

4.2.2.2 The base of the concrete slab should be levelled and compacted.

4.2.2.3 Ref 500 mesh is to be used for the steel re-enforcing at 40mm above the base level.

4.2.2.4 A concrete foundation/plinth of at least (20 MPa concrete) is then cast 1.5 meters wide, 1.5 meters long and 0.25 meters deep, around the base of the steel-reinforced structure.

4.2.2.5 The concrete must be thoroughly compacted with an approved high-frequency, low amplitude vibrator.

4.2.2.6 The concrete shall be floated to a smooth wood float finish to provide a non–slip surface finish.

4.2.2.7 The position and orientation of sleeve pipes required will be determined per site and will have to be verified by a Transnet Telecommunications' Representative prior to the casting of concrete.

4.2.2.8 The sleeve pipes used are to be 110mm ø HDPE with a minimum bend radius of 500mm where necessary.

4.2.2.9 The shuttering needs to be levelled and positioned accordingly.

4.2.2.10 The foundation must be robust enough to handle a weight of at least 4000 kg of the complete structure.

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4.2.3 **Cables and Wiring**

4.2.3.1 The rooftop cable entry must be 300 x 100mm Aluminium Gland Plate + Brush Entry Plate conforming to IP43.

4.2.3.2 There must be a provision made in the foundation/plinth for concrete cable ducting.

4.2.3.3 This ducting must be 200mm wide and 110mm deep.

4.2.3.4 Provision must be made in the foundation for at least 3 x 110 mm Nextube pipe cable entries in the floor for feeders or fibre. The number of entries can be increased if required.

4.2.3.5 The AC power must have a separate 1x 50mm Nextube Entry Plate.

4.2.3.6 The cable entries are placed in the three corners of the ducting, as described in the attached design.

4.2.3.7 The cable ducts shall be covered with a Chequer Plate, that are flush with the floor finishing and has reinforcing at both ends and in the middle of the 800mm plate.

4.2.4 **Structure and Materials:**

4.2.4.1 The device must have a robust and high-security design to prevent unauthorised access complying with TXTL-60 safety standards.

4.2.4.2 The equipment material structure must be made of 3CR12 steel with a thickness of at least 6.0 mm for extra security.

4.2.4.3 The distance from the internal and to the external wall must be at least 150 mm.

4.2.4.4 The steel structure must be high rolled pickled and oiled to remove impurities and rust and protect from corrosion.

4.2.4.5 The outside steel panels must be fitted and bolted from the inside of the equipment.

4.2.4.6 The roof unit must be similar to the wall structure, with reinforcement bars and cable entry hung.

4.2.4.7 The interior walls must be riveted to form a separate channel.

4.2.4.8 The steel must be finished with a white coat colour complying with ISO 9001:2008.

4.2.4.9 The walls must have a tri-axis reinforcing bar rod of 12 mm that can withstand 450 MPA pressure.

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4.2.4.10 Concrete must be poured inside the walls, from the top to form a rigid structure.

4.2.4.11 Prevention of dust that can cause internal damage and no harmful effect when water is sprayed in all directions conforming to IP65 standard.

4.2.4.12 The length, breadth and width of the entire outdoor cabinet must be at least 2.5 m, 1.2 m and 1.2 m respectively.

4.2.5 **Equipment Mounting:**

4.2.5.1 The cabinet must have 52U of total space to house batteries and equipment.

4.2.5.2 The rack must be open and welded in construction that is electro-galvanized to protect from corrosion.

4.2.5.3 The bottom rack of the cabinet must have a 2 x battery compartment to house 48 VDC batteries each with a width of 0.6 m and height of 0.4 m, depth of 0.8m.

4.2.5.4 The top equipment rack must be a 19-inch rack, DIN-rail of 36U.

4.2.5.5 The design of the cabinet must make it possible to increase the battery compartment by reducing the 19-inch top equipment rack.

4.2.5.6 The equipment rack must be designed and constructed such that the equipment can be shelved out to allow installation and fault-finding on the equipment.

4.2.5.7 The battery compartment must have a tray that is acid-resistant to protect from acid spillage.

4.2.5.8 The design of the equipment must allow air to flow from the front to the rear.

4.2.6 **Door Mechanism:**

4.2.6.1 The design of the door must be such that it prevents unauthorised entry.

4.2.6.2 The total door thickness shall have a minimum thickness of 85mm. This minimum thickness has to include a fire pan, locking case and outer panel.

4.2.6.3 The door shall be constructed of mild steel, with the outer panel having a minimum thickness of 6mm. The outer panel also has to consist of a single metal sheet, no joints allowed that could compromise its rigidity.

4.2.6.4 The door shall have eight (8) locking bolts/ pins with a diameter of 40mm each complying to TXTL-60 specification.

4.2.6.4.1 Four (4) of these shall be fixed back bolts/ pins (door hinge side).

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4.2.6.4.2 Four (4) of these shall be moveable front bolts/ pins (door opening side).

4.2.6.5 The door must be hung on heavy-duty hinges, which must include a bush and bearing to avoid sagging. All hinges must be installed on the inside of the structure.

4.2.6.6 Facing from the front, all single safety door installations should open outwards to the left.

4.2.6.7 From outside, the door opening mechanism shall be by means of a key (locking mechanism) and a T-handle (operating four (4) movable bolts/pins).

4.2.6.8 The door must have an inside door handle and mechanism to lock and unlock from the inside.

4.2.6.9 The door must have a document holder.

4.2.7 **Locking Mechanism:**

4.2.7.1 The locking mechanism of the door must be fitted with a seven (7) lever high-security lock.

4.2.7.2 The locking mechanism must lock into the wall structure to ensure that the door cannot be removed unless it has been unlocked.

4.2.7.3 The T-Handle keyhole shall be covered with a 3mm steel box to prevent damaging of the lock but still enable to open with the handle.

4.2.7.4 The locks and bolts shall be constructed of materials that are resistant to corrosion.

4.2.7.5 Two keys and T-handles have to be supplied with each door. The T-handles must be forged.

4.2.7.6 These keys should be depot or region-specific. Thus a standard key per depot, but not countrywide.

4.2.7.7 Unless stipulated otherwise, all key locks shall use TFR High Site Room Keys.

4.2.7.8 The door must have an inside door handle and mechanism to lock and unlock from inside, without the use of a T-handle or lock key.

4.2.8 **Power Requirements:**

4.2.8.1 The equipment must have a single phase, alternating current, distribution board (ACDB) with:

A. Isolator switch

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B. 32 A earth leakage
C. 4 x 20A/220V Circuit breakers

4.2.8.2 The equipment must have a change over switch with lightning protection and required circuity.

4.2.8.3 The equipment must be fitted with a universal socket to accommodate a single-phase generator.

4.2.8.4 The equipment must be provisioned to have alarms for the door (normal closed), cooling fans and temperature. The equipment must have built-in sensors to cater for the alarms.

3.1.1 **Ventilation and Air Flow:**

3.1.1.1 Provisions also need to be made for heat reduction, moisture prevention and airflow.

3.1.1.2 Airflow tubes must be installed between the inner and outer layers of the wall structure.

3.1.1.3 Keep the water out by placing the outer hole lower than the inner hole.

3.1.1.4 The ventilation pipes must be 0.3 meters from the top of the structure.

3.1.1.5 These ventilation holes need to be covered with a fine mesh to prevent rodents and other animals from entering the structure.

3.1.2 **Cooling Requirements:**

3.1.2.1 The equipment must conform to thermal insulation class A.

3.1.2.2 The equipment must have at least 3 fan modules that have variable speed control to reduce power consumption and noise levels.

3.1.2.3 The fan module must be able to be powered from a 48 VDC from the battery bank and each fan must have at least 805 BTU.

3.1.2.4 The equipment must have removable class F or G4 dust fillers.

4 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility

4.1.1 Transnet accredited agents shall be responsible for inspection and testing of all delivered and installed products and services.
4.1.2 The agent shall be an ISO9001 certified company, and supply their registration number along with the inspection and testing documents.

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4.2 **Standards**

4.2.1 All concrete shall be cube tests and results provided.

4.2.2 Results from the DCP test need to be provided before the foundation is cast.

5 As-built Documentation

5.1.1 A full set of room and foundation drawings must be provided and on-site before work commences and they must be supplied to TFR on completion.

5.1.2 A paper copy of the documentation must be submitted to the site owner and another copy left at TFR's building on site. Electronic copies of the documentation must be submitted to the site owner.

6 Technical Handbooks

6.1 Technical handbooks must be printed in English. Photostat copies will not be acceptable.

6.2 Each set of handbooks must include the following:

6.2.1 Operating instructions.

6.2.2 Complete maintenance instructions.

6.2.3 Complete and detailed alignment procedures.

6.2.4 A detailed technical description of the equipment.

6.2.5 Complete circuit diagrams, drawings and photographs of the equipment. The photographs and drawing must clearly indicate component/module location on printed circuit boards etc. All component numbers must be clearly shown.

6.2.6 A list of parts giving the values of all components, i.e. resistors, capacitors, integrated circuit numbers etc., for each schematic drawing.

6.2.7 Detailed printed circuit board wiring diagrams of all layers showing component numbers and positions must be provided. Panel and or unit wiring diagrams must also be provided.

6.2.8 Voltage levels, current values, test points etc., must be clearly indicated on all circuit diagrams.

6.2.9 Complete circuit diagrams of individual modules must be included.

6.2.10 A block schematic of the complete system, indicating all test points as well as the level readings which should be obtained at these points.

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6.2.11 All indicated levels in the equipment and in the instruction books must be given in power levels (0 dB = 1 mW into 600 ohms).

6.2.12 All symbols and notations used on drawings and circuit diagrams must preferably comply with the requirements laid down in BS 3939. Where symbols and notations do not comply with these requirements each drawing must be accompanied by a legend clearly detailing BS 3939 equivalents.

6.2.13 Transnet reserves the right to reproduce in whole or in part, by any means whatsoever, any technical handbook or instruction manual supplied by the successful contractor. Any such reproductions will be for the sole use of Transnet.

6.2.14 To enable the personnel of Transnet to become acquainted with the circuitry and design details of the equipment ordered, the successful tenderer must deliver one complete set of handbooks to each centre mentioned in the Schedule of Requirements, delivery to be effected at least one month before the commencement of the delivery of the equipment.

6.3 Programming software and service manuals to be supplied on a USB flash drive.

END OF DOCUMENT

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PART 4: AFFECTED PROPERTIES

Core clause 11.2(16) states

"Affected Properties is information which

- describes the Affected Property and its surroundings and
- is in the documents which the Contract Data states it is in."

In Contract Data, reference has been made to this Part 4 of the contract for the location of Affected Property Information.

1. Description of the Affected Property and its surroundings

1.1. General description

1.1.1. *Employer*'s Affected Property entry and security control, permits, and Affected Property regulations

The work to be carried out is at the office buildings in the Central Region , Telecoms depots as stated in 1.1;and is in an access controlled area.

The areas are restricted and the *Contractor* must ensure compliance with the regulations of Transnet SOC Ltd in every way. The *Contractor* and any sub-*Contractor*s shall be required to apply for permission to enter the restricted area in writing. A list of workmen shall be given to the *Service Manager* to arrange for the necessary permits. 48 Hours minimum notice is necessary for the processing of these permits. This includes changes to staff during the contract period

The *Contractor* shall ensure the safe passage of traffic to and around the working areas at all times. This shall entail the provision of flagmen, protective barriers, lanterns, signs, etc. for protection, direction and control of traffic. No lights are to be fixed anywhere without written approval from the *Service Manager.*

In the event where nearby buildings, roads, or the area where the *Contractor* is working is being used by other Transnet employees, the *Contractor* shall organise the work to cause the least possible inconvenience to any operations at the various Transnet Freight Rail assets.

Access permits shall be made by the *Contractor* to a standard acceptable to the *Service Manager*, be allowed for within the *Contractor*'s access control provision 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
  - Telephone number
  - Fax number
  - E-mail address

1.2. Access to Affected Property

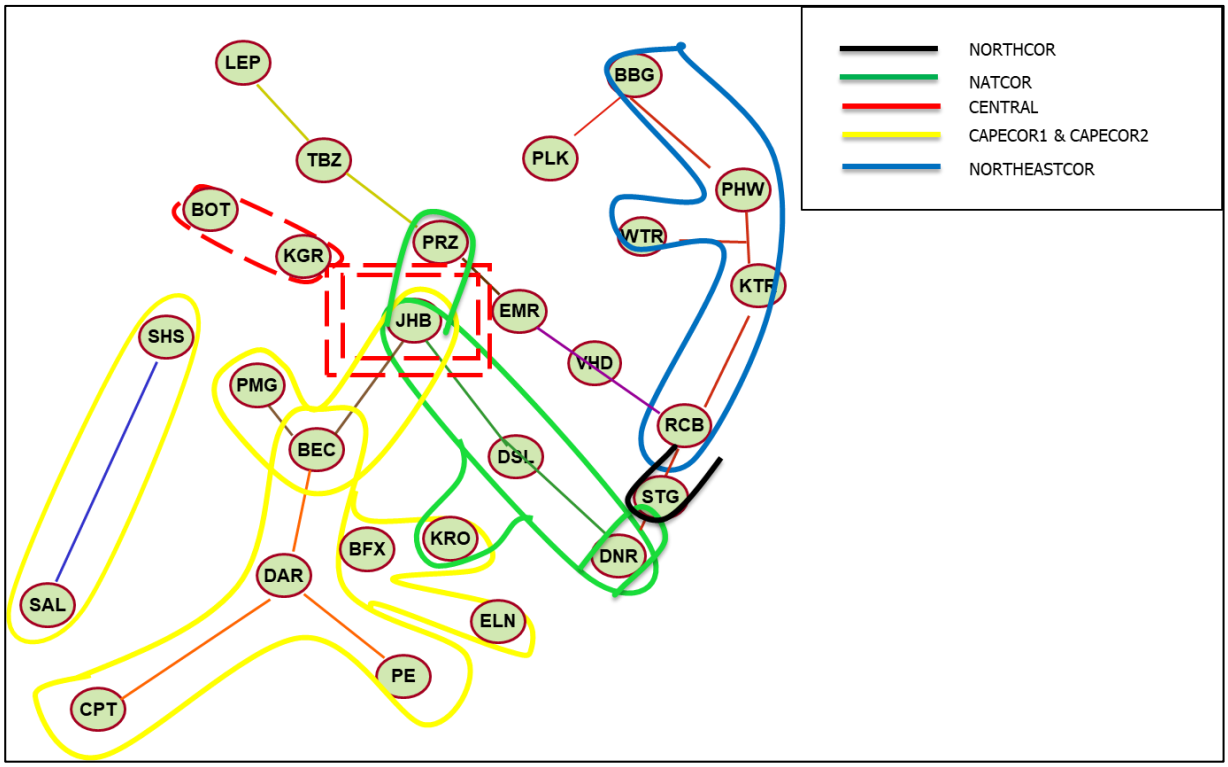
The normal working hours are between 07:30 and 16:30 Mondays to Fridays. If it is required to work outside the stated normal working hours the Contractor must obtain written permission at least 48 hours before such work needs to be undertaken. Transnet will not unreasonably withhold permission; however, the *Contractor* may have to pay for Transnet's service management personnel, should this be required.

The *Contractor* complies with the following hours of work for his people (including Sub*Contractor*s) employed on the Affected Property:

People restrictions on Affected Property; hours of work, conduct and records:

The *Contractor* keeps daily records of his people engaged on the Affected Property and Working Areas (including Sub*contractor*s) with access to such daily records available for inspection by the *Service Manager* at all reasonable times.

Working hours are from 07:30 – 16:30 Mondays – Fridays.

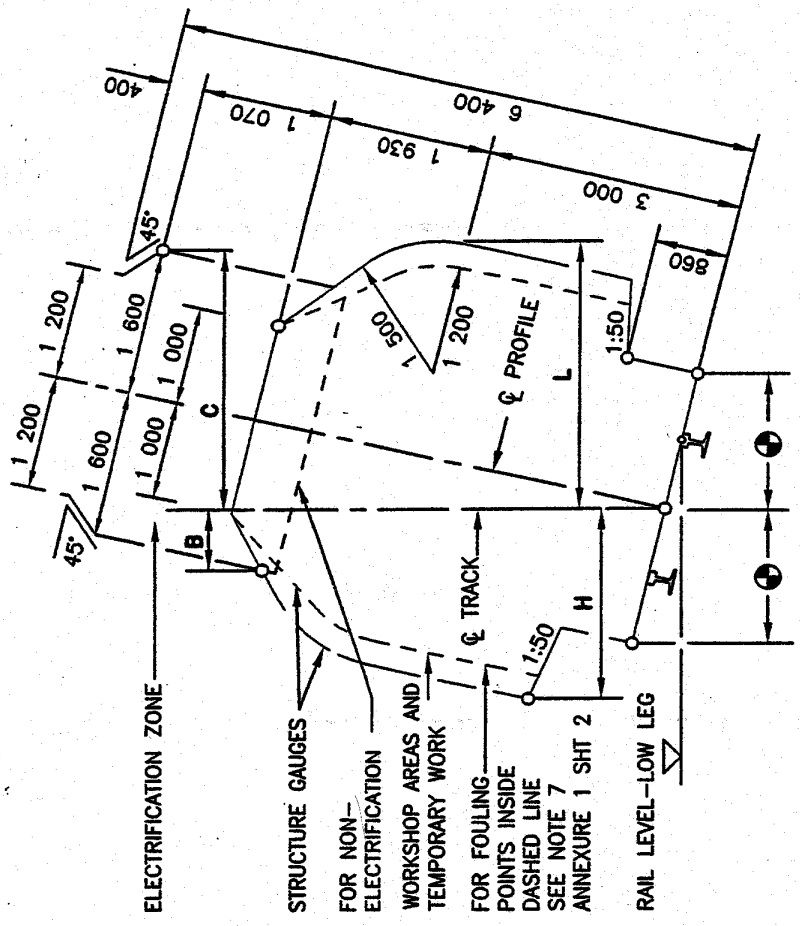


Central Region depots

- Vereeniging
- Durban
- Ladysmith
- Heidelberg
- Isando
- Polokwane
- Krugersdorp

ANNEXURE 1
SHEET 1 of 5
AMENDMENT

HORIZONTAL CLEARANCES : 1 065mm TRACK GAUGE



RADIUS (m)	WITH CANT H (mm)	WITH CANT L (mm)	NO CANT H & L	WITH CANT B (mm)	WITH CANT C (mm)
90	2 730	3 090	2 780	1 130	2 100
100	2 700	3 030	2 750	1 140	2 050
120	2 650	2 970	2 700	1 160	2 010
140	2 620	2 920	2 660	1 175	1 990
170	2 590	2 870	2 630	1 190	1 970
200	2 570	2 820	2 600	1 205	1 950
250	2 550	2 790	2 580	1 230	1 920
300	2 540	2 760	2 560	1 250	1 900
350	2 530	2 730	2 540	1 270	1 890
400	2 520	2 710	2 530	1 290	1 875
500	2 510	2 680	2 520	1 320	1 850
600	2 500	2 660	2 510	1 340	1 830
800	2 490	2 620	2 500	1 365	1 790
1 000	2 480	2 600	2 490	1 380	1 760
1 200	2 480	2 580	2 490	1 200	1 730
1 500	2 480	2 550	2 480	1 415	1 700
2 000	2 480	2 500	2 480	1 440	1 660
3 000	2 470	2 470	2 470	1 500	1 600
>5 000	2 460	2 460	2 460	1 600	1 600

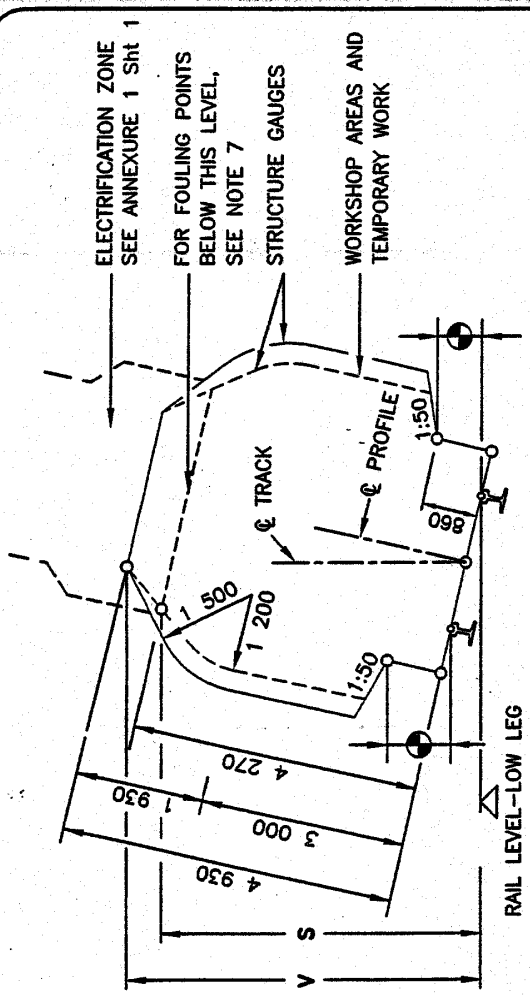
REMARKS:

1. **H** AND **B** IS THE REQUIRED HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
2. **L** AND **C** IS THE REQUIRED HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR WORKSHOP AREAS AND TEMPORARY WORK, CLEARANCES **H** AND **L** MAY BE REDUCED BY 300mm.
5. ⊕ SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.
6. ALSO REFER TO REMARKS 4 TO 8 OF ANNEXURE 1 SHEET 2.

