

**TRANSNET**



*freight rail*

**NEC3 Engineering & Construction Contract (ECC3)**

**Transnet SOC Limited**

(REGISTRATION NO.1990/000900/06)

trading as

**Transnet Freight Rail**

**TENDER NO. S.I.E 11010/2 CIDB**

**TENDER DOCUMENT FOR THE REPLACEMENT OF  
PRIMARY CIRCUIT BREAKERS AT VARIOUS GFB  
SUBSTATIONS PHASE: ERMELO, VRYHEID AND  
EMPANGENI DEPOTS.**

**OPENS: 27 February 2012**

**CLOSES: 27 March 2012 at 10h00 (Tuesday)**

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# PART T 1: Tendering Procedures

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"Preview Copy Only"

## PART T1: TENDERING PROCEDURES

### T1.1 TENDER NOTICE AND INVITATION TO TENDER

RFP NO. S.I.E 11010/2 CIDB

Transnet SOC Ltd trading as Transnet Freight Rail (the employer) invites tenders for the replacement of primary circuit breakers at various substations, countrywide

Tenderers should have a CIDB contractor grading designation of 6 EP or higher. Only tenderers, who are registered with the CIDB, are eligible to submit tenders.

The physical address for collection of tender documents is: Transnet Freight Rail Tender Advice Centre, Ground Floor, Inyanda House 1, 21 Wellington Road, Parktown.

Tender documents may be collected during working hours after **08:00 on 27 February 2012** and will only be available until **15:00 on Tuesday, 06 March 2012**.

**On payment of an amount of R750.00 (per set) to be made to Transnet Freight Rail at the Standard Bank, account number 203158598, branch code 004805, ref no. RFP No. SIE11010CIDB. The official Bank receipt(s) franked with the official Bank stamp to be provided with the collection of a tender document. This amount is not refundable. No tenders will be sold after 15:00 on Tuesday, 06 March 2012.**

All queries must be addressed via e-mail to:

Mr. Abel Molokwane  
Tel No. (011) 584-0621  
E mail [Abel.Molokwane@transnet.net](mailto:Abel.Molokwane@transnet.net)

or

Sarah Assegaai  
E-mail [Sarah.Assegaai@transnet.net](mailto:Sarah.Assegaai@transnet.net)

A **compulsory** clarification meeting with representatives of the Employer will take place at Barongwa Boardroom, Ground Floor, Inyanda House 2, 15 Girton Road, Parktown on Wednesday, 07 March 2012 starting at 10h00. Tenderers without a valid tender document in their possession will not be allowed to attend the clarification meeting. The clarification meeting will be followed by a **compulsory** site inspection within travelling distance on the same day.

Transnet reserves the right to accept the whole or any part of a tender. Transnet also reserves the right to negotiate terms and conditions with all, or a short-listed group of contenders, or the preferred Tenderer, should it be deemed necessary.

This tender closes punctually at **10h00 on 27 March 2012**.

Tenders may only be submitted on the tender documentation that is issued. Telegraphic, telephonic, facsimile and late tenders will not be accepted.

Tenderers are warned that a tender will be liable to disqualification should any attempt be made by a Tenderer either directly or indirectly to canvass any officer(s) or employees of Transnet Limited in respect of a tender between the date the tender is submitted and the date of the award. A Tenderer may, however, at any time communicate with the Chairperson of the Transnet Freight Rail Acquisition Council, at telephone no. 011 544 9486 on any matter relating to his tender.

Envelopes must not contain documents relating to any tender other than that shown on the envelope. *No slips are to be attached to the tender documents. Any additional conditions must be embodied in an accompanying letter. Alterations, additions or deletions must not be made by the Tenderer to the actual tender documents.* Tenders submitted by Tenderers must be neatly bound and the inclusion of loose documents must be avoided.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

Compliance of tender(s) with Transnet's requirements is the sole responsibility of the Tenderer and any costs incurred in subsequent modifications to or replacement of equipment accepted by Transnet Limited in good faith on the grounds of certified compliance with specified standards by the contractor and in fact found to be inadequate in such respects, will be to the relevant Tenderer's account

### **BROAD-BASED BLACK ECONOMIC EMPOWERMENT ("BBBEE")**

TRANSNET fully endorses and supports the South African Government's Broad-Based Black Economic Empowerment Programme and it is strongly of the opinion that all business enterprises have an equal obligation to redress the imbalances of the past. TRANSNET would therefore prefer to do business with business enterprises who share these same values and who are prepared to contribute to meaningful BBBEE initiatives (including and not limited to enterprise development, subcontracting and Joint Ventures) as part of their tender response.

Transnet would accordingly allow a "preference" in accordance with the 10% preference system, as per the Preferential Procurement Policy Framework Act 5 of 2000 (as amended) to companies who provide a BBBEE accreditation Certificate. All procurement and disposal transactions in excess of R30000 will be evaluated accordingly. All transactions below R30,000 will as far as possible be earmarked for EME's.

TRANSNET consequently urges Respondents (Large enterprises and QSE's – see below) to have themselves duly accredited by any one of the Accreditation Agencies **approved** by SANAS (South African National Accreditation System, under the auspices of the DTI).

In terms of Government Gazette No. 32467, Notice No. 810 dated 31 July 2009, as from 1 February 2010 only BBBEE certificates issued by Accredited Verification Agencies of Verification Agencies that are in possession of a valid pre-assessment letter from South African National Accreditation System will be valid.

However accreditation certificates issued by non-accredited verification agencies before 01 February 2010 and which are still within their one (1) year validity period will still be acceptable, until their expiry date provided that the accreditation was done in accordance with the latest codes (i.e. those promulgated on 9 February 2007).

BBBEE Accreditation Certificates issued after the published date i.e. 01 February 2010, by a Verification Agency not approved by SANAS, will NOT be acceptable as from 01 February 2010.

Enterprises will be rated by such Accreditation Agencies based on the following:

- (a) Large Enterprises (i.e. annual turnover >R35 million):
  - Rating level based on all 7 (seven) elements of the BBBEE scorecard
  - Enterprises to provide BBBEE certificate and detailed scorecard (to be renewed annually)
- (b) Qualifying Small Enterprises – QSE (i.e. annual turnover >R5 million but <R35 million):
  - Rating based on any 4 (four) of the elements of the BBBEE scorecard
  - Enterprises to provide BBBEE certificate and detailed scorecard (to be renewed annually)
- (c) Exempted Micro Enterprises – EME (i.e. annual turnover <R5m are exempted from being rated or verified):
  - Automatic BBBEE Level 4 rating, irrespective of race ownership, i.e. 100% BBBEE recognition
  - Black ownership >50% or Black Women ownership >30% automatically qualify as Level 3 BBBEE rating, i.e. 110% BBBEE recognition
  - EME's should provide documentary proof of annual turnover (i.e. audited financials) plus proof of Black ownership if Black ownership >50% or Black Women ownership >30% (to be renewed annually) from their Auditors / Accounting Officers

In addition to the above, Respondents who wish to enter into a Joint Venture (JV) or subcontract portions of the contract to BBBEE companies must state in their Tenders / Proposals the percentage of the total contract value which would be allocated to such BBBEE companies, should they be successful in being awarded any business. A rating certificate in respect of such BBBEE JV-partners and/or sub-contractors, as well as a breakdown of the distribution of the aforementioned percentage allocation must also be furnished with the tender response to enable Transnet to evaluate / adjudicate on all tenders received on a fair basis.

Each Respondent is required to furnish proof of its BBBEE status (Certificate and Detailed Scorecard) and ensure that the documentation is valid at the date of Tender Submission as stipulated above to TRANSNET.

Failure to submit your BBBEE Certificate and Detailed Scorecard will result in a score of zero being allocated for BBBEE evaluation.

Turnover: Indicate your company's most recent annual turnover: R.....
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- If annual turnover <R5m, please attach auditors / accounting officers letter confirming annual turnover and percentage black ownership as well as Black Women ownership
- If annual turnover >R5m please attach BBBEE certificate and detailed scorecard from an accredited rating agency.



The DTI has created an online B-BBEE Registry (<http://www.dti.gov.za>) in order to provide a central and standardized source of the B-BBEE status of all entities, and to facilitate the flow of this information amongst entities by providing a Unique Profile Number (UPN) per each listing. Existing and prospective suppliers are therefore urged to list their B-BBEE status on the DTI Registry. Hence, entities verified by DTI, will receive the following benefits:

- Their BBBEE status will be verified and confirmed by the DTI, before listing on the Registry
- Listing on the Registry will provide suppliers the option to market themselves on the DTI B-BBEE Opportunities Network. This is a search engine that is designed to help businesses find B-BBEE compliant entities who match specific requirements in terms of the nature of services/goods provided, region, B-BBEE status or other search criteria.

Transnet supports this DTI initiative and will use the DTI Registry to verify prospective and existing suppliers' BBBEE credentials.

Kindly provide Transnet with your DTI B-BBEE UNIQUE PROFILE NUMBER with all tender submissions.

DTI BBBEE UNIQUE PROFILE NUMBER: .....
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Failure to submit your BBBEE information in terms of the above-mentioned clauses will result in a score of zero being allocated for BBBEE evaluation.

Suppliers and Tenderers are requested to duly complete the Supplier Declaration Form (SDF) and provide all the relevant supporting attachments as requested. Failure to provide the following may disqualify your tender submission:-

1. Duly completed SDF
2. Current tax clearance certificate

The Supplier and Tenderer shall furnish proof of the above to Transnet.

Transnet at its sole discretion may decide to allow certain price preferences in order to uplift the historically disadvantaged in terms of the PPPFA (Act 5 of 2000).

Transnet insists on honesty and integrity beyond reproach at all times and will not tolerate any form of improper influencing, bribery, corruption, fraud, or any other unethical conduct on the part of bidders/Transnet employees. If, in the opinion of Transnet's Chief Operating Officer, a tenderer/contractor/supplier has or has caused to be promised, offered or given to any Transnet employee, any bribe, commission, gift, loan, advantage or other consideration, Transnet shall be entitled to revoke the tender / contract by following its internal policies that govern the Exclusion process. In such an event Transnet will be entitled to place any Tenderer/Contractor/Supplier who has contravened the provisions of Transnet's business ethics on its List of Excluded Tenderers. This List will also be distributed to all other State Owned Enterprises and Government Departments.

Transnet invites its valued suppliers to report any allegations of fraud, corruption or other unethical activities to Transnet Tip-offs Anonymous, at any of the following addresses/contract numbers :-

- Toll free anonymous hotline – 0800 003 056
- Email – [Transnet@tip-offs.com](mailto:Transnet@tip-offs.com)
- Fax number – 0800 007 788
- Freepost DN 298, Umhlanga Rocks, 4320

CONFIDENTIALITY IS GUARANTEED.



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delivering on our commitment *to you*

# Suppliers Code of Conduct



# Suppliers Code of Conduct

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

These are:

- » 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); and
- » The Anti-Corruption Act.

This code of conduct has been compiled to formally apprise 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.

**Transnet 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 influence the outcome of a sourcing activity;
  - Win or retain business or to influence any act or decision of any person involved in sourcing decisions; gain an improper advantage.
- » There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our suppliers to use our "Tip-offs Anonymous" Hotline to report these acts - 0800 003 056.

**Transnet is firmly committed to 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 non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).

**Transnet's relationship with suppliers requires us to clearly define requirements, 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 must be 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.

## Conflict 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. Examples are:

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



Show that you support good business practice by logging onto [www.transnet-suppliers.net](http://www.transnet-suppliers.net) and completing the form.

This will allow us to confirm that you have received, and agree to, the terms and conditions set out in our Suppliers Code of Conduct.

**TIP-OFFS ANONYMOUS HOTLINE**  
**0800 003 056**

## PART T1.2: TENDER DATA

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## T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement. (See [www.cidb.org.za](http://www.cidb.org.za)) The Standard Conditions of Tender make several references to the Tender Data for details 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 to the clause in the Standard Conditions of Tender to which it mainly applies.

F.1.1 The employer is Transnet Limited trading as **Transnet Freight Rail**.

F.1.2 The tender documents issued by the employer comprise:

**Part T1: Tendering procedure**

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 C1: Agreements and contract data**

C1.1 Form of offer and acceptance

C1.2 Contract data

**Part C2: Pricing data**

C2.1 Pricing instructions

C2.2 Price list / Bill of quantities

**Part C3: Scope of work**

C3 Works information

**Part C4: Site information**

C4 Site information

F.1.3 The employer's agent is:

Name : **Malibongwe Mlonzi**

Address : **Table 1/16, Inyanda House 3, 12a St Andrews Road, Parktown**

Tel : **011 583 0149**

Cell : **083 414 4175**

E-mail : [Malibongwe.Mlonzi@transnet.net](mailto:Malibongwe.Mlonzi@transnet.net)

F.2.1.1 The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders:

- a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **6EP** class of construction work are eligible to submit tenders.

Joint ventures are eligible to submit tenders provided that:

1. Every member of the joint venture is registered with the CIDB;
2. The lead partner has a contractor grading designation in the **6EP** class of construction work; and
3. The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **6EP** class of construction work.

F.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.

Confirmation of attendance to be notified at least one full working day in advance to:

Name : **Samuel Motele**

Tel : **011 583 0150**

Cell : **083 462 3351**

E-mail : [Samuel.Motele@transnet.net](mailto:Samuel.Motele@transnet.net)

Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.

F2.1.2 If a tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.

Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.

The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.

F.2.13.3 Parts of each tender offer communicated on paper shall be submitted as an original plus **one** copy.

F.2.13.5 The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

If posted, the envelope must be addressed to:

**The Chairperson  
Transnet Freight Rail Acquisition Council  
P.O. Box 4244  
JOHANNESBURG  
2000**

And must be dispatched in time for sorting by the Post Office to reach the Post Office Box indicated above, before the closing time of the tender.

If delivered by hand, to be deposited in the Transnet Freight Rail Acquisition Council tender box which will be located in the foyer, and addressed to:

**The Chairperson  
Transnet Freight Rail Acquisition Council  
Ground Floor, Inyanda House  
21 Wellington Road  
Parktown  
JOHANNESBURG  
2001**

It should also be noted that the above tender box is accessible to the public 24 hours per day, 7 days a week.

The measurements of the "tender slot" are 500mm wide x 100mm high, and Tenderers must please ensure that tender documents/files are not larger than the above dimensions. Tenders, which are too bulky (i.e. more than 100mm thick) must be split into two or more files, and placed in separate envelopes.

#### **Identification details**

Tenders must be submitted before the closing hour on the date and time listed in the 'Notice and Invitation to Tender'; and must be enclosed in a sealed envelope which must have inscribed on the outside.

- (a) Tender No.
- (b) Description of work
- (c) Closing date of tender

F.2.13.6 The two-envelope procedure will not be followed.

F.2.15 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tenderer.

F.2.15 Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

F.2.16 The tender offer validity period is **12 weeks**.

F.2.19 Access shall be provided for the following inspections, tests and analysis:

- a) Substations locations and access routes
- b) Equipment currently installed

F.3.4 The time and location for opening of the tender offers is:  
Time 11h00 on the closing date of tender  
Location: **Table G66 and G69, West Wing, Ground Floor  
Inyanda House  
21 Wellington Road, Parktown  
Johannesburg**

F3.11.1 The procedure for the evaluation of responsive tenders is Method 4

The score for quality is to be calculated using the following formula:

$$W_Q = W_2 \times S_O / M_S$$

Where  $W_2$  is the percentage score given to quality and equals 65

$S_O$  is the score for quality allocated to the submission under consideration.

$M_S$  is the maximum possible score for quality in respect of a submission.

The score for financial offer is calculated using Formula 2 (option 1) of SANS 294,

Where  $W_1$  is the percentage score given to financial offer and equals 100 minus  $W_2$ .

The score for quality and financial offer is to be combined, before the addition of the score for preference, as follows:

$$W_C = W_3 \times \left(1 + \frac{S - S_m}{S_m}\right)$$

Where  $W_3$  is the number of tender evaluation points for quality and financial offer and equals:

- 1) 90 where the financial value, VAT inclusive, of all responsive tenders received have a value in excess of R 1 000 000; or

$S$  is the sum of score for quality and financial offer of the submission under consideration

$S_m$  is sum of the score for quality and financial offer of the submission scoring the highest number of points

Up to 100 minus  $W_3$  tender evaluation points will be awarded to Tenderers for BBEE preference.

F.3.11.3 Only those Tenderers who score a minimum score of 65 points in respect of the following quality criteria will be considered further.

Description of quality criteria and sub criteria		Maximum number of tender evaluation points
Approach paper which responds to the scope of work and outlines proposed methodology and work plan complete with time frames.	Technical approach and methodology	25
	Work plan with timeframes	
Experience of key staff	General qualifications	20
	Adequacy for assignment	
Compliance to specifications		20
Safety		10
<ul style="list-style-type: none"> <li>• Risk</li> <li>• Environmental Management/ Integrated Management System</li> </ul>		10
Comparable projects		15
Total evaluation points for quality (W <sub>Q</sub> )		100

<b>CATEGORY: COMMERCIAL</b>		
• Competitive Pricing		50
• Financial Capacity		50
<b>TOTAL</b>		100
<b>CATEGORY: B-BBEE</b>		
• B-BBEE Certificate and Scorecard		100
<b>TOTAL</b>		100

<b>CATEGORY: SUPPLIER / ENTERPRISE DEVELOPMENT</b>		
• Submission of SD / ED Strategy (also a pre-requisite)		10
• Quality of SD / ED Strategy		
• Skills Development		15
• Small Business Promotion		15
• Rural Development		15
• Job Creation / Preservation		15
<b>CATEGORY: FURTHER RECOGNITION</b>		
• Business Owned		4.5
• Business Black Woman Owned		4.5
• EME		4.5
• QSE		1.5
• Other initiatives		15
<b>TOTAL</b>		100

Criteria to be evaluated on the following scales:

a) Failed / Nil Submitted	=	0
Poor	=	1
Average	=	3
Good	=	4
Excellent	=	5

The table below outlines the method that will be used to score 'Compliance to Specification' under the category technical/ Practical. The rest of the categories will be evaluated based on table A3: "indicators for the rating of quality and sub criteria" extracted from the CIDB document 'Best Practice Guideline A4': Evaluating quality in tender submissions.

<b>Compliance to specification</b>	<b>Point</b>
Scoring Scale	
<ul style="list-style-type: none"> <li>Compliance to drawings, specification and adopted standards (SANS, IEC, e.t.c)</li> <li>Compliance documentation submitted.</li> <li>Product proven and approved for Transnet Freight Rail use.</li> </ul>	<u>100</u>
<ul style="list-style-type: none"> <li>Non-Critical deviation on specification / drawings with alternatives offered.</li> <li>Technical documentation submitted must be suitable for making a technical judgment.</li> <li>Documentation offered to prove international wide acceptance.</li> </ul>	<u>80</u>
<ul style="list-style-type: none"> <li>Deviation from specification / drawing.</li> <li>Inadequate information submitted for making a technical judgment.</li> </ul>	<u>40</u>

The table below outlines the method that will be used to score 'Compliance to Specification' under the category technical/ Practical. The rest of the categories will be evaluated based on table A3: "indicators for the rating of quality and sub criteria" extracted from the CIDB document 'Best Practice Guideline A4': Evaluating quality in tender submissions.

F.3.13.1 Tender offers will only be accepted if:

- (a) The tenderer has in his or her possession an original valid Tax Clearance Certificate issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations.
- (b) The tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
- (c) The tenderer or any of its directors 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.
- (d) The tenderer has not:
  - i. abused the Employer's Supply Chain Management System; or
  - ii. failed to perform on any previous contract and has been given a written notice to this effect; and

- (e) has 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.

F.3.18 The number of paper copies of the signed contract to be provided by the employer is **one**.

The additional conditions of tender are:

- 1 The Tenderer is deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the *works* and of the rates and prices stated in the priced Bill of Quantities in the *works* Information. The rates and prices (except in so far as otherwise provided in the Tender) collectively cover full payment for the discharge of all his obligations under the Contract and all matters and things necessary for the proper completion of the *works*.
- 2 Notwithstanding what is stated in Pricing Data, Tenderers are required to tender for **all** the areas quoted in the Bill of Quantities.
- 3 Tenders shall be completed in black ink only.
- 4 Open tender to engage new entrants. Advertising in the local media to encourage more entrants/Tenderers. The Contractor is to submit a proposal of how to fulfil the requirement to include disadvantaged people in participating in the economy in a sustainable manner by providing them with basic needs/ or skills within the "scope area"
- 5 ***Tender will be disqualified if all returnable documents and schedules are not returned.***

**C1.2 CONTRACT DATA PROVIDED BY CONTRACTOR (ECC3)**

**Part Two – Data Provided by the Contractor**

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

**Statements given in all contracts**

(a) The Contractor is

Name .....

Address .....

.....

.....

(b) The direct fee percentage is ..... %

(c) The subcontracted fee percentage is ..... %

(d) The working areas are the Site and .....

.....