BE 97–01 Sht 1 of 5 DATE : JUNE 2000

ANNEXURE 1
SHEET 2 of 5
AMENDMENT

VERTICAL CLEARANCES : 1 065mm TRACK GAUGE



LOCATION		NOT ELECTRIFIED	ELECTRIFIED (PRESENT OR FUTURE)			
			3kV & 25kV	50kV		
	RADIUS (mm)	S (mm)	V (mm)	V (mm)		
ALL AREAS OTHER THAN THOSE INDICATED BY * BELOW	100	4 470	5 050	5 400		
	300	4 410	5 020	5 370		
	600	4 370	5 000	5 350		
	1 000	4 350	4 990	5 340		
	1 500	4 310	4 960	5 310		
	2 000	4 290	4 940	5 290		
	>3 000	4 270	4 930	5 280		
* OVER OR NEAR POINTS AND CROSSING IF REQUIRED BY ELECTRICAL IRRESPECTIVE OF RADIUS			5 650	6 000		

REMARKS:

1. V IS THE REQUIRED VERTICAL CLEARANCE EXCEPT WHERE REDUCED CLEARANCE S APPLIES.
2. S IS THE MINIMUM VERTICAL CLEARANCE FOR STRUCTURES AND TEMPORARY WORK OVER NON–ELECTRIFIED LINES.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR APPLICATION AT CURVES
   - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 3m BEYOND THE ENDS OF THE CIRCULAR CURVE.
   - 4.2 REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
   - 4.3 FOR NON–TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 15m ALONG STRAIGHTS.
5. NEW STRUCTURES: SEE BRIDGE CODE.
6. TUNNELS: SEE DRAWING BE 82–35.
7. FOULING POINTS: SEE CLAUSE 8.1.
8. CLEARANCES ARE BASED ON 15m BOGIE CENTRES AND 2,2m VECHILE BODY LENGTH.
9. ⊕ SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.

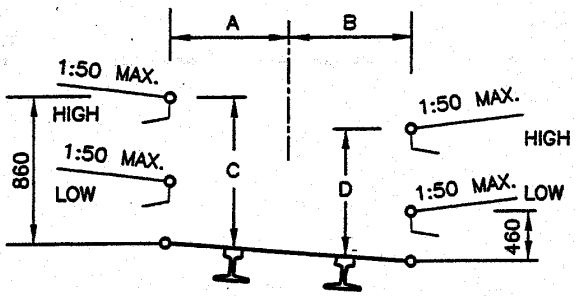
BE 97–01 Sht 2 of 5 DATE : JUNE 2000

ANNEXURE 1
SHEET 3 of 5
AMENDMENT

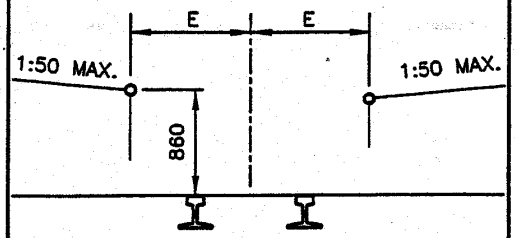
CLEARANCES : PLATFORMS

PLATFORMS : TRACK GAUGE 1 065mm

PASSENGERS



GOODS



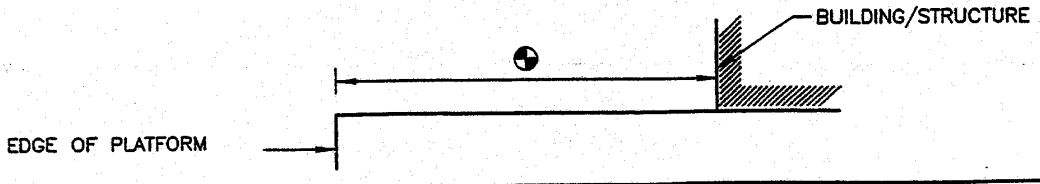
(NO CANT)

RADIUS (m)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
90	1 690	1 820	890	810	1 840
100	1 650	1 790	890	810	1 810
120	1 610	1 740	890	810	1 760
140	1 580	1 700	890	810	1 720
170	1 550	1 660	890	810	1 690
200	1 530	1 630	890	820	1 670
250	1 520	1 600	890	820	1 640
300	1 520	1 580	890	830	1 620
350	1 520	1 560	880	830	1 600
400	1 520	1 550	880	840	1 590
500	1 520	1 540	880	850	1 580
600	1 520	1 530	870	850	1 570
800	1 520	1 520	860	860	1 560
1 200	1 520	1 520	860	860	1 550
2 000	1 520	1 520	860	860	1 540
3 000	1 520	1 520	860	860	1 530
STRAIGHT	1 520	1 520	860	860	1 520

REMARKS:

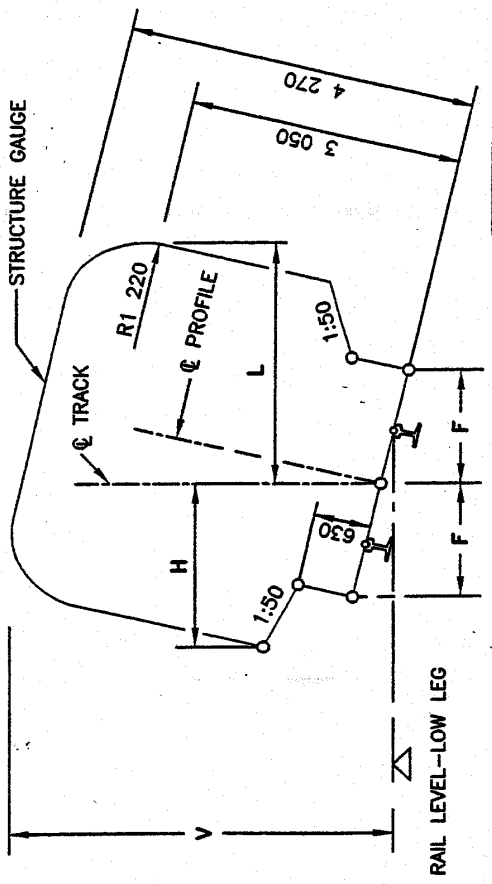
1. NO CANT TO BE APPLIED EXCEPT WHEN THE GOODS PLATFORM IS ON A RUNNING LINE.
2. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
3. ⊕ 8m TO MAIN STATION-BUILDINGS AND 3m TO ALL OTHER STRUCTURES.
4. TOLERANCES : SEE CLAUSE 8.0.10.

STRUCTURES ON PLATFORMS : 1 065mm AND 610mm TRACK GAUGE



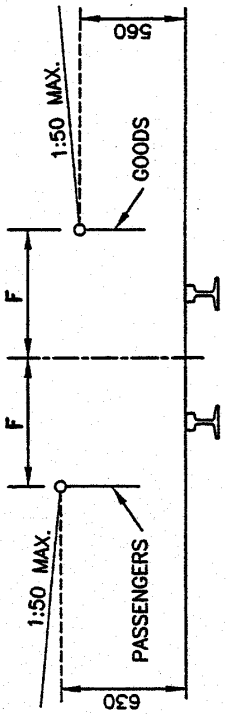
ANNEXURE 1
SHEET 5 of 5
AMENDMENT

CLEARANCES : 610mm TRACK GAUGE



RADIUS (m)	F (mm)
50	1 550
60	1 510
80	1 460
100	1 430
120	1 410
140	1 390
170	1 380
200	1 370
250	1 360
300	1 350
600	1 330
1 000	1 320
>2 000	1 320
STRAIGHT	1 310

RADIUS (m)	WITH CANT H (mm)	WITH CANT L (mm)	NO CANT H & L (mm)	V (mm)
50	2 370	2 490	2 400	4 320
70	2 310	2 420	2 330	4 310
100	2 260	2 370	2 280	4 310
140	2 220	2 340	2 250	4 310
200	2 200	2 300	2 220	4 300
300	2 190	2 270	2 200	4 300
500	2 180	2 230	2 190	4 290
700	2 170	2 200	2 180	4 270
1 000	2 170	2 170	2 170	4 270
>2 000	2 160	2 160	2 160	4 270



REMARKS:

1. H IS THE MINIMUM HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
2. L IS THE MINIMUM HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
3. V IS THE MINIMUM VERTICAL CLEARANCE.
4. FOR APPLICATION AT CURVES:
   - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 2m BEYOND THE ENDS OF THE CIRCULAR CURVE.
   - 4.2 REDUCE CLEARANCES AT A UNIFORM RATE OVER .THE REMAINDER OF THE TRANSITION CURVE.
   - 4.3 FOR NON–TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 18m ALONG STRAIGHTS.
5. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
6. ALSO REFER TO REMARKS 5, 6 AND 7 OF ANNEXURE 1 SHEET 2.
7. CLEARANCES ARE BASED ON 9 700mm BOGIE CENTRES AND 13 700mm VEHICLE BODY LENGTH.
8. SEE ANNEXURE 1 SHEET 3 FOR STRUCTURES ON PLATFORMS.

BE 97–01 Sht 5 of 5 DATE : JUNE 2000



Transnet SOC Limited Registration Number 1990/00900/06

TRANSNET SPECIFICATION

E7/1 - SPECIFICATION FOR GENERAL WORK AND WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT

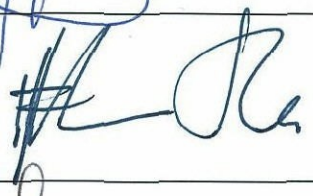
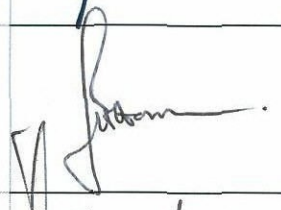
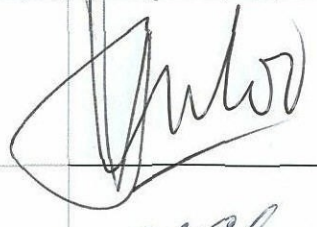
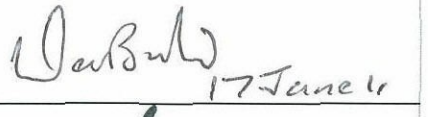
(This specification shall be used in network operator contracts)

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SPECIFICATION FOR GENERAL WORK AND WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT

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Date: May 2011

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TRANSNET SPECIFICATION

E7/1 - SPECIFICATION FOR GENERAL WORK AND WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT

(This specification shall be used in network operator contracts)

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1.0 SCOPE

1.1 This specification covers the network operator's requirements for general work and works on, over, under or adjacent to railway lines and near high voltage equipment.

2.0 DEFINITIONS

The following definitions shall apply:

"Authorised Person" - A person whether an employee of the network operator or not, who has been specially authorised to undertake specific duties in terms of Transnet' publication Electrical Safety Instructions, and who holds a certificate or letter of authority to that effect.

"Barrier" Any device designed to restrict access to "live" high-voltage electrical equipment.

"Bond" - A short conductor installed to provide electrical continuity.

"Contractor" - Any person or organisation appointed by the network operator to carry out work on its behalf.

"Contract Supervisor" - The person or juristic person appointed by the network operator from time to time as the Contract Supervisor, to administer the Contractor's performance and execution of the Works according to the powers and rights held by and obligations placed upon the Contract Supervisor in terms of the Contract.

"Dead" - Isolated and earthed.

"Electrical Officer (Contracts)" - The person appointed in writing by the Project Manager in terms of this specification as the person who shall be consulted by the Contractor in all electrical matters to ensure that adequate safety precautions are taken by the Contractor.

"Executive Officer" - The person appointed by the network operator from time to time as the Executive Officer to act according to the rights and powers held by and obligations placed upon him in terms of the Contract.

"High-Voltage" - A voltage normally exceeding 1000 volts.

"Live" - A conductor is said to be "live" when it is at a potential different from that of the earth or any other conductor of the system of which it forms a part.

"Near" - To be in such a position that a person's body or the tools he is using or any equipment he is handling may come within 3 metres of "live" exposed high-voltage electrical equipment.

"Occupation" - An authorisation granted by the network operator for work to be carried out under specified conditions on, over, under or adjacent to railway lines.

"Occupation Between Trains" - An occupation during an interval between successive trains.

"Optical Fibre Cable" - Buried or suspended composite cable containing optical fibres used in:

- telecommunication networks for transmission of digital information and
- safety sensitive train operations systems.

"Project Manager" – As defined in the special conditions of the contract. The person or juristic person appointed by the network operator from time to time as the Project Manager, to administer the Contract according to the powers and rights held by and obligations placed upon him in terms of the Contract.

"Responsible Representative" - The responsible person in charge, appointed by a contractor, who has undergone specific training (and holds a certificate) to supervise (general or direct) staff under his control who perform general work or to work on, over, under or adjacent to railway lines and in the vicinity of high-voltage electrical equipment.

"Total Occupation" - An occupation for a period when trains are not to traverse the section of line covered by the occupation.

"Work on" - Work undertaken on or so close to the equipment that the specified working clearances to the "live" equipment cannot be maintained.

"Work Permit" - A combined written application and authority to proceed with work on or near dead electrical equipment.

"Works" – The contractual intent for the work to be done as defined in the contract at a defined work site.

PART A - GENERAL SPECIFICATION

3.0 AUTHORITY OF OFFICERS OF TRANSNET

3.1 The Contractor shall co-operate with the officers of the network operator and shall comply with all instructions issued and restrictions imposed with respect to the Works which bear on the existence and operation of the network operator's railway lines and high-voltage equipment.

3.2 Without limiting the generality of the provisions of clause 3.1, any duly authorised representative of the network operator, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of the network operator's assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS**.

4.0 CONTRACTOR'S REPRESENTATIVES AND STAFF

4.1 The Contractor shall nominate Responsible Representatives of whom at least one shall be available at any hour for call-out in cases of emergency. The Contractor shall provide the Contract Supervisor with the names, addresses and telephone numbers of the representatives.

4.2 The Contractor guarantees that he has satisfied himself that the Responsible Representative is fully conversant with this specification and that he shall comply with all his obligations in respect thereof.

4.3 The Contractor shall ensure that all contractor staff receives relevant awareness, educational and competence training regarding safety as prescribed.

5.0 OCCUPATIONS AND WORK PERMITS

5.1 Work to be done during total occupation or during an occupation between trains or under a work permit shall be done in a manner decided by the Contract Supervisor and at times to suit the network operator requirements.

5.2 The Contractor shall organise the Works in a manner which will minimise the number and duration of occupations and work permits required.

5.3 The network operator will not be liable for any financial or other loss suffered by the Contractor arising from his failure to complete any work scheduled during the period of an occupation or work permit.

5.4 The Contractor shall submit to the Contract Supervisor, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 21 days before they are required. The network operator does not undertake to grant an occupation or work permit for any particular date, time or duration.

5.5 The network operator reserves the right to cancel any occupation or work permit at any time before or during the period of occupation or work permit. If, due to cancellation or change in date or time, the Contractor is not permitted to start work under conditions of total occupation or work permit at the time arranged, all costs caused by the cancellation shall be born by the Contractor except as provided for in clauses 5.6 to 5.8.

5.6 When the Contractor is notified less than 2 hours before the scheduled starting time that the occupation or work permit is cancelled, he may claim reimbursement of his direct financial losses caused by the loss of working time up to the time his labour and plant are employed on other work, but not exceeding the period of the cancelled occupation or work permit.

5.7 When the Contractor is notified less than 2 hours before the scheduled starting time, or during an occupation or work permit, that the duration of the occupation or work permit is reduced, he may claim reimbursement of his direct financial losses caused by the loss of working time due to the reduced duration of the occupation or work permit.

5.8 Reimbursement of the Contractor for any loss of working time in terms of clause 5.6 and 5.7, shall be subject to his claims being submitted within 14 days of the event with full details of labour and plant involved, and provided that the Contract Supervisor certifies that no other work on which the labour and plant could be employed was immediately available.

5.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain from the Contract Supervisor written confirmation of the date, time and duration of the occupation.

5.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of the Work Permit, signifying that he is aware of the work boundaries within which work may be undertaken. After the work for which the permit was granted has been completed, or when the

work permit is due to be terminated, or if the permit is cancelled after the start, the same person who signed portion C shall sign portion D of the Work Permit, thereby acknowledging that he is aware that the electrical equipment is to be made “live”. The Contractor shall advise all his workmen accordingly.

6.0 SPEED RESTRICTIONS AND PROTECTION

6.1 When speed restrictions are imposed by the network operator because of the Contractor's activities, the Contractor shall organise and carry out his work so as to permit the removal of the restrictions as soon as possible.

6.2 When the Contract Supervisor considers protection to be necessary the Contractor shall, unless otherwise agreed, provide all protection including flagmen, other personnel and all equipment for the protection of the network operator's and the Contractor's personnel and assets, the public and including trains.

6.2.1 The network operator will provide training free of charge of the Contractor's flagmen and other personnel performing protection duties. The Contractor shall consult with the Contract Supervisor, whenever he considers that protection will be necessary, taking into account the minimum permissible clearances set out in the Manual for Track Maintenance (Document no. BBB0481):

- Drawing no. BE-97 Sheet 1: Horizontal Clearances: 1065mm gauge (Annexure 1 sheet 1)
- Drawing no. BE-97 Sheet 2: Vertical Clearances: 1065mm gauge (Annexure 1 sheet 2)
- Drawing no. BE-97 Sheet 3: Clearances: Platform (Annexure 1 sheet 3)
- Drawing no. BE-97 Sheet 5: Clearances: 610mm Gauge (Annexure 1 sheet 5)

6.3 The Contractor shall appoint a Responsible Representative to receive and transmit any instruction which may be given by the network operator personnel providing protection.