(e) The key people are

(1) Name .....

Job .....

Responsibilities .....

.....

Qualifications .....

Experience .....

.....

.....

(2) Name .....

Job .....

Responsibilities .....

.....

Qualifications .....



Experience . . . . .  
.....  
.....

(3) Name . . . . .  
Job . . . . .  
Responsibilities . . . . .  
.....  
Qualifications . . . . .  
Experience . . . . .  
.....

(4) Name . . . . .  
Job . . . . .  
Responsibilities . . . . .  
.....  
Qualifications . . . . .  
Experience . . . . .  
.....

(f) The following matters will be included in the Risk Register  
.....  
.....  
.....  
.....

**Optional statements (a) If the Contractor is to provide Works Information for his design**

The Works Information for the Contractor's design is in  
.....  
.....  
.....

**(b) If a programme is to be identified by the Contract Data.**

The programme identified in the Contract Data is  
.....



**(c) If the Contractor is to decide the completion date for the whole of the works**

The completion date for the works is

Depot	Completion Period (Months)
Ermelo	
Vryheid	
Empangeni	

**If Option A or B is used**

**Data for SSCC**

- (a) The percentage for people overheads is .....%.
- (b) The published list of Equipment is the last edition of the list published by  
.....
- (c) The percentage for adjustment for Equipment in the published list is .....% (state plus or minus).
- (d) The rates for other Equipment are
- | Equipment | size or capacity | rate  |
|-----------|------------------|-------|
| .....     | .....            | ..... |
| .....     | .....            | ..... |
| .....     | .....            | ..... |
| .....     | .....            | ..... |
- (e) The hourly rates for Defined Cost of design outside the Working Areas are
- | category of employee   | hourly rate |
|------------------------|-------------|
| <b>Senior Engineer</b> | .....       |
| <b>Junior Engineer</b> | .....       |
| <b>Draughtsperson</b>  | .....       |
| <b>Tracer</b>          | .....       |
- (f) The percentage of design overheads is .....%
- (g) The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are **all of the categories listed above.**

## C1.3 FORMS OF SECURITIES

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## C1.3 FORMS OF SECURITIES (ECC3)

### Pro formas for Bonds & Guarantees

For use with the NEC3 Engineering & Construction Contract (June 2005)

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

Option X13: Performance Bond

This Secondary Option requires a bond or guarantee "in the form set out in the Works Information".

Pro forma documents for this bond and guarantee are provided here for convenience but are to be treated as part of the Works Information.

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

This pro forma document is available for use by the *Surety* on the *Employer's* web page at [www.\\_\\_\\_\\_\\_](http://www._____)

#### **Drafting instructions:**

1. Select the required pro formas by deleting the ones not required, then complete all the details except that which the bond / guarantee provider is required to complete.
2. There are two pro formas suitable for use with Option X13, but only one of them can be used; the Reducing Value Guarantee is generally used only for building works.
3. Then delete these drafting instructions. Delete this whole Securities section if none of the above secondary Options have been selected by the *conditions of contract*.

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

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

**Transnet Freight Rail  
A Division of Transnet SOC Limited  
49th Floor, Carlton Centre  
150 Commissioner Street  
Johannesburg  
2000.**

Date:

Dear Sirs,

### Performance Bond for Contract No. S.I.E 11010/2 CIDB

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

**Transnet Freight Rail, A Division of Transnet SOC Limited**

(the *Employer*) and

{Insert registered name and address of the *Contractor*}

(the *Contractor*), for

**Replacement of Primary Circuit Breakers at various Traction  
Substations: Ermelo, Vryheid and Empangeni.**

(the *works*).

I/We the undersigned

on behalf of the Surety

of physical address

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

1. The terms *Employer*, *Contractor*, *Project Manager*, *works* and Defects Certificate have the meaning as assigned to them by the *conditions of contract* stated in the Contract Data for the aforesaid Contract.
2. We renounce all benefits from the legal exceptions "Benefit of Execution and Division", "No value received" and all other exceptions which might or could be pleaded against the validity of this bond, with the meaning and effect of which exceptions we declare ourselves to be fully acquainted.
3. The *Employer* has the absolute right to arrange his affairs with the *Contractor* in any manner, which the Employer deems, fit and without being advised thereof the Surety shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Surety. Without derogating from the foregoing compromise, extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this performance bond.

4. This bond will lapse on the earlier of
- the date that the Surety receives a notice from the *Project Manager* stating that the last Defects Certificate has been issued, that all amounts due from the *Contractor* as certified in terms of the contract have been received by the *Employer* and that the *Contractor* has fulfilled all his obligations under the Contract, or
  - the date that the Surety issues a replacement Performance Bond for such lesser or higher amount as may be required by the *Project Manager*.
5. Always provided that this bond will not lapse in the event the Surety is notified by the *Project Manager*, (before the dates above), of the *Employer's* intention to institute claims and the particulars thereof, in which event this bond shall remain in force until all such claims are paid and settled.
6. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Surety of a certificate signed by the *Project Manager* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.
7. Our total liability hereunder shall not exceed the sum of:
- (say) \_\_\_\_\_
- R \_\_\_\_\_
8. This Performance Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa.

Signed at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 200\_

Signature(s)	_____
Name(s) (printed)	_____
Position in Surety company	_____
Signature of Witness(s)	_____
Name(s) (printed)	_____

---

# Part C1.4 Adjudicator's Contract

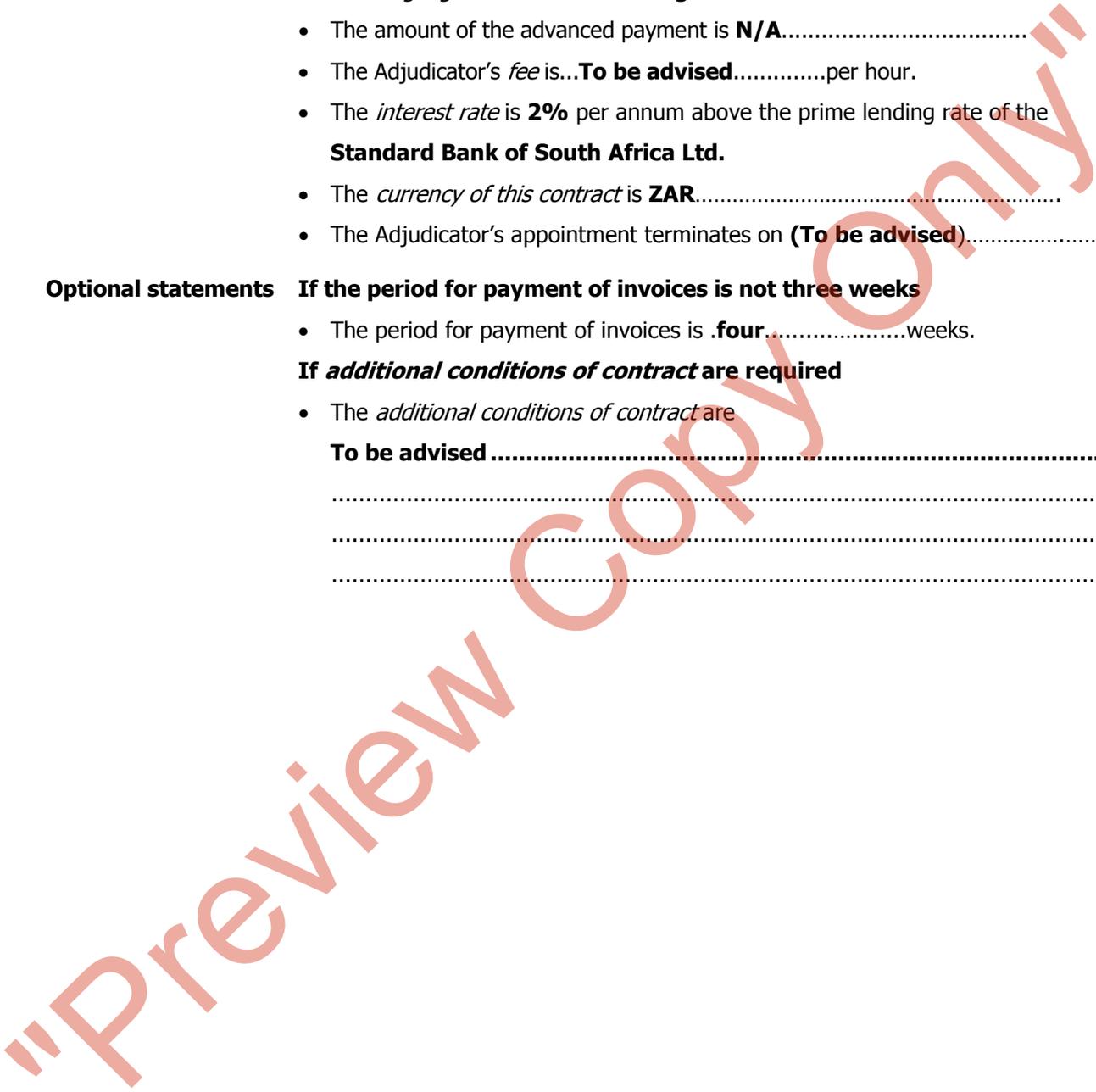
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# CONTRACT DATA

- Statements given in all contracts**
- The *contract between the Parties* is **To be advised**.....
  - The *period of retention* is ...**N/A**..... weeks.
  - The *law of the contract* is the law of **the Republic of South Africa**
  - The *language of this contract* is **English**.....
  - The amount of the advanced payment is **N/A**.....
  - The Adjudicator's *fee* is...**To be advised**.....per hour.
  - The *interest rate* is **2%** per annum above the prime lending rate of the **Standard Bank of South Africa Ltd.**
  - The *currency of this contract* is **ZAR**.....
  - The Adjudicator's appointment terminates on **(To be advised)**.....

- Optional statements**
- If the period for payment of invoices is not three weeks**
- The period for payment of invoices is **.four**.....weeks.
- If additional conditions of contract are required**
- The *additional conditions of contract* are  
**To be advised** .....
- .....
- .....
- .....
- .....