7.0 ROADS AND ROADS ON THE NETWORK OPERATOR’S PROPERTY

7.1 The Contractor shall take every reasonable precaution to prevent damage to any roads or bridges used to obtain access to the site, and shall select routes, use vehicles, and restrict loads so that any extraordinary traffic as may arise from the moving of plant or material to or from the site shall be limited as far as is reasonably possible.

7.2 The Contractor shall not occupy or interfere in any way with the free use of any public or private road, right-of-way, path or street unless the Contract Supervisor has obtained the approval of the road authority concerned.

8.0 CLEARANCES

8.1 No temporary works shall encroach on the appropriate minimum clearances set out in the Manual for Track Maintenance (Document no. BBB0481):

- Drawing no. BE-97 Sheet 1: Horizontal Clearances: 1065mm gauge (Annexure 1 sheet 1)
- Drawing no. BE-97 Sheet 2: Vertical Clearances: 1065mm gauge (Annexure 1 sheet 2)
- Drawing no. BE-97 Sheet 3: Clearances: Platform (Annexure 1 sheet 3)
- Drawing no. BE-97 Sheet 5: Clearances: 610mm Gauge (Annexure 1 sheet 5)

9.0 STACKING OF MATERIAL

9.1 The Contractor shall not stack any material closer than 3m from the centre line of any railway line without prior approval of the Contract Supervisor.

10.0 EXCAVATION, SHORING, DEWATERING AND DRAINAGE

10.1 Unless otherwise approved by the Contract Supervisor any excavation adjacent to a railway line shall not encroach on the hatched area shown in Figure 1.

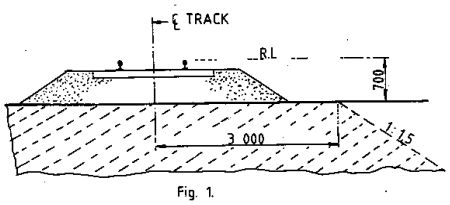


Fig. 1.

10.2 The Contractor shall provide, at his own cost any shoring, dewatering or drainage of any excavation unless otherwise stipulated elsewhere in the Contract.

10.3 Where required by the Contract Supervisor, drawings of shoring for any excavation under or adjacent to a railway line shall be submitted and permission to proceed, obtained before the excavation is commenced.

10.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Contract Supervisor.

10.5 The Contractor shall not block, obstruct or damage any existing drains either above or below ground level unless he has made adequate prior arrangements to deal with drainage.

11.0 FALSEWORK FOR STRUCTURES

11.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Contract Supervisor and his permission to proceed obtained before the falsework is erected. Each drawing shall be given a title and a distinguishing number and shall be signed by a registered professional engineer certifying that he has checked the design of the falsework and that the drawings are correct and in accordance with the design.

11.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Contract Supervisor a certificate signed by a registered professional engineer certifying that he has checked the falsework and that it has been erected in accordance with the drawings. Titles and numbers of the drawings shall be stated in the certificate. Notwithstanding permission given by the Contract Supervisor to proceed, the Contractor shall be entirely responsible for the safety and adequacy of the falsework.

12.0 PILING

12.1 The Contract Supervisor will specify the conditions under which piles may be installed on the network operator’s property.

13.0 UNDERGROUND SERVICES

13.1 No pegs or stakes shall be driven or any excavation made before the Contractor has established that there are no underground services which may be damaged thereby.

13.2 Any damage shall be reported immediately to the Contract Supervisor, or to the official in charge at the nearest station, or to the traffic controller in the case of centralised traffic control.

14.0 BLASTING AND USE OF EXPLOSIVES

14.1 When blasting within 500m of a railway line, the Contractor shall observe the requirements stipulated in this specification.

14.2 No blasting shall be carried out except with the prior written permission of the Contract Supervisor and under such conditions as he may impose.

14.3 On electrified lines the Contractor shall also obtain the permission of the Electrical Officer (Contracts) before blasting, and shall give at least 21 days notice of his intention to blast. No blasting shall be done in the vicinity of electrified lines unless a member of the network operator's electrical personnel is present.

14.4 The Contractor shall arrange for the supply, transport storage and use of explosives.

14.5 The Contractor shall have labour, tools and plant, to the satisfaction of the Contract Supervisor, available on the site to clear immediately any stones or debris deposited on the track or formation by blasting, and to repair any damage to the track or formation immediately after blasting. Repairs to the track shall be carried out only under the supervision of a duly authorised representative of the network operator.

14.6 The Contractor shall notify the Contract Supervisor of his intention to blast at least 21 days before the commencement of any blasting operations.

14.7 Before any blasting is undertaken, the Contractor and the Contract Supervisor shall jointly examine and measure up any buildings, houses or structures in the vicinity of the proposed blasting to establish the extent of any existing cracking or damage to such structures, etc. The Contractor, shall, subject to the provisions stipulated in the Contract Insurance Policy, make good any deterioration of such buildings, houses, or structures, which, in the opinion of the Contract Supervisor, was directly caused by the blasting.

14.8 After completion of the blasting the Contractor shall obtain a written clearance from each landowner in

the vicinity of the blasting operations to the effect that all claims for compensation in respect of damage caused by the blasting operations to their respective properties, have been settled.

14.9 The Contractor shall provide proof that he has complied with the provisions of clauses 10.17.1 to 10.17.4 of the Explosives Regulations (Act 26 of 1956 as amended).

14.10 Blasting within 500m of a railway line will only be permitted during intervals between trains. A person appointed by the Contract Supervisor, assisted by flagmen with the necessary protective equipment, will be in communication with the controlling railway station.

Only this person will be authorised to give the Contractor permission to blast, and the Contractor shall obey his instructions implicitly regarding the time during which blasting may take place.

14.11 The flagmen described in clause14.10, where provided by the network operator, are for the protection of trains and the network operator's property only, and their presence does not relieve the Contractor in any manner of his responsibilities in terms of Explosives Act or Regulations, or any obligation in terms of this Contract.

14.12 The person described in clause 14.10 will record in a book provided and retained by the network operator, the dates and times:-

(i) when each request is made by him to the controlling station for permission to blast;

(ii) when blasting may take place;

(iii) when blasting actually takes place; and

(iv) when he advises the controlling station that the line is safe for the passage of trains.

14.13 Before each blast the Contractor shall record in the same book, the details of the blast to be carried out. The person appointed by the Contract Supervisor and the person who will do the blasting shall both sign the book whenever an entry described in clause 14.12 is made.

15.0 RAIL TROLLEYS

15.1 The use of rail trolleys or trestle trolleys on a railway line for working on high voltage equipment will be permitted only if approved by the Contract Supervisor and under the conditions stipulated by him.

15.2 All costs in connection with trolley working and any train protection services requested by the Contractor shall, be borne by the Contractor, unless otherwise agreed.

16.0 SIGNAL TRACK CIRCUITS

16.1 Where signal track circuits are installed, the Contractor shall ensure that no material capable of conducting an electrical current makes contact between rails of railway line/lines.

16.2 No signal connections on track-circuited tracks shall be severed without the Contract Supervisor's knowledge and consent.

17.0 PENALTY FOR DELAYS TO TRAINS

17.1 If any trains are delayed by the Contractor and the Contract Supervisor is satisfied that the delay was avoidable, a penalty will be imposed on the Contractor as stipulated in the contract, for the period and number of trains delayed.

18.0 SURVEY BEACONS AND PEGS

18.1 The Contractor shall not on any account move or damage any beacon, bench mark, reference mark, signal or trigonometrical station in the execution of the Works without the written approval of the Contract Supervisor.

Should the Contractor be responsible for any such occurrence, he shall report the circumstances to the Contract Supervisor who will arrange with the Director-General of Surveys for replacement of the beacon or mark at the cost of the Contractor.

18.2 The Contractor shall not move or damage any cadastral or mining beacon without the written approval of the Contract Supervisor and before it has been referenced by a registered land surveyor. Any old boundary beacon, which becomes an internal beacon on creation of new boundaries, shall not be moved without the written approval of the Contract Supervisor.

Should the Contractor move or damage any cadastral or mining beacon without authority, he shall be responsible for having it replaced, at his cost, by a land surveyor.

18.3 The Contractor shall preserve all pegs and bench marks. Such survey points shall not be removed without the written approval of the Contract Supervisor. Should any peg or benchmark be removed without authority, the Contract Supervisor will arrange for its replacement and the cost will be recovered from the Contractor. No claim will be considered for delay in replacing any such peg or bench mark. Each peg replaced shall be checked by the Contractor.

18.4 Where a new boundary has been established, beacons on the fence line shall not be disturbed, and fence posts or anchors may not be placed or excavations made within 0,6 m of any beacon without the prior written approval of the Contract Supervisor.

19.0 TEMPORARY LEVEL CROSSINGS

19.1 The Contract Supervisor may, on request of the Contractor, and if necessary for the purpose of execution of the Works, permit the construction of a temporary level crossing over a railway a line at a position approved by the Contract Supervisor and at the Contractor's cost. The period for which the temporary level crossing is permitted will be at the discretion of the Contract Supervisor.

19.2 The Contractor will provide protection and supervise the construction of the road over the track(s) and within the railway servitude at the level crossing, as well as the erection of all road signs and height gauges. All cost to be borne by the applicant.

The Contractor shall exercise extreme caution in carrying out this work, especially in respect of damage to tracks, services, overhead power and communications routes and prevent contact with “live” overhead electrical equipment.

Unless otherwise agreed, the Contractor will provide the service deviations or alterations to the network operator’s track-, structure-, drainage-, electrical-, telecommunications- and train authorisation systems to accommodate the level crossing.

19.3 The Contractor shall take all necessary steps including the provision of gates, locks and, where necessary, watchmen to restrict the use of the temporary level crossing to himself and his employees, his subcontractors and their employees, the staff of the network operator and to such other persons as the Contract Supervisor may permit and of whose identity the Contractor will be advised. If so ordered by the Contract Supervisor, the Contractor shall provide persons to control road traffic using the temporary level crossing. Such persons shall stop all road traffic when any approaching train is within seven hundred and fifty (750) metres of the temporary level crossing, and shall not allow road traffic to proceed over it until the lines are clear.

19.4 The Contractor shall maintain the temporary level crossing within the railway servitude in good condition for the period it is in use. A temporary agreement with the road authority to be concluded for the maintenance of the level crossing outside the railway servitude.

19.5 When the temporary level crossing is no longer required by the Contractor, or permitted by the network operator, the Contractor shall at his own cost remove it and restore the site and the network operator’s track-, structure-, drainage-, electrical-, telecommunications- and train authorisation systems to its original condition. Work over the tracks and within the railway servitude will be supervised by the network operator.

20.0 COMPLETION OF THE WORKS

20.1 On completion of the works, the Contractor shall remove all the remaining construction plant and material from the site, other than material which is the property of the network operator, and leave the site in a clean, neat and tidy condition. If material and plant is required for the liability and maintenance period the Contract supervisor must authorise it’s retention on site.

21.0 PROTECTION OF PERSONS AND PROPERTY

21.1 The Contractor shall provide and maintain all lights, guards, barriers, fencing and watchmen when and where necessary or as required by the Contract Supervisor or by any statutory authority, for the protection of the Works and for the safety and convenience of the public.

Red, yellow, green or blue lights may not be used by the Contractor as they can be mistaken for signals. Red, yellow, green or white flags shall only be used for protection by the Contractor. Within the precincts of a port the Contractor shall obtain the permission of the Port Captain before installing any light.

21.2 The Contractor shall take all the requisite measures and precautions during the course of the Works to:

(i) protect the public and property of the public,

(ii) protect the property and workmen of both the network operator and the Contractor,

(iii) avoid damage to and prevent trespass on adjoining properties, and

(iv) ensure compliance with any instruction issued by the Contract Supervisor or other authorised person, and with any stipulation embodied in the contract documents which affects the safety of any person or thing.

21.3 The network operator will provide, at its own cost, protection for the safe working of trains during such operations as the Contract Supervisor may consider necessary. Protection by the network operator for any purpose whatsoever, does not absolve the Contractor of his responsibilities in terms of the Contract.

21.4 The Contractor shall take all precautions and appoint guards, watchmen and compound managers for prevention of disorder among and misconduct by the persons employed on the Works and by any other persons, whether employees or not, on the work site and for the preservation of the peace and protection of persons and property in the direct neighbourhood. Any relocation of camps because of disorder shall be at the Contractor's expense.

21.5 All operations necessary for the execution of the Works, including the provision of any temporary work and camping sites, shall be carried out so as not to cause veldt fires, ground and environmental pollution, soil erosion or restriction of or interference with streams, furrows, drains and water supplies.

If the original surface of the ground is disturbed in connection with the Works, it shall be made good by the Contractor to the satisfaction of the land owner, occupier or responsible authority.

21.6 The Contractor shall take all reasonable steps to minimise noise and disturbance when carrying out the Works, including work permitted outside normal working hours.

21.7 Dumping of waste or excess materials by the Contractor shall, in urban areas, be done under the direction and control of, and at sites made available by the local authority. Dumping outside local authority boundaries shall be done only with the express permission and under the direction and control of the Contract Supervisor.

21.8 The Contractor shall comply with environmental protection measures and specifications stipulated by the Contract Supervisor and/or local and environmental authorities.

22.0 INTERFERENCE WITH THE NETWORK OPERATOR'S ASSETS AND WORK ON OPEN LINES

22.1 The Contractor shall not interfere in any manner whatsoever with an open line, nor shall he carry out any work or perform any act which affects the security, use or safety of an open line except with the authority of the Contract Supervisor and in the presence of a duly authorised representative of the network operator.

22.2 The Contractor shall not carry out any work or operate any plant, or place any material whatsoever nearer than three metres from the centre line of any open line except with the written permission of the Contract Supervisor and subject to such conditions as he may impose.

22.3 Care must be taken not to interfere with or damage any services such as overhead wire routes, cables or pipes and optical fibre cable, except as provided for the work specified. The Contractor will be held responsible for any damage to or interruption of such services arising from any act or omission on his part or of any of his employees, or persons engaged by him on the Works. The cost of repairing, replacing or restoring the services, as well as all other costs arising from any damage to services, shall be borne by, and will be recovered from the Contractor.

22.4 Authority granted by the Contract Supervisor and the presence of an authorised representative of the network operator in terms hereof, shall not relieve the Contractor of his duty to comply with this specification.

23.0 ACCESS, RIGHTS-OF-WAY AND CAMPSITES

23.1 Where entry onto the network operator's property is restricted, permission to enter will be given only for the purpose of carrying out the Works and will be subject to the terms and conditions laid down by the network operator.

23.2 The Contractor shall arrange for campsites, workplaces and access thereto as well as for any right-of-

way over private property to the site of the Works, and for access within the boundaries of the network operator's property. The owners of private property to be traversed shall be approached and treated with tact and courtesy by the Contractor, who shall, if necessary, obtain a letter of introduction to such property owners from the Contract Supervisor.

The Contractor shall be responsible for the closing of all gates on roads and tracks used by him or his employees. Except with the prior approval of the Contract Supervisor and the owner or occupier of any private land to be traversed, the Contractor shall not cut, lower, damage, remove or otherwise interfere with any fence or gate which is either on the network operator's property or on private property and which restricts access to the Works. Where such approval has been given, the Contractor shall prevent entry of animals or unauthorised persons onto the network operator's or private property, and shall make the fences safe against trespass at the close of each day's work.

23.3 The Contractor shall take all reasonable steps to confine the movement of vehicles and plant to the approved right-of-way to minimise damage to property, crops and natural vegetation.

23.4 When access is no longer required, and before completion of the Works, the Contractor shall repair, restore or replace any fence or gate damaged during execution of the Works to the satisfaction of the Contract Supervisor and shall furnish the Contract Supervisor with a certificate signed by the owner and occupier of land over which he has gained access to a campsite, workplace and the Works, certifying that the owner and occupier have no claim against the Contractor or the network operator arising from the Contractor's use of the land. Should the Contractor be unable to obtain the required certificate, he shall report the circumstances to the Contract Supervisor.

24.0 SUPERVISION

24.1 The Contract Supervisor will provide overall technical superintendence of the Works, and may direct the Contractor in terms of the provisions of the Contract or in respect of any measures which the Contract Supervisor may require for the operations of the network operator, the safety of trains, property and workmen of the network operator, and for the safety of other property and persons. The Contractor shall carry out the directions of the Contract Supervisor. The superintendence exercised by the Contract Supervisor, including any agreement, approval, refusal or withdrawal of any approval given, shall not relieve the Contractor of any of his duties and liabilities under the Contract, and shall not imply any assumption by the network operator or by the Contract Supervisor of the legal and other responsibilities of the Contractor in carrying out the Works.

24.2 The Contract Supervisor may delegate to any deputy or other person, any of his duties or functions under the Contract. On receiving notice in writing of such delegation, the Contractor shall recognise and obey the deputy or person to whom any such duties or functions have been delegated as if he were the Contract Supervisor.

24.3 The Contractor shall exercise supervision over the Works at all times when work is performed or shall be represented by an agent having full power and authority to act on behalf of the Contractor. Such agent shall be competent and responsible, and have adequate experience in carrying out work of a similar nature to the Works, and shall exercise personal supervision on behalf of the Contractor. The Contract Supervisor shall be notified in writing of such appointment which will be subject to his approval.

24.4 The Contractor or his duly authorised agent shall be available on the site at all times while the Works are in progress to receive the orders and directions of the Contract Supervisor.

25.0 HOUSING OF EMPLOYEES

25.1 The Contractor shall, where necessary, make his own arrangements for suitable housing of his employees. Where temporary housing is permitted by the Contract Supervisor on any part of the site, the Contractor shall provide suitable sanitation, lighting and potable water supplies in terms of the requirements of the local authority or the current network operator’s specification; Minimum Communal Health Requirements in Areas outside the Jurisdiction of a Local Authority - E.4B, as applicable.

25.2 Fouling the area inside or outside the network operator's boundaries shall be prevented. The Contractor will be called upon by the Contract Supervisor to dispose of any foul or waste matter generated by the Contractor.

26.0 OPTICAL FIBRE CABLE ROUTES

26.1 The Contractor shall not handle, impact, move or deviate any optical fibre cable without prior approval.

26.2 Works that in any way affect the optical fibre cable requires prior approval from the Contract Supervisor

who will determine the work method and procedures to be followed.

PART B - SPECIFICATION FOR WORK NEAR HIGH-VOLTAGE ELECTRICAL EQUIPMENT

27.0 GENERAL

27.1 This specification is based on the contents of Transnet's publication ELECTRICAL SAFETY INSTRUCTIONS, as amended, a copy of which will be made available on loan to the Contractor for the duration of the contract.

These instructions apply to all work near "live" high-voltage equipment maintained and/or operated by the network operator, and the onus rests on the Contractor to ensure that he obtains a copy.

27.2 This specification must be read in conjunction with and not in lieu of the Electrical Safety Instructions.

27.3 The Contractor's attention is drawn in particular to the contents of Part I, Sections 1 and 2 of the Electrical Safety Instructions.

27.4 The Electrical Safety Instructions cover the minimum safety precautions which must be taken to ensure safe working on or near high-voltage electrical equipment, and must be observed at all times. Should additional safety measures be considered necessary because of peculiar local conditions, these may be ordered by and at the discretion of the Electrical Officer (Contracts).

27.5 The Contractor shall obtain the approval of the Electrical Officer (Contracts) before any work is done which causes or could cause any portion of a person's body or the tools he is using or any equipment he is handling, to come within 3 metres of any "live" high-voltage equipment.

27.6 The Contractor shall regard all high-voltage equipment as "live" unless a work permit is in force.

27.7 Safety precautions taken or barriers erected shall comply with the requirements of the Electrical Officer (Contracts), and shall be approved by him before the work to be protected is undertaken by the Contractor. The Contractor shall unless otherwise agreed, bear the cost of the provision of the barriers and other safety precautions required, including the attendance of the network operator's staff where this is necessary.

27.8 No barrier shall be removed unless authorised by the Electrical Officer (Contracts).

28.0 WORK ON BUILDINGS OR FIXED STRUCTURES

28.1 Before any work is carried out or measurements are taken on any part of a building, fixed structure or earthworks of any kind above ground level situated within 3 metres of "live" high-voltage equipment, the Electrical Officer (Contracts) shall be consulted to ascertain the conditions under which the work may be carried out.

28.2 No barrier erected to comply with the requirements of the Electrical Officer (Contracts) shall be used as temporary staging or shuttering for any part of the Works.

28.3 The shuttering for bridge piers, abutments, retaining walls or parapets adjacent to or over any track may be permitted to serve as a barrier, provided that it extends at least 2,5 metres above any working level in the case of piers, abutments and retaining walls and 1,5 metres above any working level in the case of parapets.

29.0 WORK DONE ON OR OUTSIDE OF ROLLING STOCK, INCLUDING LOADING OR UNLOADING

29.1 No person may stand, climb or work, whilst on any platform, surface or foothold:

29.1.1 higher than the normal unrestricted access way, namely -

29.1.1.1 external walkways on diesel, steam and electric locomotives, steam heat vans, etc. and

29.1.1.2 walkways between coaches and locomotives.

29.1.2 of restricted access ways in terms of the Electrical Safety Instructions namely -

29.1.2.1 the floor level of open wagons

29.1.2.2 external walkways or decks of road-rail vehicles, on-track maintenance machines and material trains.

29.1.3 Unauthorised staff working on these platforms must be directly supervised by duly authorised persons in terms of clause 607.1.3 of the Electrical Safety Instructions. These persons must attend the relevant electrical safety module training. A letter of training must then be issued by an accredited training authority. A Category C Certificate of Authority must be obtained from the

local depot examining officer.

29.2 When in the above positions no person may raise his hands or any equipment he is handling above his head.

29.3 In cases where the Contractor operates his own rail mounted equipment, he shall arrange for the walkways on this plant to be inspected by the Electrical Officer (Contracts) and approved, before commencement of work.

29.4 The handling of long lengths of material such as metal pipes, reinforcing bars, etc should be avoided, but if essential they shall be handled as nearly as possible in a horizontal position below head height.

29.5 The Responsible Representative shall warn all persons under his control of the danger of being near “live” high-voltage equipment, and shall ensure that the warning is fully understood.

29.6 Where the conditions in clauses 30.1 to 30.4 cannot be observed the Electrical Officer (Contracts), shall be notified. He will arrange for suitable Safety measures to be taken. The Electrical Officer (Contracts), may in his discretion and in appropriate circumstances, arrange for a suitable employee of the Contractor to be specially trained by the network operator and at the Contractor’s cost, as an Authorised Person to work closer than 3 metres from “live” overhead conductors and under such conditions as may be imposed by the senior responsible electrical engineer of the network operator.

30.0 USE OF EQUIPMENT

30.1 Measuring Tapes and Devices

30.1.1 Measuring tapes may be used near “live” high-voltage equipment provided that no part of any tape or a person's body comes within 3 metres of the “live” equipment.

30.1.2 In windy conditions the distance shall be increased to ensure that if the tape should fall it will not be blown nearer than 3 metres from the “live” high-voltage equipment.

30.1.3 Special measuring devices longer than 2 metres such as survey sticks and rods may be used if these are of non-conducting material and approved by the responsible Electrical Engineer of the network operator, but these devices must not be used within 3 metres of “live” high-voltage equipment in rainy or wet conditions.

30.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in clauses 31.1.1 to 31.1.3 are required.

30.1.5 The restrictions described in 31.1.1 to 31.1.3 do not apply on a bridge deck between permanent parapets nor in other situations where a barrier effectively prevents contact with the “live” high-voltage equipment.

30.2 Portable Ladders

30.2.1 Any type of portable ladder longer then 2 metres may only be used near “live” high-voltage equipment under the direct supervision of the Responsible Representative. He shall ensure that the ladder is always used in such a manner that the distance from the base of the ladder to any “live” high-voltage equipment is greater than the fully extended length of the ladder plus 3 metres. Where these conditions cannot be observed, the Electrical Officer (Contracts) shall be advised, and he will arrange for suitable safety measures to be taken.

31.0 CARRYING AND HANDLING MATERIAL AND EQUIPMENT

31.1 Pipes, scaffolding, iron sheets, reinforcing bars and other material which exceeds 2 metres in length shall be carried completely below head height near “live” high-voltage equipment. For maximum safety such material should be carried by two or more persons so as to maintain it as nearly as possible in a horizontal position. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any “live” high-voltage equipment.

31.2 Long lengths of wire or cable shall never be run out in conditions where a part of a wire or cable can come within 3 metres of any “live” high-voltage equipment unless the Electrical Officer (Contracts) has been advised and has approved appropriate safety precautions.

31.3 The presence of overhead power lines shall always be taken account of especially when communications lines or cables or aerial cables, stay wires, etc. are being erected above ground level.

32.0 PRECAUTIONS TO BE TAKEN WHEN ERECTING OR REMOVING POLES, ANTENNAE, TREES ETC.

32.1 A pole may be handled for the purpose of erection or removal near high-voltage equipment under the following conditions:

(i) If the distance between the point at which the pole is to be erected or removed and the nearest “live” high-voltage equipment is more than the length of the pole plus 3 metres, the work shall be supervised by the Responsible Representative.

(ii) If the distance described in (i) is less than the length of the pole plus 3 metres, the Electrical Officer (Contracts) shall be consulted to arrange for an Authorised Person to supervise the work and to ensure that the pole is earthed where possible. The pole shall be kept in contact with the point of erection, and adequate precautions shall be taken to prevent contact with “live” high-voltage equipment.

32.2 The cost of supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

32.3 The provisions of clauses 33.1 and 33.2 shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

33.0 USE OF WATER

33.1 No water shall be used in the form of a jet if it can make contact with any “live” high-voltage equipment or with any person working on such equipment.

34.0 USE OF CONSTRUCTION PLANT

34.1 "Construction plant" entails all types of plant including cranes, piling frames, boring machines, excavators, draglines, dewatering equipment and road vehicles with or without lifting equipment.

34.2 When work is being undertaken in such a position that it is possible for construction plant or its load to come within 3 metres of “live” high-voltage equipment, the Electrical Officer (Contracts) shall be consulted. He will arrange for an Authorised Person to supervise the work and to ensure that the plant is adequately earthed. The Electrical Officer (Contracts) will decide whether further safety measures are necessary.

34.3 The cost of any supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

34.4 When loads are handled by cranes, non-metallic rope hand lines shall be used, affixed to such loads so as to prevent their swinging and coming within 3 metres of “live” high-voltage equipment.

34.5 Clauses 35.1 to 35.4 shall apply *mutatis mutandis* to the use of maintenance machines of any nature.

35.0 WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT

35.1 If the Responsible Representative finds that the work cannot be done in safety with the high-voltage electrical equipment “live”, he shall consult the Electrical Officer (Contracts) who will decide on the action to be taken.

35.2 If a work permit is issued the Responsible Representative shall-

(i) before commencement of work ensure that the limits within which work may be carried out have been explained to him by the Authorised Person who issued the permit to him, and that he fully understands these limits.

(ii) sign portion C of the permit before commencement of work;

(iii) explain to all persons under his control the limits within which work may be carried out, and ensure that they fully understand these limits;

(iv) care for the safety of all persons under his control whilst work is in progress; and

(v) withdraw all personnel under his control from the equipment on completion of the work before he signs portion D of the work permit.

36.0 TRACTION RETURN CIRCUITS IN RAILS

36.1 DANGEROUS CONDITIONS CAN BE CREATED BY REMOVING OR SEVERING ANY BOND.

36.2 Broken rails with an air gap between the ends, and joints at which fishplates are removed under "broken bond" conditions, are potentially lethal. The rails on either side of an air gap between rail ends on electrified lines shall not be touched simultaneously until rendered safe by the network operator personnel.

36.3 The Contractor shall not break any permanent bonds between rails or between rails and any structure. He shall give the Contract Supervisor at least 7 days written notice when removal of such bonds is necessary.

36.4 No work on the track which involves interference with the traction return rail circuit either by cutting or removing the rails, or by removal of bonds shall be done unless the Electrical Officer (Contracts) is consulted. He will take such precautions as may be necessary to ensure continuity of the return circuit before permitting the work to be commenced.

37.0 HIGH-VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY THE NETWORK OPERATOR

Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by the network operator, the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, or the Mines Health and Safety Act (Act 29 of 1996), shall apply.

Such equipment includes:-

(i) Eskom and municipal equipment;

(ii) The Contractor's own power supplies; and

(iii) Electrical equipment being installed but not yet taken over from the Contractor.

END

MANDATARY AGREEMENT

OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (AS AMENDED)

AGREEMENT WITH MANDATORY
In terms of Section 37(1) & (2)

WRITTEN AGREEMENT ENTERED INTO AND BETWEEN

Transnet SOC Ltd
(Hereinafter referred to as the Employer)

AND

(Hereinafter referred to as Mandatory (Principal Contractor)

Compensation Fund Number :

Project Name :

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PREAMBLE

WHEREAS section 37(1) & (2) of the Occupational Health and Safety Act No 85 of 1993 ("the Act") requires that parties have an agreement in writing to ensure compliance by a mandatory in line with the provisions of the Act.

AND WHEREAS Transnet SOC Ltd requires the services of the Contractors to execute certain projects within its workshops.

AND WHEREAS TRANSNET SOC LTD can be better served by Contractors who have the infrastructure, specialist employees and expertise to execute such projects at the highest level of efficiency on short notice.

NOW THEREFORE the parties agree as follows;

1. DEFINITIONS

For the purpose of this agreement, unless the context indicates otherwise, the following definitions are set out for the terms indicated:

1.1 "**Act**" means the Occupational Health and Safety Act No 85 of 1993;

1.2 "**Agreement**" means this Mandatary agreement;

1.3 **"Contractor "** means the Mandatory;

1.4 **"COID Act"** means the Compensation for Occupational Injuries and Diseases Act No 130 of 1993.

1.5 "**Effective Date**" means the date of signature of this Agreement by the last party signing hereto;

1.6 "**Employer**" refers to TRANSNET SOC LTD;

1.7 "**Mandatary**" means an agent, Contractor or sub-contractor for work, but without derogating from the status in his own right as an employer or user;

1.8 "**Parties**" means TRANSNET SOC LTD and the Contractor, and "**Party**" shall mean either one of them, as the context indicates;

1.9 **"Principal Contract"** means the appointed contractor whereby such contractor has to provide goods and or services to TRANSNET SOC LTD.

1.10 "**Regulations**" means regulations promulgated in terms of the relevant legislation.

1.11 "**Section**" means the relevant section of the Occupational Health and Safety Act No 85 of 1993

1.12 "**Services**" means the services to be provided by the Contractor to TRANSNET SOC LTD.

1.13 "**TRANSNET SOC LTD**" means Transnet Group and all its operating divisions and Specialist units with (Registration No. **1990/000900/30),** a public company incorporated in accordance with the company laws of the Republic of South Africa;

2. INTERPRETATION

2.1 Clause headings in this Agreement are included for ease of reference only and do not form part of this Agreement for the purposes of interpretation or for any other purpose. No provision shall be construed against or interpreted to the disadvantage of either Party hereto by reason of such Party having or being deemed to have structured or drafted such provision.

2.2 Any term, word or phrase used in this Agreement, other than those defined under the clause heading "Definitions" shall be given its plain English meaning, and those terms, words, acronyms, and phrases used in this Agreement will be interpreted in accordance with the generally accepted meanings accorded thereto.

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2.3 A reference to the singular incorporates a reference to the plural and vice versa.

2.4 A reference to natural persons incorporates a reference to legal persons and vice versa.

2.5 A reference to a particular gender incorporates a reference to the other gender.

3. REPORTING

3.1 The Mandatary and/or his designated person appointed in terms of Section 16(2) of the Occupational Health and Safety Act 85 of 1993 ("the OHS Act") shall report to the Risk Manager and/or a Project Manager and/or a representative designated by the Employer prior to commencing the work at the premises of the Employer.

4. WARRANTY OF COMPLIANCE

4.1 In terms of this Agreement the Mandatary warrants that he agrees to any of the arrangements and procedures as prescribed by the Employer and as provided for in terms of Section 37(2) of the OHS Act for the purposes of compliance with the OHS Act.

4.2 The Mandatary further warrants that he and/or his employees undertake to maintain such compliance with the OHS Act. Without derogating from the generality of the above, nor from the provisions of the said Agreement, the Mandatary shall ensure that the clauses as hereunder described are at all times adhered to by himself and his employees.

4.3 The Mandatary hereby undertakes to ensure that the health and safety of any other person on the premises is not endangered by the conduct of his activities and that of his employees.

5. APPOINTMENTS AND TRAINING

5.1 The Mandatary shall appoint competent persons as per Section 16(2) of the OHS Act. Any such appointed person shall be trained on any occupational health and safety matter and the OHS Act provisions pertinent to the work is to be performed under his responsibility. Copies of any appointments made by the Mandatary shall immediately be provided to the Employer.

5.2 The Mandatary shall further ensure that all his employees are trained on the health and safety aspects relating to the work to be done on the premises of the Employer and that they understand the hazards associated with such work being carried out on the premises. Without derogating from the foregoing, the Mandatary shall, in particular, ensure that all his users or operators of any materials, machinery or equipment are properly trained in the use of such materials, machinery or equipment.

5.3 Notwithstanding the provisions of the above, the Mandatary shall ensure that he, his appointed responsible persons and his employees are at all times familiar with the provisions of the OHS Act, and that they comply with the provisions of the Act.

6. SUPERVISION, DISCIPLINE AND REPORTING

6.1 The Mandatary shall ensure that all work performed on the Employer's a premise is done under strict supervision and that no unsafe or unhealthy work practices are permitted. Discipline regarding health and safety matters shall be strictly enforced against any of his employees regarding non-compliance by such employee with any health and safety matters.

6.2 The Mandatary shall further ensure that his employees report to him all unsafe or unhealthy work situations immediately after they become aware of such conditions and that he in turn immediately reports these to the Employer and/or his representative.

7. ACCESS TO THE OHS ACT

7.1 The Mandatary shall ensure that he has an updated copy of the OHS Act on site at all times and that this is accessible to his appointed responsible persons and employees, save that the parties may make arrangements for the Mandatary and his appointed responsible persons and employees to have access to the Employer's updated copy/copies of the Act.

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8. COOPERATION

8.1 The Mandatary and/or his responsible persons and employees shall provide full co-operation and information if and when the Employer or his representative inquires into any occupational health and safety issues concerning the Mandatary. It is hereby recorded that the Employer and his representative shall at all times be entitled to make such inquiry.

8.2 Without derogating from the generality of the above, the Mandatary and his responsible persons shall make available to the Employer and his representative, on request, all and/or any checklists and inspection registers required to be kept by him in respect of any of his materials, machinery or equipment.

9. WORK PROCEDURES

9.1 The Mandatary shall, after having established the dangers associated with the work performed, develop and implement mitigation measures to minimize or eliminate such dangers for the purpose of ensuring a healthy and safe working environment. The Mandatary shall then ensure that his responsible persons and employees are familiar with such mitigation measures.

9.2 The Mandatary shall implement any other safe work practices as prescribed by the Employer and shall ensure that his responsible persons and employees are made conversant with such other safe work practices as prescribed by the Employer and that his responsible persons and employees adhere to such safe work practices.

9.3 The Mandatary shall ensure that work for which any permit is required by the Employer is not performed by his employees prior to the Employer obtaining such permit from the Mandatary.

10. HEALTH AND SAFETY MEETINGS

10.1 If required in terms of the OHS Act, the Mandatary shall establish his own health and safety committee(s) and ensure that his employees, being the committee members, provide health and safety representatives to attend the Employer's health and safety committee meetings.

11. COMPENSATION REGISTRATION

11.1 The Mandatary shall ensure that he has a valid proof of registration with the Compensation Commissioner, as required in terms of **COID Act**, and that all payments owing to the Commissioner are discharged. The Mandatary shall further ensure that the cover remain in force while any such employee is present on the premises.

12. MEDICAL EXAMINATIONS

12.1 The Mandatary shall ensure that all his employees undergo routine medical examinations and that they are medically fit for the purposes of the work they are to perform.

13. INCIDENT REPORTING AND INVESTIGATION

13.1 All incidents referred to in Section 24 of the OHS Act shall be reported by the Mandatary to the Department of Labour and to the Employer. The Employer shall further be provided with copies of any written documentation relating to any incident.

13.2 The Employer retains an interest in the reporting of any incident as described above as well as in any formal investigation and/or inquiry conducted in terms of section 32 of the OHS-Act into such incident.

14. SUBCONTRACTORS

14.1 The Mandatary shall notify the Employer of any subcontractor he may wish to perform work on his behalf on the Employer's premises. It is hereby recorded that all the terms and provisions contained in this clause shall be equally binding upon the subcontractor prior to the subcontractor commencing with the work. Without derogating from the generality of this paragraph:

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14.1.1 The Mandatary shall ensure that training as discussed under appointments and training, is provided prior to the subcontractor commencing work on the Employer's premises.

14.1.2 The Mandatary shall ensure that work performed by the subcontractor is done under his strict supervision, discipline and reporting.

14.1.3 The Mandatary shall inform the Employer of any health and safety hazards and/or issue that the subcontractor may have brought to his attention.

14.1.4 The Mandatary shall inform the Employer of any difficulty encountered regarding compliance by the subcontractor with any health and safety instruction, procedure and/or legal provision applicable to the work the subcontractor performs on the Employer's premises.

15. SECURITY AND ACCESS

15.1 The Mandatary and his employees shall enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the Employer. The Mandatary shall ensure that employees observe the security rules of the Employer at all times and shall not permit any person who is not directly associated with the work from entering the premises.

15.2 The Mandatary and his employees shall not enter any area of the premises that is not directly associated with their work.

15.3 The Mandatary shall ensure that all materials, machinery or equipment brought by him onto the premises are recorded at the main gate(s) and/or checkpoint(s). Failure to do this may result in a refusal by the Employer to allow the materials, machinery or equipment to be removed from the Employer's premises.

16. FIRE PRECAUTIONS AND FACILITIES

16.1 The Mandatary shall ensure that an adequate supply of fire-protection and first-aid facilities are provided for the work to be performed on the Employer's premises, save that the Parties may mutually make arrangements for the provision of such facilities.

16.2 The Mandatary shall further ensure that all his employees are familiar with fire precautions at the premises, which includes fire-alarm signals and emergency exits, and that such precautions are adhered to.

17. ABLUTION FACILITIES

17.1 The Mandatary shall ensure that an adequate supply of ablution facilities are provided for his employees performing work on the Employer's premises, save that the parties may mutually make arrangements for the provision of such facilities.

18. HYGIENE AND CLEANLINESS

18.1 The Mandatary shall ensure that the work site and surround area is at all times maintained to the reasonably practicable level of hygiene and cleanliness. In this regard, no loose materials shall be left lying about unnecessarily and the work site shall be cleared of waste material regularly and on completion of the work.

19. NO NUISANCE

19.1 The Mandatary shall ensure that neither he nor his employees undertake any activity that may cause environmental impairment or constitute any form of nuisance to the Employer and/or his surroundings.