---

## Part C2: Pricing Data

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**PART C2**  
**PRICING DATA**

**CONTENTS**

<b>Section</b>	<b>Description</b>
C2.1	PRICING INSTRUCTIONS
C2.2	BILL OF QUANTITIES

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## PART C2

### BILL OF QUANTITIES AND PRICES

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## Part C2.1

### PRICING INSTRUCTIONS

1. The agreement is based on the NEC Engineering and Construction contract 3.
2. It will be assumed that prices included in the Bill of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.
3. Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
4. The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk – quantities should thus be confirmed for correctness before ordering.
5. The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount of the Preliminaries and any amount in respect of contract price adjustment if provided for in the contract.
6. The following abbreviations are used in the Bills of Quantities:

Hr	=	Hour
Ea	=	Each
XFR	=	Transformer
P&G	=	Preliminary and General
Quant.	=	Quantity
*	=	Contractor to determine
7. The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the scope of work and shall cover liabilities and obligations set forth or implied in the Contract data, as well as profit.
8. The prices/rates supplied in Tables A and B shall be for 'supply and install' unless stated otherwise.
9. Where the scope of work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered for such items. The contractor shall provide for all work needed to make the substation complete and any items not included by the contractor under item "Other" of the "Schedule of Rates and Prices".
10. Where no quantity has been provided against an item in the Bills of Quantities, the Contractor shall use their discretion and provide the quantity. If the contractor does not agree with given units or quantities – the contractor to indicate in a separate note.
11. The quantities set out in these Bills of Quantities are approximate and may not necessarily represent the actual amount of work to be done.

12. The short descriptions of the items of payment given in these Bills of Quantities are only for purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
13. The Contractor shall provide with information related to imported content i.e equipment to be imported, value and applicable exchange rates – separately (Table 2).
14. The total in the Bill of Quantities shall be exclusive of VAT, and shall be transferred to form C1.1 (Form of Offer and Acceptance).

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**PART C3**  
**SCOPE OF WORKS**

**INDEX**

<b>Section No</b>	<b>Description</b>
GENERAL	
C3.1	Description of works
C3.2	Engineering
C3.3	Procurement
C3.4	General Construction Aspect
C3.5	Management of the Works
C3.6	Environmental Requirements
PARTICULAR SPECIFICATION	
C3.7	Outdoor Works

## PART C3

### Section 1

## DESCRIPTION OF THE WORK

Item	Description	INDEX	Page
1.1	Employer's Objective.....		2
1.2	Overview of the Works .....		2
1.3	Extent of the Works .....		2
1.4	Location of the Works .....		2
1.5	Temporary Works .....		2

## PART C3

### Section 1

#### DESCRIPTION OF THE WORKS

##### 1.1 Employer's Objective

1.1.1 The objective of the employer is to replace primary oil circuit breakers with primary gas circuit breakers in all the mentioned substations and to reduce failures in order to achieve predictable service.

##### 1.2 Overview of the Works

1.2.1 Producing the equipment layout design for the Transnet Freight Rail substation portion. The design, supply, installation and commissioning of new equipment for the mentioned substations.

The existing old equipment will be disconnected, removed and transported to the Depot by the Contractor.

##### 1.3 Extent of the Works

1.3.1 The Contractor shall do the work as detailed in the particular specifications BBF1389 version 1.

##### 1.4 Location of the Works

1.4.1 The mentioned substations are from Vryheid, Empangeni, Ermelo and depots.

#### Depots with substation names

Vryheid	Empangeni	Ermelo
1. Hlungwana	1. Amatikulu	1. Broodsnyers
2. Mqwabe	2. Port Dunford	2. Ermelo
3. Sikame	3. Hudley	3. Nooitgedaght
4. Skume		4. Rietveisrus
5. Mpaseni		5. Hamelfontein
6. Dubula		6. Davel
7. Eqwasha		7. Webbsrus
8. Mpanda		8. Midpoint
9. Kombe		9. HWN South
10. Cwaka		10. HWN North
11. Insele		11. Grootlaagte

## 1.5 Temporary Work

Not Applicable

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## Part C3

### Section 2

#### ENGINEERING

		INDEX	
Item	Description		Page
2.1	Design services and activity matrix .....		2
2.2	Employer's design.....		2
2.3	Design brief.....		2
2.4	Drawings.....		2
2.5	Design procedures.....		3

## PART C3

### Section 2

#### **ENGINEERING**

##### 2.1 Design services and activity matrix

Design and related documentation

Activity	Responsibility
Design and construction drawings (includes general layouts, cable routes, schematic diagrams, foundations, support steelwork etc). The Contractor's drawings shall also show the interface between the new wiring and the existing panel.	Contractor
As Built drawings (electrical and mechanical, for substation equipment).	Contractor
Itemised catalogue of parts.	Contractor
Preparation of instruction manuals.	Contractor

##### 2.2 Employer's design

2.2.1 Not applicable.

##### 2.3 Design brief

2.3.1 The GCB mechanism box shall be at a height suitable for operation by a person of average height standing at ground level.

2.3.2 The design shall maintain the following clearance, as per specification BBB1267:

Transmission System (kV)	Safe Clearance (m)
132	1.45

2.3.3 If the Gas circuit breaker design does not provide for the clearance stated in 2.3.1 above, a barrier built into the roof of the circuit breaker operating mechanism box shall be provided and installed by the Contractor.

2.3.4 The Contractor shall note that the equipment to be replaced is based on an existing installation, therefore the new equipment design shall cater for the interface with the existing equipment. The new equipment to be supplied by the Contractor shall be fitted within the space left by the removed (old) equipment.

2.3.5 The Contractor's design for the concrete foundations and structural steelwork shall be certified by a Professional Engineer or Technologist registered with the Engineering Council of South Africa (ECSA) in the relevant disciplines.

2.3.6 The Contractor shall design and wire a circuitry that will inhibit the local (on GCB mechanism box) closing of the circuit breaker that is on lock-out.

## 2.4 DRAWINGS

2.4.1 The requirements for drawings to be provided by the Contractor shall be in accordance with the requirements of specification CEE0224.2002.

2.4.1.1 The quantities are reflected in Bill of Quantities.

2.4.2 The following drawings are to be issued by Transnet Freight Rail:

1. CEE-TBK-27 Control circuit diagram. No volt coil protection.
2. CEE-TBK-28 Trip, lockout and indication circuit – SF6 primary circuit breaker – traction subs.
3. CEE-TBB-94 Sht 2,9&10 Control and circuit diagrams 3kV DC traction substations.
4. BBB3620 3kV DC earthing arrangement traction substations.
5. CEE-TBD-8 Earthing arrangement on 25Kv AC substation.

### 2.4.1 Drawing Procedures

2.4.1.1 All as built drawings shall be supplied in electronic format (Microstation/Acad).

2.4.1.2 The successful Contractor shall be required to submit all drawings (paper prints), within four weeks of award of tender, to the Project Manager or Supervisor for approval. No construction or manufacturing activity will be allowed prior to the associated drawings having been approved.

2.4.1.3 During the duration of the contract period, the successful Contractor will be required to inform the Project Manager or Supervisor of any changes to these drawings and will have to submit the affected drawings for approval prior to it being used on this contract.

2.4.1.4 All drawings, catalogues, instruction book and spares lists shall be in accordance with Transnet Freight Rail's specification CEE.0224.2002.

2.4.1.5 All final as built drawings shall be provided to Transnet Freight Rail within four weeks after commissioning.

2.4.1.6 Supply three sets of A3 schematic wiring diagrams in hard copy format and electronic format for approval.

2.4.1.7 All affected PCB control schematic drawings to be updated.

## 2.5 Design procedures

2.5.1 Transnet Freight Rail requires drawings, catalogues, instruction manuals and spares list for electrical equipment supplied as per specification no. CEE.0224 Issue 2002 and it's Appendix - 'Schedule of Requirements'

2.5.2 The Contractor shall supply the following drawings:

- 2.5.2.1 Two prints each of design drawings for approval by Transnet Freight Rail Contract Supervisor, prior to the commencement of work or manufacture of any equipment. This includes equipment layouts showing important dimensions and clearances, foundation designs, support steelwork designs and proposed circuits.
- 2.5.2.2 One copy of each of these must be available at the commissioning and handing over of equipment.
- 2.5.3 The term “approved” as used in the various specifications, means that the items so specified, or a fully detailed specification thereof, shall be submitted to the Transnet Freight Rail Contract Supervisor for his approval before such items are ordered or installed.

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## Part C3

### Section 6

#### ENVIRONMENTAL REQUIREMENTS

Item	Description	INDEX	Page
6.1	Scope.....		2
6.2	Supporting Specifications / manuals.....		2
6.3	Requirements for Electrical Construction Work.....		2
6.4	Disposal and Treatment of Oil and Oil Filled Circuit Breakers .....		2

## **PART C3**

### **Section 6**

#### **ENVIRONMENTAL REQUIREMENTS**

##### **6.1 Scope**

- 6.1.1 This part of particular specification covers the environmental requirements for electrical construction work.
- 6.1.2 It covers the requirements for the handling and disposal of oil and circuit breakers containing Polychlorinated Biphenyls.

##### **6.2 Supporting Specifications / Manuals**

- 6.2.1 The following generic specification and manual are applicable:-

###### **Transnet Specification**

Specification BBB2007:	Environmental guidelines and specifications for electrical construction work.
Specification E4B:	Temporary facilities for on-site accommodation.
Specification S417:	Transnet Vegetation Standard.
Specification BBC7616:	Policy and guidelines for the management of Polychlorinated Biphenyls (PCB) in Transnet Freight Rail.

###### **Transnet Manual**

A Manual and Guidelines for Management of Polychlorinated Biphenyls in Transnet Freight Rail.

##### **6.3 Requirements for Electrical Construction Work**

- 6.3.1 The Contractor shall comply with the requirements of specification BBB2007 during construction work.

##### **6.4 Disposal and Treatment of Oil and Oil Filled Circuit Breakers**

- 6.4.1 The collection, handling and disposal of oil from the Oil Circuit Breakers (OCB's) from the substations shall be done in a safe and environmentally sound manner.
- 6.4.2 Unless any equipment to be replaced containing oil is clearly certified Polychlorinated Biphenyls (PCB) free, the contractor shall test or make arrangements for the testing of the circuit breaker oil for PCB's before replacing the OCB's and submit the results to Transnet Freight Rail.
- 6.4.2.1 This will be done by first conducting preliminary screening chlorine tests and where the levels of chlorine presence are above 50ppm, further detailed PCB tests and analyses shall be conducted.
- 6.4.2.2 The units with levels of contamination less than 20ppm Chlorine shall be disposed of following the normal disposal procedure.

- 6.4.2.3 Equipment and oil with a PCB content ranging from 21 to 49 PPM is classified as 'mildly contaminated' and shall be properly identified, i.e. marked with yellow stickers.
- 6.4.2.4 Equipment and oil with a PCB content ranging from 50 to 499 PPM is classified as 'PCB contaminated' and shall be properly identified, i.e. marked with orange stickers.
- 6.4.2.5 Any units with residual PCB pollution, or oils contaminated to a level greater than 500ppm shall be treated as PCB ITEMS and labeled accordingly.
- 6.4.2.6 The above oils shall be disposed of using the approved methods stated in "Transnet specification BBC7616 for Guidelines and Management of Polychlorinated Biphenyls in Transnet Freight Rail".
- 6.4.3 The soil around the circuit breakers that has been polluted as a result of current or past leakage of oil shall be remediated after the Contractor has determined the total petroleum hydrocarbon ( tph) levels in it . Remediation of polluted soils not containing PCB's may be conducted in-situ in the case of light contamination (total petroleum hydrocarbon ( tph) < 1000 ppm). Alternative methods of bioremediation, landfarming or off-site disposal of such contaminated soils shall be considered and implemented for soil material contaminated to a concentration > 1000 tph.
- 6.4.3.1 All PCB contamination in the ground if encountered and exceeding the 500 ppm limit shall be removed and disposed of in a manner approved by Transnet Freight Rail, in line with the directives for PCB items.
- 6.4.4 In case of PCB items being identified, handling and disposal of the equipment shall be done in accordance with "Transnet specification BBC7616 for Guidelines and Management of Polychlorinated Biphenyls in Transnet Freight Rail".
- 6.4.5 The Contractor shall arrange for a registered Contractor to transport all PCB items to an approved disposal site.
- 6.4.6 Equipment and oil with PCB content above 20ppm shall be handled by a registered contractor. Those below 300ppm shall be dechlorinated, as per guidelines, before disposal.
- 6.4.7 Approved degreasing agents on concrete surfaces shall be used, if required.
- 6.4.8 The costs for the screening chlorine test and analyses of oils and soil for PCB's, the tests and analysis of soil to determine tph levels where spillages have occurred, must be furnished by the tenderers in the Bill of Quantities and Prices, Part C2.
- 6.4.8.1 The Tenderer shall provide a provisional method statement and cost for the legal disposal of PCB items, such methodology and costing becoming applicable only in the event of PCB items requiring disposal, as specified.
- 6.4.9 The Contractor shall supply 210 litre drums for the transportation of oil.
- 6.4.10 The old circuit breakers that are not contaminated shall be transported by the Contractor to the main respective depot and scrapped by Transnet Freight Rail following normal procedures. (The depots may keep old OCB parts as spare parts if deemed necessary).

# TRANSNET

S417 (1988)

## SPECIFICATION FOR VEGETATIVE EROSION CONTROL

### CONTENTS

		<u>PAGE</u>	
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<u>PART C</u>	:	GRASS PLANTING	12

**PART A - TOPSOILING AND HYDROSEEDING**

A1. **SCOPE**

This part covers soil preparation, materials and techniques required for topsoiling, the application of seeds and achievement of acceptable grass cover by the hydroseeding process.

A2. **DEFINITIONS**

Acceptable Grass Cover means that treated areas shall display hydroseeded grasses not less than 100mm high, over 80% of the area. Bare or poorly established areas not larger than 5m<sup>2</sup> will be deemed to be acceptable, provided that the length of such areas as measured down a slope does not exceed the width as measured across the slope.

Hydroseeding means the process whereby seeds, fertiliser and mulching agents are combined in suspension in a water based slurry, which is then applied from a tank through a nozzle to the prepared soil surface.

A3. **MATERIAL**

A3.1 **TOPSOIL**

Topsoil shall be free of weeds, roots, stumps, excessive clay, stones larger than 75mm, litter and extraneous matter. Naturally occurring grasses shall be retained.

A3.2 **FERTILIZER**

A3.2.1 One or more of the following fertilizers will be used:

- Single superphosphate
- 2-3-2 (22%)
- Limestone ammonium nitrate (LAN) 28%
- Calcitic agricultural lime.
- Dolomitic agricultural lime.

A3.2.2 Fertilizers shall comply with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act 36 of 1947) as amended.

A3.3 SEEDS

A3.3.1 Seed types and mixes shall be as specified by the Engineer and shall comply with the Plant Improvement Act (Act 53 of 1976) and the Plant Improvement Amendment Act (Act 10 of 1979) as amended.

A3.3.2 At least 30 days prior to the intended date of sowing, the Contractor shall provide the Engineer with samples of the required mass of each batch of each variety of seed for random germination and purity tests to be undertaken by the Department of Agricultural Economics and Marketing.

A3.3.3 Seeds shall be mixed on site under the supervision of the Engineer.

A4. PLANT

The seeding mixture consisting of seed, fertilizer and mulch shall be applied by a "hydroseeder" type distributor which shall incorporate a built-in agitator system, and be capable of even and regulated distribution at the rate of application specified in the Project Specification.

A5. CONSTRUCTION

A5.1 SOIL CONDITIONS

Soil surfaces will not necessarily be topsoiled, and may vary considerably in their organic content, growth supporting potential, and nutritional value. Growth establishment procedures shall take into account all classes of material encountered.

A5.2 TOPSOILING

A5.2.1 Soil Preparation Prior to Topsoiling

Batters to be topsoiled should be left sufficiently rough to ensure an adequate bond between the topsoil and the batter. Where this has not been achieved the Contractor shall prepare the slopes by forming horizontal ledges not less than 100mm wide and at centres of not more than 300m when measured down the slope.

A5.2.2 Selection, Loading, Hauling and Spreading of Topsoil

A5.2.2.1 Selection and stockpiling of topsoil, if required, shall be carried out as specified in the Project Specification

A5.2.2.2 Topsoil shall be loaded from designated stockpiles and hauled to the points of spreading.

A5.2.2.3 Topsoil shall be spread to an average thickness of 75mm, but shall nowhere be less than 50mm nor more than 100mm thick. Topsoil shall be worked with rakes or other suitable equipment to achieve a firm and regular surface.

A5.3 SOIL PREPARATION PRIOR TO HYDROSEEDING

A5.3.1 The Contractor shall prepare the surface of areas to be hydroseeded, whether topsoiled or not, so that eroded areas are filled and excessive quantities of stones removed from the surface.

A5.3.2 Prior to hydroseeding, excessive growth of any nature which may be detrimental to the growth and establishment of seeded grasses shall be removed at the direction of the Engineer.

A5.3.3 Where directed by the Engineer, the surface of specified slopes shall be scarified or formed into horizontal ledges not less than 100mm wide and at centres of not more than 300mm, when measured down the slope.

A5.4. APPLICATION OF FERTILIZERS

A5.4.1. Soil Analysis

The Contractor shall arrange for the chemical analysis of representative samples of soil types encountered on the site. Based on the results of the soil analysis the Engineer, in consultation with the Contractor, shall direct the use of one or more of the specified fertilizers, or as detailed in the Project Specification.

A5.4.2. Fertilizers shall be applied as follows :

- i) During the hydroseeding process at the time of seeding, where fertilizers form part of the seeding slurry.
- ii) A single maintenance application after germination.

A5.4.3. Fertilizers shall be applied uniformly, irrespective of the method of application employed by the Contractor.

A5.5. HYDROSEEDING

A5.5.1. The Contractor shall not proceed with any hydroseeding until the Engineer has approved the preparation of the area.

A5.5.2 Paper or woodfibre pulp shall be added to the seeding slurry at a rate not less than 250kg per hectare.

A5.5.3. Hydroseeding shall be such that all materials in the mix are evenly and effectively applied at the rate specified.

A5.6. ESTABLISHMENT OF GROWTH

The Contractor shall be solely responsible for any measures required to achieve acceptable grass cover as defined.

Growth establishment measures shall include remedial seeding of bare areas, repair of all erosion, removal of vegetation likely to suppress the growth of seeded grasses, and any other measures necessary to achieve acceptable grass cover as defined. No payment will be made for any material or work required for remedial work or maintenance in order to achieve acceptable grass cover.

A6. COMPLETION OF WORK

A6.1 The Contractor shall complete all seeding or planting work as early as practicable within the contract period.

A6.2 Contrary to the requirements of the E5 General Conditions of Contract, the maintenance period for vegetative erosion control works is the period required to achieve acceptable grass cover.

7. VOID

A8. MEASUREMENT AND PAYMENT

A8.1 BASIC PRINCIPLES

A8.1.1 Topsoiling

A8.1.1.1 Payment for forming of ledges as described in A5.2.1 will be made per m<sup>2</sup>.

A8.1.1.2 Selection and stockpiling of topsoil will be measured as specified in the Project Specification.

A8.1.1.3 Loading from designated stockpiles, hauling and spreading of topsoil will be measured per m<sup>2</sup> of area topsoiled as specified.

A8.1.1.4 Designated stockpiles shall be inspected to determine the work required to comply with A3.1, since no separate payment will be made for this work.

A8.2 SCHEDULED ITEMS

A8.2.1 Preparation Prior to Topsoiling by Forming Ledges (m<sup>2</sup>)

A8.2.2 Topsoiling (m<sup>2</sup>)

The rate tendered shall allow for loading topsoil from designated stockpiles, hauling and spreading, including all the work required to attain compliance with specifications.

NOTE Payment will also be made under this item for topsoiling of areas which are to be planted with sods or grass roots.

A8.2.3 Provide and Apply Fertilizers (t)

The rate tendered shall allow for provision, transport, storage and application of fertilizers, and shall include all incidental costs including provision for refertilization required for growth establishment.

Separate payment will be made for the provision and application of each specific fertilizer.

A8.2.4 Provide and Apply Seeds (kg)

The rate tendered shall allow for provision, transport, storage and application of seeds as well as all incidental costs

A8.2.5 Soil Preparation Prior to Hydroseeding (m<sup>2</sup>)  
The rate tendered shall allow for all labour and incidental costs required to prepare areas by forming ledges as specified.

A8.2.6 Hydroseeding (m<sup>2</sup>)

A8.2.6.1 The rate tendered shall allow for erosion repairs up to 300 mm deep, application of fertilizers and seeds, supply and application of pulp and materials not measured elsewhere, growth establishment as described and any incidental work required for the achievement of acceptable grass cover. The rate shall allow for all soil types encountered

A8.2.6.2 Payment for hydroseeding will be made as follows :

As a progress payment, 70% will be payable after acceptable completion of hydroseeding. The balance will be paid after achieving acceptable grass cover.

**PART B : SUPPLY, LAYING AND ESTABLISHMENT OF GRASS SODS**

B1. **SCOPE**

This part covers the provision, laying and establishment of grass sods required for landscaped areas, and for the erosion protection of slopes of cuttings and embankments.

B2. **DEFINITIONS**

Acceptable Grass Cover means that 90% of the area shall be established with living sods of the grass species specified, and that there shall be no bare patches with any dimensions larger than 150mm. Sodding shall display vigorous growth and shall achieve reasonable root penetration. The area shall be finished to the required contour and be free of weeds and erosion damage to the surface.