19.2 The Mandatary shall ensure that no hindrance, hazard, annoyance or inconvenience is inflicted on the Employer, another Mandatary or any tenants. Where such situations are unavoidable, the Mandatary shall give prior notice to the Employer.

20. INTOXICATION NOT ALLOWED

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20.1 No intoxicating substance of any form shall be allowed on site. Any person suspected of being intoxicated shall not be allowed on the site. Any person required to take medication shall notify the relevant responsible person thereof, as well as the potential side effects of the medication.

21. PERSONAL PROTECTIVE EQUIPMENT

21.1 The Mandatary shall ensure that his responsible persons and employees are provided with adequate personal protective equipment (PPE) for the work they may perform and in accordance with the requirements of General Safety Regulation 2 (1) of the OHS Act. The Mandatary shall further ensure that his responsible persons and employees wear the PPE issued to them at all material times.

22. PLANT, MACHINERY AND EQUIPMENT

22.1 The Mandatary shall ensure that all the plant, machinery, equipment and/or vehicles he may wish to utilize on the Employer's premises is/are at all times of sound order and fit for the purpose for which it/they is/are attended to, and that it/they complies/comply with the requirements of Section 10 of the OHS Act.

22.2 In accordance with the provisions of Section 10(4) of the OHS Act, the Mandatary hereby assumes the liability for taking the necessary steps to ensure that any article or substance that it erects or installs at the premises, or manufactures, sells or supplies to or for the Employer, complies with all the prescribed requirements and will be safe and without risks in terms of health and safety when properly used.

23. NO USAGE OF THE EMPLOYER'S EQUIPMENT

23.1 The Mandatary hereby acknowledges that his employees are not permitted to use any materials, machinery or equipment of the Employer unless the prior written consent of the Employer has been obtained, in which case the Mandatary shall ensure that only those persons authorized to make use of such materials, machinery or equipment, have access thereto.

24. TRANSPORT

24.1 The Mandatary shall ensure that all road vehicles used on the premises are in a roadworthy condition and are licensed and insured. The Mandatary shall ensure that all drivers shall have relevant and valid driving licenses and the Mandatary shall ensure that no vehicle/s shall carry passengers unless it is specifically designed to do and that all drivers shall adhere to the speed limits and road signs on the premises at all times.

24.2 In the event that any hazardous substances are to be transported on the premises, the Mandatary shall ensure that the requirements of the Hazardous Substances Act 15 of 1973 are complied with fully all times.

25. CLARIFICATION

25.1 In the event that the Mandatary requires clarification of any of the terms or provisions of this Agreement, he should take the necessary steps to contact the Risk Manager of the Employer to obtain such clarification.

26. DURATION OF AGREEMENT

26.1 This Agreement shall remain in force for the duration of the work to be performed by the Mandatary and/or while any of the Mandatary's employees are present on the Employer's premises.

27. NON COMPLIANCE WITH THE AGREEMENT

27.1 If the Mandatory fails to comply with any provisions of this Agreement, the Employer shall be entitled to give the mandatory 7 (seven) days written notice to remedy such non-compliance and if the Mandatory fails to comply with such notice, then the Employer shall forthwith be entitled but not obliged, without prejudice to any other rights or remedies which the mandatory may have in law,

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271.1 to suspend the main Agreement; or

27.1.2 To claim immediate performance and/or payment of such obligations.

27.2 Should mandatory continue to breach the contract on three occasions, then the Employer is authorised to suspend the main contract without complying with the condition stated in the clause above.

28. HEADINGS

The headings as contained in this Agreement are for reference purposes only and shall not be construed as having any interpretative value in them or as giving any indication as to the meaning of the contents of the paragraphs contained in this Agreement.

Thus done and signed at _____on the _____ day of _____ 202_

_____

For and on behalf of the Employer

Witnesses:

1. _____

2. _____

at _____on the _____ day of _____ 202__

_____

for and on behalf of the Mandatary

Witnesses:

3. _____

4. _____

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1April 2026

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 2026 to 31 March 2027 (Both days inclusive) DIVISION: Transnet Freight Rail, Transnet Engineering, Transnet Properties, Transnet Pipelines, Transnet National Ports Authority, Transnet Port Terminals and Transnet Rail Infrastructure Manager
THE INSURED'S VAT NO:	4720103177 THE INSURED'S
COMPANY REGISTRATION NO:	1990/000900/30
POSTAL ADDRESS (Head Office):	96 Rissik Street, Braamfontein, Johannesburg, PO Box 72501, Parkview 2122

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(s)	Santam, Consort and Hollard Insurance
Lead Insurer's 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.
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

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	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 76cm.

Definitions

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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	24 Months
Main Policy Extensions	• Costs & Expenses - Limited to a 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.

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- 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 10% of the total estimated contract value in the aggregate.
- 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

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- Beneficial Occupation–12 months
- Risk Mitigation–Safety Measures with Respect to Precipitation, Flood and Inundation–10 years return period

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	R100,000 per occurrence to apply	
Electrical Cables, Wiring and Accessories	10% of claim minimum R100,000	

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: Santam
Policy Number: 6000/132335
Territorial Limits: The Republic of South Africa.
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 at award exceeding 48 months but 60 months in respect of contracts awarded prior to 1 April 2020 for rail maintenance contracts For

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Transnet Freight & 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).

c) Contracts with a Contractual Defects Liability Maintenance Period exceeding 24 months.
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.
e) Contracts in or on any aircraft.
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 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	

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	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** a) 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. b) 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	Santam
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:** a) Contracts which at award stage have a value in excess of R 1,000,000,000. b) Contracts with an estimated construction period at award exceeding 48 months (excluding Defects Liability/Maintenance period). c) Contracts with a Contractual Defects Liability Maintenance Period exceeding 24 months. 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.

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e) Contracts in or on any aircraft.
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 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 because 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.

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- 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 non-compensating damages of any kind.
- Excludes liability from the hazardous nature of asbestos.
- Excludes medical malpractice.
- Excludes failure to meetcontractual 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.

Langa Sigodi



Account Executive: Corporate and Global Markets

TRANSNET RAIL INFRASTRUCTURE MANAGER SAFETY HEALTH AND ENVIRONMENTAL (SHE) COMPLIANCE SPECIFICATIONS FOR CONTRACTORS

CONTRACT NAME:	To appoint service providers to provision the radio high sites refurbishment works to enable digital radio communication network nationally on an as and when required basis.	
CONTRACT SCOPE:	Category 1: Digital Radio Equipment Shelter Category 2: Civil Works for Structural Enhancement Category 3: Support Structure: Cable Trays (indoor and Outdoor) Category 4: Cooling: Air Conditioning Systems Category 5: Technological Security Systems Category 6: Earthing, Lightning Protection and Generator Switches Category 7: DC Backup Power Systems (Rectifiers, Batteries, Distribution Boxes and Circuit Breakers) and Hardening Battery Solutions.	
CONTRACT LOCATION:	Countrywide	
CONTRACT DURATION:	As and when required basis	
CONTRACT MANAGER:	Mzamo Tikwayo	
TRIM TECHNICAL OFFICER:	Mzamo Tikwayo	
SHE SPECIFICATION APPROVAL		
TITLE:	**NAME:**	**SIGNATURE:**
TRIM CONTRACT MANAGER / TECHNICAL OFFICER / TRIM AGENT	Mzamo Tikwayo	…… **DATE:**
RISK / ENVIRONMENTAL SPECIALIST	Alice Ramuhulu	…… **DATE:**
SAFETY SPECIALIST / MANAGER	Kedibone Moselane	…… **DATE:**

Contractor Signature…… . Date……

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1. Introduction

1.1 This Safety, Health and Environmental (SHE) specification is Transnet Rail Infrastructure Manager (TRIM) minimum requirements to be met by contractors when performing work for or on behalf of TRIM. They set out the requirements to be followed by the Contractor and other contractors so that the health and safety of all person's potentially at risk may receive the same priority as other facets of the contract.

1.2 The Contractor shall **develop a SHE plan and prepare a SHE file** based on these requirements, risk assessment as well as all the relevant applicable legislation. The contractor shall remain accountable for the quality and execution of his health and safety programme for his employees and sub-contractor employees. This specification in no way releases the contractors from compliance with the relevant legislation.

2 Purpose

2.1 The purpose of this specification is to ensure that the Contractor provides and maintains, as far as reasonably practicable a safe working environment for all employees and the public whilst performing work for or on behalf of TRIM.

2.2 This specification form an integral part of the contract, and the Contractor shall forward this specification to all subcontractors at the bidding stage so that they can in turn prepare health and safety plans relating to their operations

2.3 This Specification will be reviewed and updated periodically as and when necessary to address and / or include:

- Changes in legislation.
- Client requirements.
- Leading practices; and
- Lessons learnt from incidents

3 Scope and Application

3.1 This specification is applicable to all contractors, suppliers and all activities and processes carried out for or on behalf of Transnet Rail Infrastructure Manager. The Specification defines the strategies to manage Health and Safety and is a compliance document drawn up in terms of the Occupational Health and Safety Act 85 of 1993, railway safety, act no. 30 of 2024 requirements as applicable.

3.2 This specification shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the TRIM Contract Manager/Technical Officer with full particulars of such subcontractors and shall ensure that they comply with the OHS Act and Regulations and Transnet's safety requirements and procedures.

3.3 Every effort has been made to ensure that this specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Contractor from his responsibilities and accountability in respect of the contract to which this specification document pertains. Any such

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inaccuracies, inconsistencies and/or inadequacies shall immediately be brought to the attention of the TRIM Contract Manager/Technical Officer or Client Agent.

4 General

4.1 The Contractor and Transnet Rail Infrastructure Manager are individual employers, each in its own right, with their respective duties and obligations set out in the Occupational Health and Safety Act, Act 85 of 1993 (herein referred as the OHS Act) and applicable Regulations.

4.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the OHS Act, his obligations as an employer in respect of all persons in his employ, other persons on the premises or the Site or place of work or on the work to be executed by him, and under his control. The Contractor shall, before commencement with the execution of the contract work, comply with the provisions set out in the OHS Act, and shall implement and maintain a SHE Plan approved by Transnet Rail Infrastructure Manager, on the Site and place of work for the duration of the contract.

4.3 The Contractor accepts his obligation to complying with the OHS Act and applicable Regulations notwithstanding the omission of some of the provisions of the OHS Act and the Regulations from this document.

4.4 Transnet Rail Infrastructure Manager accepts, in terms of the OHS Act, its obligations as an employer of its own employees working on or associated with the site or place of work, and the Contractor and TRIM Contract Manager/Technical Officer or his deputy shall at all times, co-operate in respect of the health and safety management of the site, and shall agree on the practical arrangements and procedures to be implemented and maintained during execution of the works

4.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

5. Section 37(2) Agreements

5.1 Transnet Rail Infrastructure Manager and the Contractor shall enter into an agreement in terms of section 37(2) of the Occupational Health and Safety Act to the arrangements and procedures between them to ensure compliance by the Contractor with the provisions of the OHS Act.

5.2 The agreement shall be completed and signed by the Contractor mandated representative as soon as possible and returned to the relevant TRIM Project Manager / TRIM Contract Manager for his/her signature on behalf of TRIM.

5.3 The Contractor shall enter into a Section 37(2) Agreement with their respective sub-contractors. Signed copy of such agreement shall be kept on the Contractor's SHE file.

6. Definitions

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6.1 In this Specification the definitions as listed in the Occupational Health and Safety Act 85 of 1993 and Construction Regulations, 2014, Electrical Installation Regulations, Electrical Machinery Regulations and Transnet Contractor Management Procedure shall apply, unless the context otherwise indicates: -

6.1.1 "**competent person"** means a person who—

a) has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training shall be regarded as the required qualifications and training; and

b) is familiar with the Act and with the applicable regulations made under the Act;

6.1.2 **"contractor"** means an employer (organisation) or a person who performs ANY work and has entered into a legal binding business agreement contract to supply a product or provide services to Transnet. This applies to the Suppliers, Vendors, Consultants, Service Providers or Contractors. NB: A contractor is an employer in his/her own right (includes Principal Contractor and subcontractor);

6.1.3 **"Communicable disease"** means infectious diseases, are the illnesses caused by microorganisms like bacteria, viruses, fungi, or parasites. Example COVID 19

6.1.4 "**electrical contractor"** means a person who undertakes to perform electrical installation work on behalf of any other person, but excludes an employee of such first – mentioned person

6.1.5 "**excavation work"** means the making of any man-made cavity, trench, pit, or depression formed by cutting, digging, or scooping

6.1.6 **"fall protection plan "**means a documented plan, which includes and provides for-

a) all risks relating to working from a fall risk position, considering the nature of work undertaken;

b) the procedures and methods to be applied in order to eliminate the risk of falling; and

c) a rescue plan and procedures

6.1.7 **"fall risk"** means any potential exposure to falling either from, of or into

6.1.8 **"health and safety (SHE) plan"** means a site, activity or contract specific documented plan in accordance with the client's health and safety specification;

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6.1.9 **"risk assessment"** means a programme to determine any risk associated with any hazard at a work site, in order to identify the steps needed to be taken to remove, reduce or control such hazard

6.1.10 **"Safety, Health and Environmental (SHE) File"** means a file or other record in permanent form, containing the information required to be kept on site in accordance with the OHS Act and applicable Regulations;

6.1.11 **"TRIM"** means Transnet Rail Infrastructure Manager, a division of Transnet SOC Ltd (Registration No. 1990/000900/30), a public company incorporated in accordance with the company laws of the Republic of South Africa

6.1.12 " **TRIM Contract Manager"** means a Transnet employee who is authorised to represent Transnet in terms of the contract and appointed to supervise and/or liaise with the contractor to ensure that the specifications of the contract are met (with special emphasis on technical specifications, inspection of quality, on health and safety, environment and quantity work). A Contract manager has the role of executing the plan to achieve the deliverables. This person receives all his authorisations from the contract initiator and the stakeholders. (It includes a Technical Officer, Maintenance Manager, Operations Manager, Security Depot Manager, Security Inspector, Maintenance Supervisor's etc)

7. Notification of Construction Work

7.1 The Contractor who intends to carry out any construction work other than work where a Construction Work Permit is required, shall at least 7 days before carrying out such work, notify the Provincial Director of the Department of Labour in writing if the construction work: -

(a) includes excavation work

(b) includes working at a height where there is a risk of a person falling.

(c) includes the demolition of a structure; or

(d) includes the use of explosives to perform construction work,

7.2 The notification to the Provincial Director shall be on a form similar to Annexure 2 of the Construction Regulations, 2014. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, TRIM Contract Manager/Technical Officer or employee.

8. Letter of Good standing

8.1 The Contractor shall submit proof of registration and Letter of Good Standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Diseases Act, 1993 (Act No. 130 of 1993) for his company and each of his sub-contractors'.

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8.2 No contractor may do any work for TRIM without a valid letter of good standing. The Contractor shall ensure that the Letter of Good Standing remains valid for the duration of the contract period.

8.3 The letter of good standing shall reflect the name of the Contractor and/or Sub-contractor, registration number and expiry date.

9. Management and Supervision

9.1 The Contractor and all subcontractors shall submit a SHE organogram outlining the site SHE management structure including the relevant appointments/competent persons or the intended appointments where such appointments have not been made.

9.2 The Contractor shall, in accordance with the OHS Act and applicable Regulations, make all the necessary appointments of competent persons in writing. Copies should also be retained on the SHE file.

9.4 Subcontractors shall also make written appointments, and the Contractor shall deliver copies thereof to the TRIM Contract Manager/Technical Officer.

9.5 Contractor Health and Safety Officers

The contractor shall appoint a full-time Construction Health and Safety Officer for the duration of the contract who is registered with the SACPCMP (The South African Council for Project Construction Management Professions).
The Construction Health and Safety Officer shall have sound knowledge of the Occupational Health and Safety Act and its regulations, SANS 3000-1:2016, National Environmental Management Act, and associate environmental requirements such as Waste and Water Acts and Hazard Identification and Risk Management processes.
The contractor shall ensure that each Construction Health and Safety Officer is adequately equipped to enable him to perform his duties effectively.

10. SHE Committee Meetings and SHE Representatives

10.1 When required by legislation, The Contractor and subcontractors shall appoint SHE Representative/s in writing after consultation with employees and ensure that they are trained in performing their duties.

10.2 SHE Representatives duties shall include inspections of the workplace, taking part in incident investigations, risk assessments, attending SHE Committee meetings etc. Records of monthly inspections of SHE Representatives shall be kept on the SHE file.

10.3 The number of SHE Representatives appointed shall be in accordance with the requirements of the Occupational health and Safety Act 85 of 1993.

10.4 When required by legislation, the Contractor shall ensure that a SHE Committee meeting is held monthly and minutes of such meeting shall be recorded and records kept on the SHE file. The Contractor representative and appointed SHE representatives shall attend the monthly SHE Committee meeting.

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10.5 The TRIM Contract Manager/Technical Officer or his deputy shall be allowed to attend meetings of the Contractor's health and safety committee as an observer.

10.6 Subcontractors appointed by the Contractor shall have their own internal monthly SHE Committee meeting.

11. SHE Audits and Contractor Monthly Reports

11.1 The TRIM Contract Manager/Technical Officer or his deputy shall ensure that the Contractor's SHE Plan is audited at intervals mutually agreed to between them, but at least once every month to ensure that the SHE Plan is implemented and maintained on site.

11.2 TRIM Safety Officers / Specialists shall at all reasonable times be allowed access to the work sites, the Contractor site offices and tool-sheds to inspect the Contractor's and its subcontractor's tools, equipment, registers and workplace.

11.3 Should any non-compliances or contraventions to the TRIM safety requirements, legal requirements, this specification or the Contractor's SHE Plan be identified, such non-compliances or contraventions shall be rectified by the contractor at its cost immediately or within a period specified by the TRIM Contract Manager/Technical Officer, his deputy, or TRIM Safety Officers / Specialists.

11.4 Should the Contractor refuse or fail to rectify such non-compliances or contraventions, TRIM may take remedial action at the Contractor's cost as it may deem necessary to ensure safety at the TRIM sites at all times.

11.5 TRIM reserves the right to conduct safety audits without prior warning.

11.6 The Contractor on all contracts of more than 1 month shall provide a monthly safety performance report as required by TRIM.

11.7 The Monthly safety performance report shall be compiled in terms of Annexure 1 or in any format that the Contractor has as long as it includes all items listed in Annexure 1.

12. Training, Competence and Awareness

12.1 Induction Training

12.1.1 The Contractor shall ensure that all his employees and subcontractors employees undergo a TRIM SHE Induction with regard to the general hazards prevalent on the site, rules and regulations, and other related aspects before commencing work. It is the responsibility of the contractor to inform TRIM whenever new employees are appointed after the initial induction was conducted.

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12.1.2 In addition to the TRIM SHE induction, it is the responsibility of the Contractor to develop and implement a site specific SHE Induction programme, a job specific induction programme and a general employee SHE awareness programme, to develop awareness amongst employees on the generic SHE issues associated with the scope of work and the specific environmental issues in question.

12.1.3 The Contractor shall ensure that all visitors and suppliers to the site undergo and comply with Contractors' site-specific safety induction requirement prior to being allowed access to site. All visitors and suppliers shall sign the attendance register.

12.1.4 All visitors and suppliers shall wear the necessary personal protective equipment whilst on site and shall remain in the care of the host who understand the scope of work and associated risks.