B3. **MATERIALS**

B3.1.1 **PLANT MATERIAL**

Nursery - grown sods shall be either *Pennisetum clandestinum* (kikuyu) or *Cynodon dactylon* (kweek), as specified or allowed by the Engineer.

The grass shall have been grown specifically for sod purposes, mowed regularly and maintained to provide an approved quality of uniformity, and sods shall be not less than 0,5m<sup>2</sup> in area.

B3.1.2 Grass sods shall be fresh and living and shall be harvested, delivered and planted within 36 hours unless otherwise authorised by the Engineer. Grass sods shall contain a minimum of 20mm of soil to ensure proper growth when planted, and shall be free of noxious weeds and diseases.

B3.1.3 Pasture or veld sods will only be accepted under exceptional circumstances, but will not be permitted for use in landscaped areas. The source and quality of pasture or veld sods shall be subject to the Engineer's approval.

B3.1.4 Sodds shall be such that they do not crumble, break or tear during handling or placing.

B3.2 **FERTILIZER**

The terms of A3.2 shall apply.

B4. PLANT

Grass sods shall be harvested by special machines manufactured for this purpose, so as to ensure a uniform thickness of sods.

B5. CONSTRUCTION

B5.1 PURPOSE OF GRASS SODDING

The establishment of sodding is required as an anti-erosion measure on slopes or in areas where immediate coverage is essential. The supply of sods and the procedures adopted for the laying and establishment thereof, shall be directed towards the rapid establishment of growth. The Contractor shall be liable for any remedial work made necessary by non-compliance with the abovementioned principles.

B5.2 SITE CONDITIONS AND ACCESS

In addition to landscaped areas, sodding may be required at bridge abutments, culverts, tunnel portals, adjacent to concrete lined drains and on the side slopes of earthworks. The Contractor shall therefore make due allowance for restricted access; and for work carried out on steep slopes and in small localised areas.

B5.3 SOIL CONDITIONS AND TOPSOIL

All conditions relevant to topsoil and the upper soil layers as described in A3.1, A5.1 and A5.2 shall be applicable to the establishment of sods, except that stones larger than 25mm and naturally occurring grasses shall be removed from the topsoil.

B5.4 SOIL PREPARATION PRIOR TO SODDING

B5.4.1 The terms of A5.3.1 and A5.3.2 shall apply mututis mutandis.

B5.4.2 The area to be sodded shall be contoured and trimmed to the required shape such that contact with the soil over the full area of the sod may be achieved.

B5.4.3 The area shall be ploughed or raked to achieve a loose surface. Ploughing of landscaped areas shall be done to a depth of not less than 100mm.

B5.4.4 Preparation of sloped earthworks shall include the repair of erosion and the work necessary for the forming of the desired surface shape in the case of vegetated downlets or sodded drains.

**Name of Certificate Holder**

ID. Nr:

have been inducted by

Inductor Contact Nr.:

Date of Induction:

At:

Valid Until:

Signed: (Inductee)      Signed: (Inductor)

Hazards you would encounter on Transnet Freight Rail's Premises

- Heavy machinery and fast moving trains (be especially careful where there are multiple tracks)!
- High Voltage Areas
- Uneven walkways
- Unmanned Level Crossings
- Noise
- Dust
- Handling and transportation of Hazardous Substances



Hazards you would encounter on Transnet Freight Rail's Premises (Continued)

Contractors and visitors are expected to follow some simple rules to keep yourself and those around you safe:

- You may not be under the influence of alcohol or drugs – alcohol tests are mandatory for all contractors
- Do not talk on a cell phone – it will distract you
- Do not stand on the railhead – step over it
- Do not climb through or underneath stationary trains – rather walk around a train, approx. 2m clear!
- No objects to be placed on the tracks – you could jam the points and cause derailments!
- Always walk alongside the tracks (minimum of 2m from the edge of the track) and not between the tracks. You may get run over by passing trains
- Vehicles must be parked well clear of tracks or as per instruction by operator
- Obey all speed limits and adjust speed according to road conditions (service roads and yards)

Hazards you would encounter on Transnet Freight Rail's Premises (Continued)

- Take extra care when crossing at level crossings!
- When exposed to noisy machinery wear hearing protection
- Beware of danger of working in elevated positions – Fall Protection Plan is to be in place (where applicable)
- Only TFR approved PPE is allowed in close proximity to the track. The wearing of Red, Green or Yellow clothing is not permitted
- Employees are not allowed to sit or lie on ballast or track when taking a rest
- When working in the veld beware of Snakes, Ticks, Bee's, Scorpions and other hidden hazards etc!!

**TRANSNET**



(REGISTRATION NO.1990/000900/06)  
**TRADING AS  
TRANSNET FREIGHT RAIL**

**ADDENDUM NO. 1  
TO THE  
SECONDARY AND GENERAL SPECIFICATIONS  
OF THE CONTRACT**

- 1) Where ever the word "Spoornet" appears in these specifications, please replace it with "Transnet Freight Rail".
- 2) Wherever reference is made to the E5(M.W.)(1996), the E5(Nov.1996) or E160 General Conditions of Contract, please refer to the Conditions of Contract of the ECC3 Contract.
- 3) Where ever the words "Technical Officer" appear in these specifications, please replace with "Supervisor".

**TRANSNET**



**TRANSNET**



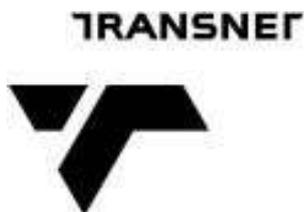
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**TRANSNET**





(REGISTRATION NO.1990/000900/06)

## **TRADING AS TRANSNET Freight Rail**

### **MINIMUM COMMUNAL HEALTH REQUIREMENTS IN AREAS OUTSIDE THE JURISDICTION OF A LOCAL AUTHORITY: TEMPORARY FACILITIES FOR CONTRACTOR'S PERSONNEL**

#### **1. CAMPS**

- 1.1 Prior to the erection of any camp, the Contractor shall submit to the Technical Officer, for his approval, details of his proposals as to the site, water supply, sanitation, and size and type of buildings. Where the site is on private land, the Contractor shall submit the written approval for the use of the site of the relevant statutory authority and of the owner and occupier of the land (as applicable).
- 1.2 Camps must not be erected on land infested with field rodents.
- 1.3 Adequate drainage shall be provided to carry off storm and waste water.
- 1.4 Buildings shall be built to a neat and orderly pattern.
- 1.5 All buildings shall have smooth, hard, impervious floors, graded to provide effective drainage and to permit washing.
- 1.6 Camps shall be maintained by the Contractor at his own expense in a clean and tidy condition. The Contractor shall take such steps as the Technical Officer and landowner/occupier may demand to prevent the creation of a nuisance.
- 1.7 When so instructed by the Technical Officer, the Contractor shall, at his own expense, erect suitable screens between the camp and any public road, thoroughfare or railway line.
- 1.8 After removal of a camp, the Contractor shall, at his own expense, restore the site to its original condition to the satisfaction of the Technical Officer and of the landowner and occupier where the site is on private land.

#### **2. HOUSING**

- 2.1 Every living room shall have cross ventilation, both constant and occasional. Where only one window is provided, it shall not be in the same wall as the door.

- 2.2 Dimensions of living rooms shall be sufficient to allow 3.5 square metres of floor area and 11 cubic metres of air space for each person over the age of 10 years. The floor area of any living room shall not be less than 7,8 square metres.
- 2.3 Flat-roofed quarters shall have a minimum roof height of 3 metres above floor level. For quarters with pitched roofs, the wall height shall be not less than 2,6 metres above the floor with a minimum height above floor of 3 metres at the top of the pitch.
- 2.4 Doors shall not be less than 2m x 0,75m and must be halved.
- 2.5 Windows of each living room shall have an area not less than one twelfth of the floor area and shall be capable of opening to at least half their full area.
- 2.6 In areas where malaria is prevalent, doors and windows must be fitted with gauze screens.
- 2.7 Cooking shelters shall comprise roofed structures, three sides of which shall be enclosed by a weatherproof material, approved by the Technical Officer to a height of at least 1m above ground level.
- 2.7.1 Sleeping quarters shall not accommodate more than 8 persons per room.
- 2.7.2 Pegboards shall be carried on metal or concrete supports and shall be separated by partitions not less than 0,4 metres high extending to within 150mm of the end of the bunk. Pegboards shall be removable for cleaning.

### 3. **WATER SUPPLY AND ABLUTION FACILITIES**

- 3.1 The Contractor shall ensure that an adequate and conveniently situated supply of potable water is provided.
- 3.2 Separate buildings for ablution facilities shall be provided. Where approval has been obtained for the housing of both males and females, separate facilities for each sex shall be provided. The proportion shall be 1 cubicle for 20 persons.
- 3.3 Waste water shall be hygienically disposed of.

### 4. **SANITATION**

- 4.1 Separate buildings for latrine facilities shall be provided. Where housing are provided for both males and females, separate facilities for each sex shall be provided. The proportions shall be at least one squatting seat for every 15 persons or less in the case of pit latrines, or one for every 10 persons or less in case of pail latrines.

Latrines shall be fly proof and sited at least 10 metres from any other building, and shall not face on any public road, thoroughfare, railway line or residential property. Pits shall not be less than 2,5 metres deep and sited not less than 120 metres from nearest underground water source.

- 4.2 Latrines shall be so constructed, situated and maintained, and night soil so disposed of as to prevent access by animals, breeding of flies, pollution of streams and domestic water supplies, and other nuisances. Where a night soil removal service is operated by a competent authority, use of such service shall be obligatory, and the use of pit latrines and atria pits will not be permitted.
- 4.3 At least one refuse bin of adequate size with close fitting lid shall be provided for each building. Refuse bins shall be emptied and cleaned out daily.
- 4.4 Labour shall be employed on camp sanitation duties on the following basis:-
- 4.4.1 Where the number of persons living at the camp is 20 or less - one unit.
- 4.4.2 For additional numbers over 20 living at the camp - one unit per 100 or part thereof.
- 4.5 Unless refuse is removed by a competent authority, it shall be disposed of in pits and covered over daily with a layer of earth or ash of sufficient thickness to prevent predations by rodents and the breeding of flies.
- 4.6 Adequate measures shall be taken against all vermin and insects responsible for the spread of disease. Any instructions of a competent health authority shall be carried out promptly and implicitly.
- 4.7 Buildings and bedboards shall be treated whenever necessary with an approved insecticide.
- 4.8 The Contractor shall permit and facilitate inspection of the camp and structures on the site by the staff of Transnet or any other competent authority, and shall comply with any reasonable request by such staff or any other competent authority to eliminate any unsanitary condition.
- 4.9 Any outbreak of infectious disease shall immediately be reported telephonically and confirmed in writing to the Technical Officer.
- 4.10 The keeping of animals of any sort is not permitted.
- 4.11 The Contractor shall have on hand at the camp the necessary tools, disinfectants and cleaning materials to maintain and clean the sanitary facilities.

## 5. **RATIONS**

Rations, where supplied by the Contractor, shall be stored in a suitable and rodent proof building with sufficient shelving.

**P02b-06 (JLH)**



(REGISTRATION NO.1990/000900/06)

## **TRADING AS TRANSNET Freight Rail**

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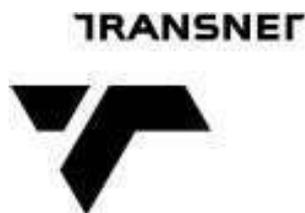
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**P02b-06 (JLH)**



**TRANSNET LIMITED**  
(Registration no. 1990/000900//06)

**SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE  
WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT  
(ACT 85 OF 1993) AND APPLICABLE REGULATIONS**

**1. General**

- 1.1 The Contractor and Transnet Limited (hereinafter referred to as "Transnet") 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 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the 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. He shall, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a Health and Safety Plan as described in the Construction Regulations, 2003 and as approved by Transnet, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations notwithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 Transnet accepts, in terms of the 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 Project Manager 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.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

**2. Definitions**

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -

- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be "**Construction Work**", which, in terms of the Construction Regulations, 2003 means any work in connection with: -
- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
  - (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
  - (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
  - (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;
- 2.3 "**competent person**" in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;
- 2.4 "**contractor**" means principal contractor and "subcontractor" means contractor as defined by the Construction Regulations, 2003.
- 2.5 "**fall protection plan**" means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;
- 2.6 "**health and safety file**" means a file, or other record in permanent form, containing the information required to be kept on site in accordance with the Act and applicable Regulations;
- 2.7 "**Health and Safety Plan**" means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or control the hazards identified;
- 2.8 "**Risk Assessment**" means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;
- 2.9 "**the Act**" means the Occupational Health and Safety Act No. 85 of 1993.

### 3. Procedural Compliance

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-
- (a) includes the demolition of a structure exceeding a height of 3 metres; or

- (b) includes the use of explosives to perform construction work; or
- (c) includes the dismantling of fixed plant at a height greater than 3m,

and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-

- (a) includes excavation work deeper than 1m; or
- (b) includes working at a height greater than 3 metres above ground or a landing.

- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, Project Manager or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing on a form similar to Annexure 2 of this Specification and deliver copies thereof to the Project Manager. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies thereof to the Project Manager.
- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and supervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexure 3, by which he personally undertakes the duties and obligations of the "Chief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the Project Manager an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Procedural compliance with Act and Regulations, as above, shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the Project Manager with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and Transnet's safety requirements and procedures.

#### **4. Special Permits**

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the Project Manager 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 permits.

## 5. Health and Safety Programme

- 5.1 The Tenderer shall, with his tender, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -
- (i) 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 Act;
  - (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the 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;
  - (iii) ensuring, as far as is reasonably practical, in terms of section 37 of the 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.
- 5.2 The Contractor's Health and Safety Programme 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.
- 5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Health and Safety programme to be applied on the site and shall include at least the following:
- (a) The identification of the risks and hazards that persons may be exposed to;
  - (b) the analysis and evaluation of the hazards identified;
  - (c) a documented Health and Safety Plan, including safe work procedures to mitigate, reduce or control the risks identified;
  - (d) a monitoring and review plan.
- 5.4 The Health and Safety Plan shall include full particulars in respect of: -
- (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
  - (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
  - (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;

- (d) the site access control measures pertaining to health and safety to be implemented;
  - (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the Project Manager with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and
  - (f) the introduction of control measures for ensuring that the Safety Plan is maintained and monitored for the duration of the Contract.
- 5.4 The Health and Safety programme shall be subject to the Project Manager'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 Project Manager's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The Project Manager or his deputy shall be allowed to attend meetings of the Contractor's safety committee as an observer.
- 5.5 The Contractor shall take reasonable steps to ensure that each subcontractor's Health and Safety Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between the them, but at least once every month.
- 5.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons.
- 5.7 The Contractor shall ensure that a copy of the Health and Safety Plan is available on site for inspection by an inspector, Project Manager, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.
- 5.8 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.
- 5.9 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.10 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 times as may be determined in the Risk Assessment.

- 5.11 The Contractor shall ensure that all visitors to a construction site undergoes health and safety induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

## **6. Fall Protection Plan**

- 6.1 In the event of the risk and hazard identification, as required in terms of clause 5.3 of this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;
- 6.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.
- 6.3 The fall protection plan shall include:-
- (a) A Risk Assessment of all work carried out from an elevated 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 elevated positions;
  - (d) the training of employees working from elevated positions; and
  - (e) the procedure addressing the inspection, testing and maintenance of all fall protection equipment.

## **7. Hazards and Potential Hazardous Situations**

The Contractor and the Project Manager shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor 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.

## **8. Health and Safety File**

- 8.1 The Contractor shall ensure that a health and safety file is opened and kept on site and shall include all documentation required as per the Act and applicable regulations, and made available to an inspector, the Project Manager, or subcontractor upon request.
- 8.2 The Contractor shall ensure that a copy of the both his Health and Safety Plan as well as any subcontractor's Health and Safety Plan is available on request to an employee, inspector, contractor or the Project Manager.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the Project Manager upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

**ANNEXURE 1**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

**Regulation 3(1) of the Construction Regulations**

**NOTIFICATION OF CONSTRUCTION WORK**

- 
- 
- 1(a) Name and postal address of principal contractor:  
\_\_\_\_\_
- (b) Name and tel. no of principal contractor's contact person:  
\_\_\_\_\_
2. Principal contractor's compensation registration number: \_\_\_\_\_
- 3.(a) Name and postal address of client:  
\_\_\_\_\_
- (b) Name and tel no of client's contact person or agent:  
\_\_\_\_\_
- 4.(a) Name and postal address of designer(s) for the project:  
\_\_\_\_\_
- (b) Name and tel. no of designer(s) contact person:  
\_\_\_\_\_
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6(1).  
\_\_\_\_\_
6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 6(2).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Exact physical address of the construction site or site office:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Nature of the construction work:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Expected commencement date: \_\_\_\_\_
10. Expected completion date: \_\_\_\_\_

11. Estimated maximum number of persons on the construction site: \_\_\_\_\_

12. Planned number of contractors on the construction site accountable to the principle contractor:

\_\_\_\_\_

13. Name(s) of contractors already chosen.

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

\_\_\_\_\_  
**Principal Contractor**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Client**

\_\_\_\_\_  
**Date**

\* THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

\* **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

**ANNEXURE 2**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**SECTION/REGULATION:** \_\_\_\_\_

**REQUIRED COMPETENCY:** \_\_\_\_\_

In terms of \_\_\_\_\_ I, \_\_\_\_\_  
representing the Employer) do hereby appoint \_\_\_\_\_

As the Competent Person on the premises at \_\_\_\_\_  
(physical address) to assist in compliance with the Act and the applicable Regulations.

Your designated area/s is/are as follows :-

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

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

---

**ACCEPTANCE OF DESIGNATION**

I, \_\_\_\_\_ do hereby accept this Designation and acknowledge that I  
understand the requirements of this appointment.

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

**ANNEXURE 3**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**DECLARATION**

In terms of the above Act I, \_\_\_\_\_ am personally assuming the duties and obligations as Chief Executive Officer, defined in Section 1 of the Act and in terms of Section 16(1), I will, as far as is reasonably practicable, ensure that the duties and obligations of the Employer as contemplated in the above Act are properly discharged.

*Signature :-* \_\_\_\_\_

*Date :* \_\_\_\_\_

**ANNEXURE 4**

**(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF TRANSNET LIMITED)**

**SITE ACCESS CERTIFICATE**

Access to : \_\_\_\_\_ (Area)  
Name of Contractor/Builder :- \_\_\_\_\_  
Contract/Order No.: \_\_\_\_\_

The contract works site/area described above are made available to you for the carrying out of associated works

In terms of your contract/order with  
(company) \_\_\_\_\_

Kindly note that you are at all times responsible for the control and safety of the Works Site, and for persons under your control having access to the site.

As from the date hereof you will be responsible for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, and all conditions of the Contract pertaining to the site of the works as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof.

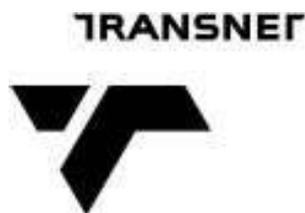
Signed : \_\_\_\_\_ Date : \_\_\_\_\_  
*PROJECT MANAGER*

**ACKNOWLEDGEMENT OF RECEIPT**

Name of Contractor/Builder :- \_\_\_\_\_ I,  
\_\_\_\_\_ do hereby acknowledge and accept the duties  
and obligations in respect of the Safety of the site/area of Work in terms of the Occupational Health and  
Safety Act; Act 85 of 1993.

Name : \_\_\_\_\_ Designation : \_\_\_\_\_

Signature : \_\_\_\_\_ Date : \_\_\_\_\_



**TRANSNET SOC LTD**  
(Registration no. 1990/000900//06)

**SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE  
WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT  
(ACT 85 OF 1993) AND APPLICABLE REGULATIONS**

**1. General**

- 1.1 The Contractor and Transnet SOC Ltd (hereinafter referred to as "Transnet") 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 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the 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. He shall, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a Health and Safety Plan as described in the Construction Regulations, 2003 and as approved by Transnet, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations notwithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 Transnet accepts, in terms of the 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 Project Manager 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.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

**2. Definitions**

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -

- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be "**Construction Work**", which, in terms of the Construction Regulations, 2003 means any work in connection with: -
- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
  - (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
  - (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
  - (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;
- 2.3 "**competent person**" in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;
- 2.4 "**contractor**" means principal contractor and "subcontractor" means contractor as defined by the Construction Regulations, 2003.
- 2.5 "**fall protection plan**" means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;
- 2.6 "**health and safety file**" means a file, or other record in permanent form, containing the information required to be kept on site in accordance with the Act and applicable Regulations;
- 2.7 "**Health and Safety Plan** " means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or control the hazards identified;
- 2.8 "**Risk Assessment**" means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;
- 2.9 "**the Act**" means the Occupational Health and Safety Act No. 85 of 1993.