12.1.5 The Contractor shall maintain comprehensive attendance records of SHE induction training on the SHE file.

12.2 Competency / Training

12.2.1 The Contractor shall ensure that all his employees are adequately trained to perform the tasks allocated to them and that there is the requisite amount of supervision at all times to maintain safe work practices and standards.

12.2.2 The Contractor shall identify training requirements of employees whose work may have a significant impact on their health and safety or that might create a significant impact upon the environment and ensure that these employees will receive appropriate training. A Training matrix shall be used as a mechanism to manage and control the training of employees.

12.2.3 The Contractor shall identify all training needs and incorporate the site-specific training into the SHE plan.

12.2.4 Each Contractor shall be required to ensure that before an employee commences work on the contract that the supervisor in control with responsibility for the employee has informed the employee of his scope of authority and any hazards associated with the work performed. This will include man-job specifications, the discussion of any standard task procedures or hazardous operational procedures to be performed by the employee

12.2.5 The Contractor is to ensure that the supervisor has satisfied himself that the employee is conversant with all hazards associated with any work to be performed by conducting task observations.

12.2.6 The Contractor shall ensure that certificate/s of competence where applicable is/are provided in the SHE File.

12.3 Awareness Training

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12.3.1 Awareness training required shall be identified for all employees on the contract using the SHE Policy, the SHE Plan, the SHE programmes and procedures.

12.3.2 The Contractor shall have a daily safety talk. This talk shall include subcontractor employees.

12.3.3 The talk shall be brief and concise. Subject topics should be applicable to the job at hand, incidents, accidents and up-and-coming work will be discussed along with suggestions and comments. These meetings can be used as a training meeting with the central idea of educating employees.

13. Health and Safety Plan (SHE Plan)

13.1 Potential Contractor submitting tenders shall submit with their tender, a Health and Safety Plan setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the OHS Act and Regulations, this SHE specification and particularly in respect of: -

(a) The provision, as far as is reasonably practical, of a working environment that is safe and without risk to the health of his employees and subcontractors in terms of section 8 of the OHS Act.

(b) the execution of the contract work in such a manner as to ensure in terms of section 9 of the OHS Act that persons other than those in the Contractor's employment, who may be directly affected by the contract work are not thereby exposed to hazards to their health and safety.

(c) ensuring, as far as is reasonably practical, in terms of section 37 of the OHS Act that no employee or subcontractor of the Contractor does or omits to do any act which would be an offence for the Contractor to do or omit to do.

13.2 The Contractor's Health and Safety Plan shall be based on a risk assessment in respect of the hazards to health and safety of his employees and other persons under his control that are associated with or directly affected by the Contractor's activities in performing the contract work and shall establish precautionary measures as are reasonable and practical in protecting the safety and health of such employees and persons.

13.3 The SHE Plan shall include full particulars in respect of: -

(a) Safety Management Structure arrangements i.e. Appointments to be done and how.

(b) SHE Organisation arrangements i.e. SHE Committees, SHE Audits, Findings and Corrective Actions

(c) Risk Management i.e. Risk Assessment frequencies, methodology

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(d) Education and training i.e. safety induction, site / job specific training arrangements

(e) Emergency Planning

(f) Health and Safety Communication i.e. Toolbox talks, incident recall

(g) Safe working methods and procedures to be implemented i.e. safe work procedures, task observation

(h) Fall Protection Plan i.e. documented plan, training/competency, medical surveillance, rescue plan

(i) Personal protective Equipment and Clothing

(j) Contract Security i.e. site access control and security

(k) SHE Costs

(l) Occupational Health i.e Medical Surveillance, First Aid, Welfare Facilities, Substance Abuse testing, Noise, Vibration, Manual Handling etc

(m) Environmental management

(n) Incident Management i.e. reporting and investigation

(o) Operational Control

(p) Review plan of the SHE Plan and

(q) COVID-19 Requirements

13.4 The Contractor shall submit a final SHE Plan after awarding of the contract which shall be subject to the TRIM Contract Manager/Technical Officer's approval and he may, in consultation with the Contractor, order that additional and/or supplementary practical arrangements and procedures be implemented and maintained by the Contractor or that different working methods or safety equipment be used or safety clothes be issued which, in the TRIM Contract Manager/Technical Officer's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the OHS Act and Regulations.

13.5 The Contractor shall approve the SHE Plan of the subcontractor and further take reasonable steps to ensure that each subcontractor's SHE Plan is implemented and maintained on the site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between them, but at least once every month.

13.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's SHE Plan for the site or which poses a threat to the health and safety of persons.

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13.7 The Contractor shall ensure that a copy of the SHE Plan is available on site for inspection by an inspector, TRIM Contract Manager/Technical Officer, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.

14. Hazards Identification and Potential Hazardous Situations

14.1 The Contractor shall ensure a risk assessment is carried out by a competent person, appointed in writing, before commencement of any work and reviewed during the duration of the contract period. The Risk Assessments shall form part of the Health and Safety Plan to be applied on the site and shall include at least the following:

(a) The identification of the risks and hazards (including ergonomic risks) that persons may be exposed to.

(b) The analysis and evaluation of the hazards identified.

(c) A documented plan, including safe work procedures to mitigate, reduce or control the; risks identified; and

(d) A monitoring and review plan.

14.2 Risk assessments shall be conducted by a competent person and such person shall use a documented method to analyse and evaluate identified risk and hazards.

14.3 The Contractor shall consult with the health and safety committee or, if no health and safety committee exists, with a representative group of employees, on the development, monitoring and review of the risk assessment

14.4 The risk assessment shall be reviewed when there are changes that affect the design of the structure that may affect the health, safety and environment on site or after an incident.

14.5 The Contractor shall ensure that all employees are to be informed, instructed and trained regarding any risks, hazard and related SHE procedures by a competent person as outlined in the risk assessment prior to commencement of work and thereafter at predetermined intervals as outlined in the monitoring plan.

14.6 The Contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the risk assessment before any work commences, and thereafter at such intervals as may be determined in the risk assessment.

14.7 The risk assessment shall be available on site for review. Where a risk assessment is not readily available or not communicated to contractor employees, the construction activities shall be stopped until such time the contractor complies.

14.8 The Contractor and the TRIM Contract Manager/Technical Officer shall immediately notify one another of any hazardous or potentially hazardous situations which may arise

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during performance of the contract or any subcontractor and, in particular, of such hazards as may be caused by the design, execution and/or location and any other aspect pertaining to the contract work.

14.9 The Contractor shall be required to analyse his scope of work and define these critical activities. For each activity, a risk assessment shall be required which defines systems and safe work procedures that will be used in order to complete the activity safely.

14.10 Copies of all safe work procedures and proof that employees have been trained on those safe work procedures shall be kept on the SHE file.

14.11 Preliminary risk and hazard identification shall be conducted by the Contractor prior to work commencement on site. Should the Client's Agent, Project Manager, TRIM Contract Manager/Technical Officer or his duly nominated alternative identify hazardous activities performed by the Contractor on the site for which the Contractor has not submitted a risk assessment, the Contractor shall be required to do so before continuing with work.

15. Safety, Health and Environmental (SHE) File

15.1 The Contractor shall prepare a SHE file and submit to TRIM Contract Manager for approval prior to commencement of work on site. The file shall include all documentation required as per the OHS Act and applicable regulations.

15.2 The approval time of the SHE file is at least 5 working days

15.3 The Contractor shall ensure that a copy of both his SHE File as well as any subcontractor's SHE File is kept on site and made available to an inspector of the Department of Labour, the TRIM Contract Manager/Technical Officer, or subcontractor upon request.

15.4 The Contractor shall hand over a consolidated SHE file to the TRIM Contract Manager/Technical Officer upon completion of the Construction Work and shall in addition to documentation mentioned in the OHS Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

16. Occupational Health

16.1 Medical Surveillance Programme

16.1.1 The Contractor shall ensure that all his and subcontractor employees have a valid medical certificate of fitness issued by an Occupational Health Practitioner.

16.1.2 Medical certificate of fitness shall be available and be kept in the SHE files.

16.2 Substance Abuse

16.2.1 All Contractors shall comply with the Transnet Substance Abuse Policy and Regulation 2A of the General Safety Regulations of the OHS Act.

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16.2.2 No Contractor may possess, sell, offer to other person, use, store, manufacture, transport, distribute, or transfer drugs or alcohol during work hours, on or off TRIM premises.

16.2.3 TRIM will not tolerate substance abuse or use which put at risk the health and safety of its employees or threatens its services to our stakeholders. It is on this basis that a contractor employee will be considered unfit for work if:

(a) He/she is subjected to alcohol screening and/or alcohol testing and is found to have alcohol in his/her breathe and/or blood.

(b) Refuses to undergo substance screening and/or testing.

(c) He /she produces a positive confirmatory test for any other substances, measured by sample analysis at a registered pathological laboratory and authorised by a medical practitioner; and/or

(d) Through observation by security personnel or TRIM Contract Manager, it is evident that the contractor's physical, emotional, mental or behavioural state reflects that they are intoxicated or under the influence.

16.2.4 Any transgression of this policy will constitute a breach of the relevant contract and may result in the termination of services/contract.

16.2.5 Any contractor employee using medication that has a narcotic effect shall declare before work to his / her supervisor.

16.3 Occupational Hygiene

16.3.1 The Contractor shall conduct Health Risk Assessments of all the Occupational Hygiene / Environmental stressors (e.g. noise, dust, illumination, HCS, heat & cold stressors, ergonomics, etc.) present in the area where they operate to determine if there is any possible worker exposure. Records of all these assessments should be documented and kept up to date.

16.3.2 The Contractor shall monitor the extent to which their employees are exposed to the occupational hygiene stressors. These assessments shall be conducted by an Approved Inspection Authority as listed on the Department of Labour database. The findings from these assessments should be kept on the SHE files, communicated to all affected parties and be reported to relevant authorities.

16.4 First Aid requirements

16.4.1 All Contractors shall ensure that their employees receive prompt first aid treatment in case of injury or emergency. The Contractor shall have the necessary equipment and/or facility on site for treatment of injured persons.

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16.4.2 Contractor shall ensure that the first aid box / boxes are available and accessible. More first aid boxes shall be provided if the risks, distance between work teams, or the working environment requires it.

16.4.3 Taking into account the type of injuries that are likely to occur on site, the nature of activities performed and the number of employees on site, the Contractor shall ensure that the first aid box contain suitable first aid equipment which includes at least the minimum contents as listed on Annexure 1 of General Safety Regulation (GSR).

16.4.4 The Contractor shall ensure that trained / certificated first-aid personnel are appointed and be available on site at all times. The ratio of first aiders to employees shall be 1:50.

16.5 Asbestos Control

16.5.1 The Contractor shall inform the TRIM Project Manager or TRIM Contract Manager if during construction work asbestos or suspected asbestos containing material is found. Only Asbestos Approved Contractor can work on asbestos containing material.

16.6 Welfare Facilities

16.6.1 The Contractor shall ensure that suitable, clean and hygienic welfare facilities are provided to its employees and subcontractors. Where such welfare facilities are provided to them by TRIM for the use of their employees and subcontractors, the Contractor shall ensure that they are kept in a clean, hygienic, safe, whole and leak-free condition, and in a good state of repair.

16.7 Vibration

16.7.1 Contractors shall put measures to reduce the risks associated with hand–arm vibrations, avoid, whenever possible, the need for vibration equipment.

16.7.2 Contractor shall develop a good maintenance regime for tools and machinery. This may involve ensuring that tools are regularly sharpened, worn components are replaced or engines are regularly tuned and adjusted.

16.7.3 The Contractor shall introduce a work pattern that reduces the time exposure to vibrations.

16.7.4 The Contractor shall issue employees with gloves and warm clothing. There is a debate as to whether anti-vibration gloves are really effective, but it is agreed that warm clothing helps with blood circulation which reduces the risk of vibration white finger. Care shall be taken so that the tool does not cool the hand of the operator.

16.8 Manual Handling

16.8.1 Contractor shall reduce risk of injury due to manual handling by using mechanical assistance involving the use of mechanical aids to assist the manual handling operation. Mechanical aids such as hand-powered hydraulic hoists, specially adapted trolleys, hoist for lifting patients and roller conveyors can be used.

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16.8.2 Contractor shall ensure all employees involved in manual handling are trained in good lifting techniques.

16.9 Weather precautions

16.9.1 In the event of adverse weather (high winds, flooding, storm surge, lightning etc) or other conditions, the Contractor shall institute precautionary measures to protect employees on site.

16.9.2 The Contractor shall take steps to prevent heat stroke, dehydration and exhaustion of employees as a result of exposure to excessive heat on site. Such steps may include employees taking regular breaks, consuming enough water, provision of sun brims for their hard hats and sunscreen to protect them against sun burn.

16.9.3 The Contractor shall take steps to prevent hypothermia or dangerous overcooling of the body as a result of exposure to cold temperatures.

17 Incidents/Occurrences

17.1 All incidents referred to in Regulation 9 of General Administration Regulations of the OHS Act involving the contractor and his subcontractor on TRIM premises, shall be reported to the TRIM Contract Manager and Department of Labour as prescribed by the OHS Act.

17.2 TRIM shall be forwarded with a copy of a report of any investigation, formal inquiry conducted in terms of Section 31 and 32 of the Act into any incident involving the contractor, his subcontractor, any person or machinery under his control on TRIM premises.

17.3 TRIM Contract Manager shall be informed of the above incidents/occurrences before the end of shift when the incident/occurrence occurred.

17.4 The Contractor shall make available its employees to attend as witnesses when required so by TRIM during an investigation into any incident where TRIM believes the said contractor employees were witnesses or may assist in the investigation.

17.5 The contractor shall make available to TRIM any documents required to assist in their investigation.

18. SHE Cost

18.1 The Contractor shall ensure that it has made adequate provision for the cost of health and safety measures in the tender offer.

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18.2 The Contractor shall ensure that its subcontractors have made adequate provision for the cost of health and safety measures in the tender offer.

19. Personal Protective Equipment (PPE)

19.1 The contractor shall ensure that all employees are provided with appropriate prescribed Personal Protective Equipment (PPE) free of charge (according to General Safety Regulations (2), suitable for the type of activities that the employees will perform.

19.2 Such PPE shall be approved by credible institution such as SABS, EN, or AN.

19.3 The contractor shall manage the issuing of PPE and ensure that PPE is used at all times. Employees shall be trained in the proper use of PPE.

20. Emergency Evacuation Plan and Procedure

20.1 The Contractor shall establish and implement an emergency evacuation plan to ensure that in the event of fire, explosion structural collapse etc. all staff is able to evacuate the area to a demarcated area for the purpose.

20.2 The area so selected shall be demarcated and the relevant "Assembly Point" sign displayed where applicable or use TRIM nearest assembly point.

20.3 An Emergency Evacuation Procedure shall be drawn up; all staff members and contractors shall be given awareness training and participate in regular evacuation drills.

20.4 The Contractor and its employees shall collaborate and adhere to TRIM evacuation drills and requirements.

21. Access Control and Security

21.1 The Contractor shall, before commencing any work, obtain from the TRIM Contract Manager/Technical Officer a Site Access Certificate signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.

21.2 No Site Access Certificate will be granted to the Contractor who fails to comply with TRIM minimum SHE requirements, with the SHE File not approved and without the SHE induction been concluded.

21.3 The contractor shall assess the security risks and implement appropriate measures. All contractors are to strictly adhere to all security requirements on the premises.

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21.4 The Contractor in collaboration with the TRIM representative will ensure that proper access control is in place and functional at all times onto and out of the site. A form of access control will be issued to contractor employees who have been inducted and submitted copies of ID documents or work permits (where required).

21.5 Access Permits should be carried by a contract employee at all time when on site. Access Permits shall be produced at the point of entry / gate.

21.6 Contractors shall ascertain from TRIM Contract Manager/Technical Officer the correct route along with their employees may proceed when coming on or going off shift and direct their employees accordingly.

22. Management of Subcontractors

22.1 The Contractor is directly responsible for the actions of his contractors/sub-contractors.

22.2 The Contractor will also be responsible for initiating any remedial action (recovery plan) that may be necessary to ensure that the contractor complies with all requirements.

22.3 The Contractor shall provide any contractor who is making a bid or appointed to perform construction work, with the relevant sections of the documented SHE specification, who would in turn provide a SHE plan for approval.

22.4 The Contractor shall carry out inspection/audits on the contractor/subcontractor to ensure that their SHE plan is being implemented and maintained and submit audit report to TRIM Representative.

22.5 The Contractor shall stop any contractor/subcontractor from executing construction work which poses a threat to the safety and health of persons or the environment.

22.6 The Contractor shall ensure that the sub-contractors appointed have the necessary competencies and resources to perform the work safely.

22.7 The Contractor will be required to submit 37(2) mandatory agreement between the Contractor and subcontractor to the TRIM Contract Manager

23. Environmental Management

23.1 The Contractor shall identify, document and comply with all pertinent Environmental laws and associated Regulations, approvals, licenses and permits which are applicable to the Services and activities undertaken.

23.2 Before commencement with any of the services to be rendered to TRIM, the Contractor shall make available all personnel who will be working on the specified contract to be given environmental induction training. All Contractor employees arriving on the site shall attend such induction.

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23.3 The Contractor shall adhere to all instructions issued by Contract Manager or his /her delegated person in promotion of environmental management and legal compliance.

23.4 The Contractor shall determine the correct positioning of topsoil stockpiling to avoid massive disturbance and prepare the topsoil for reuse during landscaping.

23.5 Concrete shall not be mixed directly on the ground or any other permeable surface. Should concrete batching activities occur, these should be located in the designated area on site with low environmental sensitivity levels.

23.6 All excess concrete shall be removed from site on completion of plastering or concrete pouring and disposed of in an environmentally acceptable manner.

23.7 The Contractor shall ensure that his or her employees are aware of the procedures to be followed when dealing with spills and leaks, which shall include notifying the relevant authorities and TRIM as required in terms of National Environmental Management Act (NEMA), 1998 and National Water Act (NWA), 1998. The Contractor shall ensure that all necessary material and equipment required for use during clean – up/rehabilitation of spills and leaks are available on site at all times. Treatment, remediation and/or rehabilitation of contaminated areas shall be undertaken to the reasonable satisfaction of the TRIM Environmental Control Officer or relevant Environmental Specialist.

23.8 Contractor shall be solely responsible for the control of dust generated from his or her activities. Excavation, handling and transport of erodable material shall be avoided under aggressive wind conditions or when a visible dust plume is present. If dust damping measures are deemed inadequate, working shall cease until the wind speed drops to an acceptable level.

23.9 Construction activities generating output levels of 85 db (A) or more shall be confined to the hours 08h00 to 17h00 Mondays to Fridays (close to residential areas).

23.10 No on-site burying or dumping of waste material shall occur. Waste shall be collected by a licensed waste transporting contractor and disposed of at a licensed disposal site. Disposal certificate shall be made available to TRIM on request.

23.11 Waste bins shall be provided in sufficient number and capacity to store solid waste produced on a daily basis. These bins shall be kept closed and emptied regularly.

23.12 A designated re-fuelling area (s) shall be provided. The re-fuelling area shall be protected from hydrocarbon spillage to the reasonable satisfaction of the TRIM Environmental Control Officer or Relevant Environmental Specialist. As a minimum requirement, re-fuelling and workshop areas shall have a bunded floor surface and storm water collection mechanism. Refuelling shall always be accompanied by the use of drip trays.

23.13 The Contractor shall notify the Contract Manager immediately of any pollution incident. An incident record system shall be maintained on site for inspection by TRIM and relevant authorities.

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23.14 All vehicles and equipment's shall be kept in good working condition. All leaking equipment's shall be repaired immediately or removed from site. All vehicles and equipment shall be maintained and not emit excessive noise.

23.15 In case of major hydrocarbon spill or leakage as a result of equipment failure, Contract Manager shall be made aware of such event and the affected area shall be fenced off and be cleaned immediately to the reasonable satisfaction of the TRIM Environmental Control Officer to prevent contamination of soil and both surface and groundwater.

23.16 The Contractor shall ensure that no spillage occurs when toilets are being cleaned or emptied and that the contents are removed from site by a licensed service provider.

23.17 The use of borrow pits for the construction of access roads shall comply with the provisions of Minerals and Petroleum Resources Development Act of 2004 as amended and should not be located inside the border of any protected area (e.g. Nature Reserve).

23.18 All disturbed areas shall be rehabilitated to the reasonable satisfaction of TRIM Environmental Control Officer or Relevant Environmental Specialist.

23.19 Transportation, handling and storage of all substances classified as hazardous shall comply with the provisions of the Hazardous Substances Act, 15 of 1973, relevant Regulations and SANS Codes.

23.20 Archaeological remains, artificial features and structures older than 60 years are protected by the Natural Heritage Resources Act, 25 of 1999. Should any archaeological artefact be exposed during construction or any contract work, such work shall be stopped immediately. The TRIM Environmental Control Officer shall be called in for inspection and to recommend the way-forward. Under no circumstances may any artefacts be destroyed or removed from site.

23.21 The extraction of water for construction purposes shall at all times comply with licensing requirements of Department of Water Affairs, where applicable. Extraction of water from a stream or a river requires approval.

23.22 Blasting work that may be required on site shall be carried out entirely within the provisions of the Explosives Act, 26 of 1956 and other relevant engineering and safety standards.

23.23 Office and camp sites shall be established, as far as is practicable, outside the flood plain, above the 1:50 flood level mark within the boundaries of the construction area.

23.24 No camp or office site shall be located closer than 100 metres from a stream, river, spring, dam or pan.

23.25 The area chosen for these purposes shall be the minimum reasonably required and which will involve the least disturbance to vegetation.

23.26 Camps and site offices shall be fenced (where necessary) in consultation with the landowner.

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23.27 The Project Manager or TRIM Contract Manager may, at his or her discretion stop any work, activity or process not in accordance with Environmental laws and associated Regulations, approvals, licenses and permits.

23.28 The contractor shall preserve wildlife in terms of the NEMA.

24. Operational Safety

24.1 National Railway Safety Regulator Act / Railway Safety

24.1.2 The Contractor shall ensure that its equipment, machinery and employees when on TRIM premises complies fully with all applicable railway safety requirements and/or regulations of the railway safety act, 2024 (act no. 30 of 2024) and the relevant SANS Codes of Practice.

24.1.2 The Contractor when engaging subcontractor shall review the capability of the proposed contractor to comply with specified railway safety requirements and/or regulations.

24.1.3 The Contractor and/or his subcontractors shall grant TRIM access, during the term of the contract, to review any railway safety related activities, including the coordination of such activities across all parts of the organisation.

24.1.4 The Contractor shall ensure that where applicable, such work is performed by person who has the necessary competencies as required in terms of any applicable railway safety standard or code of practice

24.1.5 The Contractor shall ensure that all his employees are protected from the risk of being hit by moving trains.

24.1.6 The Contractor shall ensure that on track machines are only operated with the Transnet Track inspector/Track master in charge of on-track machine present on the machine. Transnet Track inspector/Track master in charge of on-track machine shall have passed the appropriate road knowledge, theoretical and practical examinations and shall be licenced competent.

24.2 Special Permits

24.2.1 Where special work permits are required before work may be carried out such as for e.g. hot work (welding, cutting etc.), isolation, and occupations, the Contractor shall apply to the TRIM Contract Manager/Technical Officer or the relevant authority for such permits to be issued. The Contractor shall strictly comply with the conditions and requirements pertaining to the issue of such work permits.

24.3 Vehicle Safety

With respect to vehicles, vehicles and mobile plants the Contractor shall ensure that:

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24.3.1 They are of an acceptable design and maintained in a good working order and are used in accordance with their design and the intention for which they were designed

24.3.2 Are operated by a person who-has received appropriate training, is certified competent and in possession of proof of competency and is authorised in writing to operate such vehicle and mobile plant;

24.3.3 Are operated by a person who has a medical certificate of fitness to operate those vehicle and mobile plant, issued by an occupational health practitioner;

24.3.4 Vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried. No employees will be allowed to be transported at the back of LDV's / bakkies unless it is provided with a seat and safety belt and further that the risk assessment has indicated it to be a low risk.

24.3.5 Vehicles are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn.

24.3.6 Vehicle shall be equipped with an acoustic warning device which can be activated by the operator and an automatic acoustic reversing alarm

24.3.7 Vehicles shall be inspected by the authorised operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

24.3.8 No person rides or is required or permitted to ride on a construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose.

24.3.9 All vehicles or mobile plant when not in use, have buckets, booms or similar appendages, fully lowered or blocked, controls in a neutral position, motors stopped, wheels chocked, brakes set and ignition secured.

24.3.10 Whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation

24.3.11 Tools, material and equipment are secured and separated by means of a physical barrier in order to prevent movement when transported in the same compartment with employees.

24.3.12 Where applicable, also in collaboration with the TRIM representative and other appropriate personnel develop a traffic management plan for the site to ensure the safe movement of all construction related mobile plant where applicable

24.3.13 This plan is to be reviewed as and when required to ensure its applicability where applicable.

24.3.14 Those working or operating on public roads comply with the requirements of the National Road Traffic Act, 1996.

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24.4 Housekeeping and general safeguarding on sites

24.4.1 Contractor shall ensure that suitable housekeeping is continuously implemented on each work site

24.4.2 The Contractor shall ensure proper storage of materials and equipment and the removal of scrap, waste and debris at appropriate intervals.

24.4.3 The Contractor shall ensure that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways

24.4.4 The Contractor shall ensure that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals.

24.5 Information, instruction and training

24.5.1 The contractor who undertakes work which is liable to expose an employee to an HCA shall, before any employee is exposed or may be exposed, after consultation with the health and safety committee established for that section of the workplace, provide that employee with suitable and sufficient information, instruction and training, as well as thereafter inform, instruct and train that employee at intervals as may be recommended by that health and safety committee.

24.5.2 The information, instruction and training shall include in regard to the Hazardous Chemical Agent's

(i) the chemical substance regulations that are in place that govern all aspects of HCA use at the workplace.
(ii) the legislated OELs that are in place; and
(iii) the duties of persons who are likely to be exposed to an HCA,

24.5.3 Details of the HCAs to which the employee is likely to be exposed at the workplace, including

(i) the names of the HCAs and where they may be found in the workplace.
(ii) information on the potential harmfulness of the HCAs at the workplace; and
(iii) significant findings of the HCA exposure assessment,

24.5.4 The information that each part of an SDS provides.
The information that each part of the label on containers provides and why the information is being provided.

24.5.5 The work practices and procedures that shall be followed for the use, handling, storage, transportation, spillage and disposal of an HCA, in emergency situations, as well as for good housekeeping and personal hygiene.

24.5.6 The necessity of personal air sampling, biological monitoring and medical surveillance the need for engineering controls and how to use and maintain them;

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(i) the need for personal protective equipment, including respiratory protective equipment, and its use and maintenance.

24.5.7 The precautions that shall be taken by an employee to protect themselves against health risks associated with exposure, including wearing and using protective clothing and respiratory protective equipment; and

24.5.8 The necessity, correct use, maintenance and potential of safety equipment, facilities and engineering control measures provided.

24.5.9 The contractor shall give written instructions of the procedures to be followed in the event of spillages, leakages or any similar emergency situations to the drivers of vehicles transporting an HCA.

24.5.10 In terms of section 37(2) of the Act, the contractor and mandatary shall agree in writing to the arrangements and procedures between them to ensure compliance by the mandatary with information, instruction and training requirements.

24.6 Stacking and Storage

24.6.1 The Contractor shall ensure that a competent person is appointed in writing with the duty of supervising all stacking and storage.

24.6.2 Adequate storage areas are provided, demarcated as storage areas and are kept neat and under control.

24.7 Fire Precautions and Fire Safety

24.7.1 The Contractor shall ensure that all appropriate measures are taken to avoid the risk of fire. The Contractor shall comply to the fire precautions as stipulated in the Environmental Regulations for Workplaces, 1987 and regulation 29 of the Construction Regulations, 2014

24.7.2 Sufficient and suitable storage is provided for flammable liquids, solids and gases.

24.7.3 Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials

24.7.4 The Contractor shall ensure that the work areas are clear, at all times, of any material, which could fuel a fire and that ccombustible materials do not accumulate, oily rags, waste and other substances liable to ignite are without delay removed to a safe place.

24.7.5 A thorough inspection is made of the work site at the end of any working period to ensure that no material is left at the work site or any situation left in such a manner that a fire or accident could result (all machines to be turned off at main switches, and cylinders to be closed and hoses deflated).

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24.7.6 Suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned and that such equipment is maintained in a good working order.

24.7.7 The fire equipment is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof

24.7.8 Sufficient number of employees are trained in the use of fire extinguishing equipment and familiarise themselves with locations of fire fighting equipment in the work site.

24.7.9 There is an effective evacuation plan providing for all persons to be evacuated speedily without panic, accounted for and a siren is installed and sounded in the event of a fire.

24.7.10 Where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire and the means of escape is kept clear at all times.

24.7.11 The Contractor shall ensure that fire fighting equipment are not to be used for any purpose other than their intended use.

24.8 Demarcation of the site

24.8.1 The Contractor shall ensure that its activities are conducted within a limited area to facilitate control and to minimize the impact on the existing natural environment and other TRIM activities.

24.8.2 The Contractor shall demarcate the boundaries of the site in order to restrict activities to the site.

24.8.3 The method of demarcation and the location of the demarcated area shall be determined by the Contractor and approved by the TRIM Contract Manager prior to any work being undertaken. The Contractor shall ensure that all his plant, labour and materials remain within the boundaries of the site.

24.8.4 Failure to do so may result in the Contractor being required to fence off the boundaries of the site at his own expense to the satisfaction of the TRIM. The contractor is responsible for the safeguarding of his/her own equipment and material while on site.

24.9 Fall Protection Plan

24.9.1 In the event of the risk and hazard identification, as required in terms of clause 14 of this Specification, revealing risks relating to working from a fall risk position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan.

24.9.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of the contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.

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24.9.3 The fall protection plan shall include: -

(a) a risk assessment of all work carried out from a fall risk position.

(b) the procedures and methods to address all the identified risks per location.

(c) the evaluation of the employees physical and psychological fitness necessary to work at fall risk positions.

(d) the training of employees working from fall risk positions.

(e) rescue plan; and

(f) the procedure addressing the inspection, testing and maintenance of all fall protection equipment

24.10 SHE Signage (Symbolic Safety Signs) on plant and in buildings

24.10.1 The Contractor's employees shall comply with all SHE signage posted at various locations of TRIM sites.

24.10.2 The Contractor shall after occupation of the construction site ensure that appropriate, SHE signs (Symbolic Safety Signs) are displayed on site

24.11 General Machinery, Tools and Equipment

24.11.1 The Contractor shall ensure that all machinery, tools and equipment are identified, numbered or tagged, listed on an inventory list.

24.11.2 The Contractor shall ensure that all machinery, tools and equipment are safe to be used and is maintained in a good condition.

24.11.3 The Contractor shall ensure that all machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded in such a manner that persons cannot gain inadvertent access to the moving parts.

24.11.4 All machinery, tools and equipment to be regularly inspected at least monthly or as required by legislation and risk assessments. Records of such inspections shall be kept on the SHE files.

24.11.5 Where applicable machinery, tools and equipment shall have the necessary approved test or calibration documentation.

24.11.6 The Contractor shall ensure that all machinery, tools and equipment are operated by persons who have been trained to operate such machinery, tools or equipment.

24.12 Portable Electrical Tools and Explosive Power Tools

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24.12.1The Contractor shall ensure that use and storage of all explosive power tools and portable electrical tools comply with all applicable legislation.

24.12.2The Contractor shall ensure that only trained employees are authorised to use portable electrical tools and explosive power tools

24.12.3 The Contractor shall ensure that all portable electrical tools and explosive power tools are kept in a safe working condition.

24.12.4 All portable electrical tools and explosive power tools are inspected monthly by a competent person and daily before use by the operator of such tool. Records of such inspections shall be kept in the safety file.

24.12.5 Users / Operators of electrical power tools and explosive power tools should be issued with suitable protective equipment

24.13 Lifting Machine, Lifting Tackle and Suspended Loads

24.13.1The Contractor shall ensure that lifting machine and tackle comply with Driven Machinery Regulation 18 and all other applicable legislative requirements and standards.

24.13.2The Contractor shall ensure that lifting machine operators shall be competent to operate a lifting machine. They shall be in possession of a valid permit. The training should have been done according to the Code of Practice by a provider registered by the Department of Labour.

24.13.3 A lock out system should be implemented to ensure that only an operator that is competent can draw lifting machines and forklifts.

24.13.4 The Contractor shall ensure that before using any lifting machines or tackle the operator inspect it. Records of such inspections and examinations shall be kept on the safety file.

24.13.5 All lifting machines shall be examined and subjected to a performance test by an accredited person/company at intervals not exceeding 12 months.

24.13.6 All lifting tackle should be recorded on a register and should be examined by an accredited person/company at intervals not exceeding 3 months.

24.13.7 All hooks shall be fitted with a safety latch/catch.

24.13.8 All lifting tackle should be conspicuously and clearly marked with identification particulars and the maximum mass load which it is designed for.

24.13.9 No person shall be moved or supported by means of a lifting machine unless such a machine is fitted with a cradle approved by an inspector.

24.13.10 Rigging of loads to be done in accordance with acceptable safe work practices

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24.13.11 Contractors and their employees shall keep out from under suspended loads, including excavators, and between a load and a solid object where they might be crushed if the load should swing or fall. They shall not pass or work under the boom or any crane or excavator.

24.13.12 Contractors and their employees shall ensure that crane loads are not carried over the heads of any workmen.

24.13.13 The Contractor shall ensure proper supervision in terms of guiding the load including the use of guide ropes to prevent loads from swinging and a trained person to direct lifting operations and checking the lifting tackle and attachments daily.

24.14 Hand Tools and Pneumatic Tools

24.14.1 All hand tools (hammers, chisels, spanners, etc) shall be recorded on a register and inspected by a competent person on a monthly basis as well as by users prior to use.

24.14.2 All pneumatic tools should be numbered, recorded and inspected at least monthly as well as by users prior to use. And the revolutions per minutes measured in accordance with the manufacturer specifications

24.14.3 Tools with sharp points in toolboxes shall be protected with a cover.

24.14.4 All files and similar tools shall be fitted with handles.

24.14.5 The Contractor shall have a policy on private and makeshift tools on site.

24.14.6 No pneumatic tool shall be operated by using a compressed gas cylinder. Pneumatic equipment shall only draw supply from mobile air compressors or from compressed air lines installed within the premises.

24.15 General Rules of Conduct

24.15.1 All persons are required to conform to the following rules of conduct while on the site.

24.15.2 The following acts are prohibited:

- Engaging in practical jokes, horseplay, scuffling, wrestling, fighting, or gambling.
- Assault, intimidation, or abuse of any person.
- Insubordination towards any supervisor or manager.
- Refusing to carry out a reasonable and lawful instruction concerning health and safety.
- Entry into any restricted area (including barricaded areas), unless authorised to do so by the responsible person.
- Unauthorised use / operation of any equipment or machinery.
- Negligently, carelessly or wilfully causing damage to any property.
- Destroying or tampering with safety devices, signs, or signals.
- The use of water from fire hydrants or hose reels for any purpose other than extinguishing a fire.
- The wilful and unnecessary discharging of fire extinguishers.

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- Refusing to give evidence or deliberately making false statements during incident investigations.
- Bringing alcohol, drugs, or any other intoxicating substance onto site.
- Bringing a firearm, ammunition, or any other offensive weapon onto site.
- Bringing animals onto site.
- Running, except in an emergency.
- The use of an iPod (or similar) whilst working on site.
- Sleeping on the job.
- Building fires on site, unless in a suitably constructed barbequing facility; and
- Pouring / pumping / flushing any substance (chemical / hydrocarbon / wastewater) into a storm water drain, onto bare soil, or into any area where the substance is not effectively contained.
- Walking, sitting or sleeping on the rail
- Touching of any loose lying electric wires
- Coming into close proximity to live OHTE (maintain clearance of 3 metres)

24.15.3 Any of the above actions may result in the temporary or permanent removal of the offending person(s) from site, as well as possible prosecution. The decision of the Transnet Contract Manager shall be final and binding in respect of any dispute that may arise from the interpretation of these requirements.

24.16 Work in Confined Space

24.16.1 The Contractor shall ensure that a confined space is only entered by an employee or any other person only after the air therein has been tested and evaluated by a person who is competent to pronounce on the safety thereof, and who has certified in writing that the confined space is safe and will remain safe while any person is in the confined space, taking into account the nature and duration of the work to be performed therein.

24.16.2 The Contractor shall take steps to ensure that any confined space in which there exist or is likely to exist a hazardous gas, vapour, dust or fumes, or which has or likely to have, an oxygen content of less than 20 percent by volume, is entered by an employee or other person only when:

(a) the confined space is purged and ventilated to provide a safe atmosphere therein and measures necessary to maintain a safe atmosphere therein have been taken;
(b) the confined space is isolated from all pipes, ducts and other communicating openings by means of effective blanking other than the shutting or locking of a value or a cock, or, if this is not practicable, only when all valves and cocks which are a potential source of danger have been locked and securely fastened by means of chains and padlocks.

24.16.3 The Contractor shall ensure that the provisions of General Safety Regulation 5 are complied with regard to work on confined space

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24.16.4 The Contractor shall take into consideration that a tunnel is defined as a confined space in terms of the General Safety Regulations and shall ensure compliance to the above when working in tunnels.

24.17 Electrical Equipment

The Contractor shall ensure that:

24.17.1 Implementation and compliance with Electrical Installation Regulations, Electrical Machinery Regulations and regulation 24 of the Construction Regulations and OH&S Act.

24.17.2 All electrical installations, machinery and electrical work is performed in compliance with TRIM Electrical Safety Instructions.

24.17.3 Connections are not made to any power supply without the prior written approval of the TRIM Contract Manager.

24.17.4 All electrical machines and appliances provided by the Contractor for his own use on the Site are in a serviceable condition

24.17.5 Power tools used on the Site are protected by residual current devices approved by TRIM Contract Manager and are double insulated.

24.17.6 All extension cords, portable tools and electrical plant supplied at a voltage above 32 volts are inspected, tested and tagged by a Licensed Electrician at regular monthly intervals. Details of inspections and tests are kept in Logbooks available for inspection by the TRIM Contract Manager or any other authorised Officer of TRIM.

24.17.7 All electrical installations are inspected by the TRIM Contract Manager (or his nominee) to ensure that the installation complies with the Statutory Regulations applicable to the site and TRIM Electrical Safety Instructions. Any installations deemed unsatisfactory by the TRIM Contract Manager should be removed by the Contractor at his expense.

24.17.8 Portable lights have adequate stability and are fitted with a mechanical guard to protect the lamp. Temporary festoon lighting is of the 'double insulated' type and is supported at least 2.5m above the floor, if possible. Hand lamps are of the 'all insulated' type.

24.17.9 All temporary light fittings are supplied from more than one final sub-circuit, with the supply from a residual current device, extra low voltage source or an isolating transformer.

24.17.10 The Contractor shall obtain approval from the TRIM Contract Manager before any of his employees or Sub-contractors commence work within three (3) metres of conductor rails or high tension wires, or where there is a possibility of equipment coming close to and/or touching a power source and shall provide suitable protective insulating barriers. For the erection of scaffolding, the distance is five (5) metres.

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24.17.11 Only authorised persons may enter Electrical Contactor Houses, Motor Rooms, Switch Rooms, Control Rooms or Cable Ducts. Should the Contractor require entering such places to carry out work, he shall first obtain permission from the TRIM Contract Manager and obtain a valid Permit to Work.

24.17.12 The Contractor's employees required to enter such electrical spaces "authorised persons", with the names entered in the TRIM Authorised Persons Register, after receiving approval from the TRIM Electrical Officer, or they are accompanied by an authorised person who shall supervise the placement of Danger Tags and Out-of-Service Tags, as well as Electrical Isolation Permit.

24.17.13 Electrical equipment supply cabling distribution boards, fixed lighting and portable appliances, extension leads, welding machines, compressors, pumps and hand portable tools are inspected on a monthly basis and also by the user daily before use.

24.17.14 Such monthly inspection(s) are to be performed by an appropriately qualified Electrician.

24.17.15 Contractors working on, over, under, or adjacent to railway lines and near high voltage equipment shall comply with the TRIM E7/1 Specification for Works On, Over, Under or Adjacent to Railway Lines and Near High Voltage Equipment.

24.17.16 No person may do electrical installation work as an electrical contractor unless that person has been registered as an electrical contractor in terms of the Electrical Installation Regulations.

24.17.17 No person shall authorize, design, install or permit or require the installation of an electrical installation, other than in accordance with a health and safety standard provided that the components within an electrical installation shall comply with the standards and proof of compliance shall be identifiable on the components or certification shall be available from the supplier or manufacturer of the components.

24.17.18 Contractor shall provide further that items of an electrical installation not covered by such incorporated safety standard, and the conductors between the point of supply and the point of control, shall be installed in accordance with the by-laws or regulations of the supplier concerned.

24.17.19 A registered person shall exercise general control over all electrical installation work being carried out, and no person shall allow such work without such control: Provided that where the voltage exceeds 1kV, the installation shall be designed and supervised by a person deemed competent

24.17.20 No supplier shall restrict the application of a health and safety standard when an electrical installation is installed, except where the distribution system of the supplier may be adversely affected by the application thereof.

25. Confidentiality

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25.1 The Contractor shall, at all times, consider all data or information given to him or that is required in connection with the work of the Company, as confidential and not makes unauthorized use of it.

25.2 He/she shall ensure that such data or information is not given to any non-employee of the contractor without written consent of the TRIM Contract Manager.

25.3 The Contractor shall be aware of the confidentiality of the mentioned information and is compelled to treat it accordingly.

25.4 The contractor shall provide adequate physical protection for any confidential documents, etc, which were obtained from Transnet in connection with the contract work as well as any copies made thereof. If any documents or sketches are lost, the TRIM Contract Manager shall be notified immediately.

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ANNEXURE 1

CONTRACTOR MONTHLY SHE REPORT

For Month/Year		Name of Contractor	
Name of Contract			
Contract Number	Date of Commencement	Date of Completion	

Number of employees	Man-hours worked this Month	Cumulative (Contract duration man-hours)	Man-hours Since last Lost Time Incident (LTI)	DIFR

1. Details of SHE Incidents

Incident	This Month	Cumulative(Contract duration)	Short description of major/ significant incidents and preventative action taken
Number of fatalities			
Number of disabling incidents			
Number of Medical Treatment Cases			
Number of first aid Cases			
Number of near miss incidents			
Motor vehicle incidents			
Number of environmental incidents			
Positive substance abuse incidents			
Substandard Act/ Conditions observed			
Legal violations observed			

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2. Details of SHE Meetings

Date	No of participants	Major SHE Concerns	Action taken

3. Details of Audits/Inspections

Date	Area / Facility	Findings/Recommendations	Action taken

5. Details of any SHE Promotional activities for the month

Date	Activity	Remarks

6. Safety Communication

Month	Number of Safety talks held	Remarks

Attach separate sheets for further or other details

…….. …… ……

Name of Contractor Representative Signature Date

Contractor Signature…… . Date……

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Annex C

Local Content Declaration - Summary Schedule

(C1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(C2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(C3)	**Designated product(s)**	Steel Products and Components for Construction 100%
(C4)	**Tender Authority:**	
(C5)	**Tendering Entity name:**	
(C6)	**Tender Exchange Rate:**	Pula EU GBP
(C7)	**Specified local content %**	100%

			Calculation of local content					
Tender item no's	**List of items**		**Tender price - each (excl VAT)**	**Exempted imported value**	**Tender value- net of exempted imported content**	**Imported value**	**Local value**	**Local content % (per item)**
(C8)	*(C9)*		*(C10)*	*(C11)*	*(C12)*	*(C13)*	*(C14)*	*(C15)*

Signature of tenderer

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(C2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD
(C3)	**Designated product(s)**	Electrical cable products 90%
(C4)	**Tender Authority:**	
(C5)	**Tendering Entity name:**	
(C6)	**Tender Exchange Rate:**	Pula EU GBP
(C7)	**Specified local content %**	90%

		Calculation of local content					
Tender item no's	**List of items**	**Tender price - each (excl VAT)**	**Exempted imported value**	**Tender value- net of exempted imported content**	**Imported value**	**Local value**	**Local content % (per item)**
(C8)	*(C9)*	*(C10)*	*(C11)*	*(C12)*	*(C13)*	*(C14)*	*(C15)*

Signature of tenderer

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(C2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD
(C3)	**Designated product(s)**	Batteries 50%
(C4)	**Tender Authority:**	
(C5)	**Tendering Entity name:**	
(C6)	**Tender Exchange Rate:**	Pula EU GBP
(C7)	**Specified local content %**	50%

		Calculation of local content					
Tender item no's	**List of items**	**Tender price - each (excl VAT)**	**Exempted imported value**	**Tender value- net of exempted imported content**	**Imported value**	**Local value**	**Local content % (per item)**
(C8)	*(C9)*	*(C10)*	*(C11)*	*(C12)*	*(C13)*	*(C14)*	*(C15)*

Signature of tenderer

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(C2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD
(C3)	**Designated product(s)**	pipes 100%
(C4)	**Tender Authority:**	
(C5)	**Tendering Entity name:**	
(C6)	**Tender Exchange Rate:**	Pula EU GBP
(C7)	**Specified local content %**	100%

		Calculation of local content					
Tender item no's	**List of items**	**Tender price - each (excl VAT)**	**Exempted imported value**	**Tender value- net of exempted imported content**	**Imported value**	**Local value**	**Local content % (per item)**
(C8)	*(C9)*	*(C10)*	*(C11)*	*(C12)*	*(C13)*	*(C14)*	*(C15)*

Signature of tenderer

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(C2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD
(C3)	**Designated product(s)**	furniture 80%
(C4)	**Tender Authority:**	
(C5)	**Tendering Entity name:**	
(C6)	**Tender Exchange Rate:**	Pula EU GBP
(C7)	**Specified local content %**	80%

		Calculation of local content					
Tender item no's	**List of items**	**Tender price - each (excl VAT)**	**Exempted imported value**	**Tender value- net of exempted imported content**	**Imported value**	**Local value**	**Local content % (per item)**
(C8)	*(C9)*	*(C10)*	*(C11)*	*(C12)*	*(C13)*	*(C14)*	*(C15)*

Signature of tenderer

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(C2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD
(C3)	**Designated product(s)**	Steel power plyons 100%
(C4)	**Tender Authority:**	
(C5)	**Tendering Entity name:**	
(C6)	**Tender Exchange Rate:**	Pula EU GBP
(C7)	**Specified local content %**	100%

		Calculation of local content					
Tender item no's	**List of items**	**Tender price - each (excl VAT)**	**Exempted imported value**	**Tender value- net of exempted imported content**	**Imported value**	**Local value**	**Local content % (per item)**
(C8)	*(C9)*	*(C10)*	*(C11)*	*(C12)*	*(C13)*	*(C14)*	*(C15)*

Signature of tenderer

Date:

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/3	SIG 24021CIDB (HOAC HO 40221)/1	**Note: VAT to be excluded from all calculations**
(D2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS		
(D3)	**Designated Products:**	Steel power plyons 100%		
(D4)	**Tender Authority:**			
(D5)	**Tendering Entity name:**			
(D6)	**Tender Exchange Rate:**	Pula	EU R 9.00	GBP R 12.00

A. Exempted imported content

				Calculation of imported content					
Tender item no's	**Description of imported content**	**Local supplier**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Exchange Rate**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D7)	*(D8)*	*(D9)*	*(D10)*	*(D11)*	*(D12)*	*(D13)*	*(D14)*	*(D15)*	*(D16)*

B. Imported directly by the Tenderer

				Calculation of imported content					
Tender item no's	**Description of imported content**	**Unit of measure**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Rate of Exchange**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D20)	*(D21)*	*(D22)*	*(D23)*	*(D24)*	*(D25)*	*(D26)*	*(D27)*	*(D28)*	*(D29)*
	`								

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content					
Description of imported content	**Unit of measure**	**Local supplier**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Rate of Exchange**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*
`									

D. Other foreign currency payments

			Calculation of foreign currency payments	
Type of payment	**Local supplier making the payment**	**Overseas beneficiary**	**Foreign currency value paid**	**Tender Rate of Exchange**
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*

Signature of tenderer

Date:

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/3	SIG 24021CIDB (HOAC HO 40221)/1	**Note: VAT to be excluded from all calculations**
(D2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS		
(D3)	**Designated Products:**	Batteries 50%		
(D4)	**Tender Authority:**			
(D5)	**Tendering Entity name:**			
(D6)	**Tender Exchange Rate:**	Pula	EU R 9.00	GBP R 12.00

A. Exempted imported content

Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D7)	*(D8)*	*(D9)*	*(D10)*	*(D11)*	*(D12)*	*(D13)*	*(D14)*	*(D15)*	*(D16)*

B. Imported directly by the Tenderer

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D20)	*(D21)*	*(D22)*	*(D23)*	*(D24)*	*(D25)*	*(D26)*	*(D27)*	*(D28)*	*(D29)*
	`								

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*
`									

D. Other foreign currency payments

Type of payment	Local supplier making the payment	Overseas beneficiary	Calculation of foreign currency payments: Foreign currency value paid	Tender Rate of Exchange
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*

Signature of tenderer

Date:

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/3	SIG 24021CIDB (HOAC HO 40221)/1	**Note: VAT to be excluded from all calculations**
(D2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS		
(D3)	**Designated Products:**	Offide furniture 80%		
(D4)	**Tender Authority:**			
(D5)	**Tendering Entity name:**			
(D6)	**Tender Exchange Rate:**	Pula	EU R 9.00	GBP R 12.00

A. Exempted imported content

Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D7)	*(D8)*	*(D9)*	*(D10)*	*(D11)*	*(D12)*	*(D13)*	*(D14)*	*(D15)*	*(D16)*

B. Imported directly by the Tenderer

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D20)	*(D21)*	*(D22)*	*(D23)*	*(D24)*	*(D25)*	*(D26)*	*(D27)*	*(D28)*	*(D29)*
	`								

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*
`									

D. Other foreign currency payments

Type of payment	Local supplier making the payment	Overseas beneficiary	Calculation of foreign currency payments: Foreign currency value paid	Tender Rate of Exchange
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*

Signature of tenderer

Date:

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(D2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(D3)	**Designated Products:**	Steel Products and Components for Construction 100%
(D4)	**Tender Authority:**	
(D5)	**Tendering Entity name:**	
(D6)	**Tender Exchange Rate:**	Pula

Note: **VAT to be excluded from all calculations**

EU R 9.00 GBP R 12.00

A. Exempted imported content

Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D7)	*(D8)*	*(D9)*	*(D10)*	*(D11)*	*(D12)*	*(D13)*	*(D14)*	*(D15)*	*(D16)*

B. Imported directly by the Tenderer

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D20)	*(D21)*	*(D22)*	*(D23)*	*(D24)*	*(D25)*	*(D26)*	*(D27)*	*(D28)*	*(D29)*
	`								

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*
`									

D. Other foreign currency payments

Type of payment	Local supplier making the payment	Overseas beneficiary	Calculation of foreign currency payments: Foreign currency value paid	Tender Rate of Exchange
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*

Signature of tenderer

Date:

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(D2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRALREGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(D3)	**Designated Products:**	Electrical cable products 90%
(D4)	**Tender Authority:**	
(D5)	**Tendering Entity name:**	
(D6)	**Tender Exchange Rate:**	Pula

Note: VAT to be excluded from all

EU R 9.00 GBP R 12.00

A. Exempted imported content

				Calculation of imported content					
Tender item no's	**Description of imported content**	**Local supplier**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Exchange Rate**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D7)	*(D8)*	*(D9)*	*(D10)*	*(D11)*	*(D12)*	*(D13)*	*(D14)*	*(D15)*	*(D16)*

B. Imported directly by the Tenderer

				Calculation of imported content					
Tender item no's	**Description of imported content**	**Unit of measure**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Rate of Exchange**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D20)	*(D21)*	*(D22)*	*(D23)*	*(D24)*	*(D25)*	*(D26)*	*(D27)*	*(D28)*	*(D29)*
	`								

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content					
Description of imported content	**Unit of measure**	**Local supplier**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Rate of Exchange**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*
`									

D. Other foreign currency payments

			Calculation of foreign currency payments	
Type of payment	**Local supplier making the payment**	**Overseas beneficiary**	**Foreign currency value paid**	**Tender Rate of Exchange**
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*

Signature of tenderer

Date:

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1	**Note: VAT to be excluded from all calculations**
(D2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS	
(D3)	**Designated Products:**	pipes 100%	
(D4)	**Tender Authority:**		
(D5)	**Tendering Entity name:**		
(D6)	**Tender Exchange Rate:**	Pula	EU R 9.00 GBP R 12.00

A. Exempted imported content

				Calculation of imported content					
Tender item no's	**Description of imported content**	**Local supplier**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Exchange Rate**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D7)	*(D8)*	*(D9)*	*(D10)*	*(D11)*	*(D12)*	*(D13)*	*(D14)*	*(D15)*	*(D16)*

B. Imported directly by the Tenderer

				Calculation of imported content					
Tender item no's	**Description of imported content**	**Unit of measure**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Rate of Exchange**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D20)	*(D21)*	*(D22)*	*(D23)*	*(D24)*	*(D25)*	*(D26)*	*(D27)*	*(D28)*	*(D29)*
	`								

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content					
Description of imported content	**Unit of measure**	**Local supplier**	**Overseas Supplier**	**Forign currency value as per Commercial Invoice**	**Tender Rate of Exchange**	**Local value of imports**	**Freight costs to port of entry**	**All locally incurred landing costs & duties**	**Total landed cost excl VAT**
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*
`									

D. Other foreign currency payments

			Calculation of foreign currency payments	
Type of payment	**Local supplier making the payment**	**Overseas beneficiary**	**Foreign currency value paid**	**Tender Rate of Exchange**
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*

Signature of tenderer

Date:

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(E2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(E3)	**Designated products:**	Steel Power pylons 100%
(E4)	**Tender Authority:**	
(E5)	**Tendering Entity name:**	

Note: **VAT to be excluded from all calculations**

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	*(E7)*	*(E8)*
		(E9) Total local products (Goods, Services and Works)	R 0

(E10)	Manpower costs	(Tenderer's manpower cost)	R 0
(E11)	y overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)	R 0
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)	R 0
		***(E13)* Total local content**	R 0

Signature of tenderer

Date:

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(E2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(E3)	**Designated products:**	pipes 100%
(E4)	**Tender Authority:**	
(E5)	**Tendering Entity name:**	

Note: **VAT to be excluded from all calculations**

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	*(E7)*	*(E8)*
		***(E9)* Total local products (Goods, Services and Works)**	R 0

(E10)	**Manpower costs**	(Tenderer's manpower cost)	R 0
(E11)	**y overheads**	(Rental, depreciation & amortisation, utility costs, consumables etc.)	R 0
(E12)	**Administration overheads and mark-up**	(Marketing, insurance, financing, interest etc.)	R 0
		***(E13)* Total local content**	R 0

Signature of tenderer

Date:

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(E2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(E3)	**Designated products:**	office furniture 90%
(E4)	**Tender Authority:**	
(E5)	**Tendering Entity name:**	

Note: **VAT to be excluded from all calculations**

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	*(E7)*	*(E8)*
		(E9) Total local products (Goods, Services and Works)	R 0

(E10) Manpower costs (Tenderer's manpower cost) R 0

(E11) y overheads (Rental, depreciation & amortisation, utility costs, consumables etc.) R 0

(E12) Administration overheads and mark-up (Marketing, insurance, financing, interest etc.) R 0

(E13) **Total local content** R 0

Signature of tenderer

Date:

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(E2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(E3)	**Designated products:**	batteries 50%
(E4)	**Tender Authority:**	
(E5)	**Tendering Entity name:**	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	**Description of items purchased**	**Local suppliers**	**Value**
	(E6)	*(E7)*	*(E8)*
		***(E9)* Total local products (Goods, Services and Works)**	R 0

(E10) **Manpower costs** (Tenderer's manpower cost) R 0

(E11) **y overheads** (Rental, depreciation & amortisation, utility costs, consumables etc.) R 0

(E12) **Administration overheads and mark-up** (Marketing, insurance, financing, interest etc.) R 0

***(E13)* Total local content** R 0

Signature of tenderer

Date:

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(E2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(E3)	**Designated products:**	Electrical cable products 90%
(E4)	**Tender Authority:**	
(E5)	**Tendering Entity name:**	

Note: **VAT to be excluded from all calculations**

Local Products (Goods, Services and Works)	**Description of items purchased**	**Local suppliers**	**Value**
	(E6)	*(E7)*	*(E8)*
		***(E9)* Total local products (Goods, Services and Works)**	R 0

(E10)	**Manpower costs** (Tenderer's manpower cost)	R 0
(E11)	**y overheads** (Rental, depreciation & amortisation, utility costs, consumables etc.)	R 0
(E12)	**Administration overheads and mark-up** (Marketing, insurance, financing, interest etc.)	R 0
	***(E13)* Total local content**	R 0

Signature of tenderer

Date:

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	**Tender No.**	SIG 24021CIDB (HOAC HO 40221)/1
(E2)	**Tender description:**	RFP FOR THE REFURBISHMENT WORK TO ENABLE DIGITAL RADIO HIGH SITES COMMUNICATION NETWORK AT TRANSNET RAIL INFRASTRUCTURE MANAGER(TRIM) BUILDINGS NATIONALLY (CENTRAL REGIONS-) FOR A PERIOD OF FIVE (5) YEARS ON AN "AS AND WHEN" REQUIRED BASIS
(E3)	**Designated products:**	Steel Products 100%
(E4)	**Tender Authority:**	
(E5)	**Tendering Entity name:**	

<u>Note:</u> VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	**Description of items purchased**	**Local suppliers**	**Value**
	(E6)	*(E7)*	*(E8)*
		(E9) **Total local products (Goods, Services and Works)**	R 0

(E10)	**Manpower**	(Tenderer's manpower cost)	R 0
(E11)	**y overheads**	(Rental, depreciation & amortisation, utility costs, consumables etc.)	R 0
(E12)	**Administration overheads and mark-up**	(Marketing, insurance, financing, interest etc.)	R 0
		(E13) **Total local content**	R 0

<u>Signature of tenderer</u>

Date: ______________________