### 3. Procedural Compliance

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-
- (a) includes the demolition of a structure exceeding a height of 3 metres; or

- (b) includes the use of explosives to perform construction work; or
- (c) includes the dismantling of fixed plant at a height greater than 3m,

and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-

- (a) includes excavation work deeper than 1m; or
- (b) includes working at a height greater than 3 metres above ground or a landing.

- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, Project Manager or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing on a form similar to Annexure 2 of this Specification and deliver copies thereof to the Project Manager. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies thereof to the Project Manager.
- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and supervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexure 3, by which he personally undertakes the duties and obligations of the "Chief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the Project Manager an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Procedural compliance with Act and Regulations, as above, shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the Project Manager with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and Transnet's safety requirements and procedures.

#### **4. Special Permits**

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the Project Manager 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 permits.

## 5. Health and Safety Programme

- 5.1 The Tenderer shall, with his tender, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -
- (i) 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 Act;
  - (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the 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;
  - (iii) ensuring, as far as is reasonably practical, in terms of section 37 of the 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.
- 5.2 The Contractor's Health and Safety Programme 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.
- 5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Health and Safety programme to be applied on the site and shall include at least the following:
- (a) The identification of the risks and hazards that persons may be exposed to;
  - (b) the analysis and evaluation of the hazards identified;
  - (c) a documented Health and Safety Plan, including safe work procedures to mitigate, reduce or control the risks identified;
  - (d) a monitoring and review plan.
- 5.4 The Health and Safety Plan shall include full particulars in respect of: -
- (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
  - (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
  - (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;

- (d) the site access control measures pertaining to health and safety to be implemented;
  - (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the Project Manager with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and
  - (f) the introduction of control measures for ensuring that the Safety Plan is maintained and monitored for the duration of the Contract.
- 5.4 The Health and Safety programme shall be subject to the Project Manager'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 Project Manager's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The Project Manager or his deputy shall be allowed to attend meetings of the Contractor's safety committee as an observer.
- 5.5 The Contractor shall take reasonable steps to ensure that each subcontractor's Health and Safety Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between the them, but at least once every month.
- 5.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons.
- 5.7 The Contractor shall ensure that a copy of the Health and Safety Plan is available on site for inspection by an inspector, Project Manager, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.
- 5.8 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.
- 5.9 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.10 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 times as may be determined in the Risk Assessment.

- 5.11 The Contractor shall ensure that all visitors to a construction site undergoes health and safety induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

## **6. Fall Protection Plan**

- 6.1 In the event of the risk and hazard identification, as required in terms of clause 5.3 of this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;
- 6.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.
- 6.3 The fall protection plan shall include:-
- (a) A Risk Assessment of all work carried out from an elevated 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 elevated positions;
  - (d) the training of employees working from elevated positions; and
  - (e) the procedure addressing the inspection, testing and maintenance of all fall protection equipment.

## **7. Hazards and Potential Hazardous Situations**

The Contractor and the Project Manager shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor 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.

## **8. Health and Safety File**

- 8.1 The Contractor shall ensure that a health and safety file is opened and kept on site and shall include all documentation required as per the Act and applicable regulations, and made available to an inspector, the Project Manager, or subcontractor upon request.
- 8.2 The Contractor shall ensure that a copy of the both his Health and Safety Plan as well as any subcontractor's Health and Safety Plan is available on request to an employee, inspector, contractor or the Project Manager.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the Project Manager upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

**ANNEXURE 1**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

**Regulation 3(1) of the Construction Regulations**

**NOTIFICATION OF CONSTRUCTION WORK**

- 
- 
- 1(a) Name and postal address of principal contractor:  
\_\_\_\_\_
- (b) Name and tel. no of principal contractor's contact person:  
\_\_\_\_\_
2. Principal contractor's compensation registration number: \_\_\_\_\_
- 3.(a) Name and postal address of client:  
\_\_\_\_\_
- (b) Name and tel no of client's contact person or agent:  
\_\_\_\_\_
- 4.(a) Name and postal address of designer(s) for the project:  
\_\_\_\_\_
- (b) Name and tel. no of designer(s) contact person:  
\_\_\_\_\_
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6(1).  
\_\_\_\_\_
6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 6(2).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Exact physical address of the construction site or site office:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Nature of the construction work:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Expected commencement date: \_\_\_\_\_
10. Expected completion date: \_\_\_\_\_

11. Estimated maximum number of persons on the construction site: \_\_\_\_\_

12. Planned number of contractors on the construction site accountable to the principle contractor:

\_\_\_\_\_

13. Name(s) of contractors already chosen.

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

\_\_\_\_\_  
**Principal Contractor**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Client**

\_\_\_\_\_  
**Date**

- \* THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.
- \* **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

**ANNEXURE 2**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**SECTION/REGULATION:** \_\_\_\_\_

**REQUIRED COMPETENCY:** \_\_\_\_\_

In terms of \_\_\_\_\_ I, \_\_\_\_\_  
representing the Employer) do hereby appoint \_\_\_\_\_

As the Competent Person on the premises at \_\_\_\_\_  
(physical address) to assist in compliance with the Act and the applicable Regulations.

Your designated area/s is/are as follows :-

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

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

**ACCEPTANCE OF DESIGNATION**

I, \_\_\_\_\_ do hereby accept this Designation and acknowledge that I  
understand the requirements of this appointment.

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

**ANNEXURE 3**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**DECLARATION**

In terms of the above Act I, \_\_\_\_\_ am personally assuming the duties and obligations as Chief Executive Officer, defined in Section 1 of the Act and in terms of Section 16(1), I will, as far as is reasonably practicable, ensure that the duties and obligations of the Employer as contemplated in the above Act are properly discharged.

*Signature :-* \_\_\_\_\_

*Date :* \_\_\_\_\_

**ANNEXURE 4**

**(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF TRANSNET SOC LTD)**

**SITE ACCESS CERTIFICATE**

Access to : \_\_\_\_\_ (Area)  
Name of Contractor/Builder :- \_\_\_\_\_  
Contract/Order No.: \_\_\_\_\_

The contract works site/area described above are made available to you for the carrying out of associated works

In terms of your contract/order with  
(company) \_\_\_\_\_

Kindly note that you are at all times responsible for the control and safety of the Works Site, and for persons under your control having access to the site.

As from the date hereof you will be responsible for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, and all conditions of the Contract pertaining to the site of the works as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof.

Signed : \_\_\_\_\_ Date : \_\_\_\_\_  
**PROJECT MANAGER**

**ACKNOWLEDGEMENT OF RECEIPT**

Name of Contractor/Builder :- \_\_\_\_\_ I,  
\_\_\_\_\_ do hereby acknowledge and accept the duties  
and obligations in respect of the Safety of the site/area of Work in terms of the Occupational Health and  
Safety Act; Act 85 of 1993.

Name : \_\_\_\_\_ Designation : \_\_\_\_\_

Signature : \_\_\_\_\_ Date : \_\_\_\_\_



**TRANSNET SOC LTD**  
(Registration no. 1990/000900//06)

**SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE  
WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT  
(ACT 85 OF 1993) AND APPLICABLE REGULATIONS**

**1. General**

- 1.1 The Contractor and Transnet SOC Ltd (hereinafter referred to as "Transnet") 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 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the 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. He shall, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a Health and Safety Plan as described in the Construction Regulations, 2003 and as approved by Transnet, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations notwithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 Transnet accepts, in terms of the 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 Project Manager 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.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

**2. Definitions**

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -

- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be "**Construction Work**", which, in terms of the Construction Regulations, 2003 means any work in connection with: -
- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
  - (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
  - (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
  - (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;
- 2.3 "**competent person**" in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;
- 2.4 "**contractor**" means principal contractor and "subcontractor" means contractor as defined by the Construction Regulations, 2003.
- 2.5 "**fall protection plan**" means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;
- 2.6 "**health and safety file**" means a file, or other record in permanent form, containing the information required to be kept on site in accordance with the Act and applicable Regulations;
- 2.7 "**Health and Safety Plan**" means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or control the hazards identified;
- 2.8 "**Risk Assessment**" means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;
- 2.9 "**the Act**" means the Occupational Health and Safety Act No. 85 of 1993.

### 3. Procedural Compliance

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-
- (a) includes the demolition of a structure exceeding a height of 3 metres; or

- (b) includes the use of explosives to perform construction work; or
- (c) includes the dismantling of fixed plant at a height greater than 3m,

and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-

- (a) includes excavation work deeper than 1m; or
- (b) includes working at a height greater than 3 metres above ground or a landing.

- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, Project Manager or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing on a form similar to Annexure 2 of this Specification and deliver copies thereof to the Project Manager. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies thereof to the Project Manager.
- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and supervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexure 3, by which he personally undertakes the duties and obligations of the "Chief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the Project Manager an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Procedural compliance with Act and Regulations, as above, shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the Project Manager with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and Transnet's safety requirements and procedures.

#### **4. Special Permits**

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the Project Manager 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 permits.

## 5. Health and Safety Programme

- 5.1 The Tenderer shall, with his tender, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -
- (i) 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 Act;
  - (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the 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;
  - (iii) ensuring, as far as is reasonably practical, in terms of section 37 of the 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.
- 5.2 The Contractor's Health and Safety Programme 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.
- 5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Health and Safety programme to be applied on the site and shall include at least the following:
- (a) The identification of the risks and hazards that persons may be exposed to;
  - (b) the analysis and evaluation of the hazards identified;
  - (c) a documented Health and Safety Plan, including safe work procedures to mitigate, reduce or control the risks identified;
  - (d) a monitoring and review plan.
- 5.4 The Health and Safety Plan shall include full particulars in respect of: -
- (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
  - (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
  - (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;

- (d) the site access control measures pertaining to health and safety to be implemented;
  - (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the Project Manager with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and
  - (f) the introduction of control measures for ensuring that the Safety Plan is maintained and monitored for the duration of the Contract.
- 5.4 The Health and Safety programme shall be subject to the Project Manager'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 Project Manager's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The Project Manager or his deputy shall be allowed to attend meetings of the Contractor's safety committee as an observer.
- 5.5 The Contractor shall take reasonable steps to ensure that each subcontractor's Health and Safety Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between the them, but at least once every month.
- 5.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons.
- 5.7 The Contractor shall ensure that a copy of the Health and Safety Plan is available on site for inspection by an inspector, Project Manager, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.
- 5.8 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.
- 5.9 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.10 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 times as may be determined in the Risk Assessment.

- 5.11 The Contractor shall ensure that all visitors to a construction site undergoes health and safety induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

## **6. Fall Protection Plan**

- 6.1 In the event of the risk and hazard identification, as required in terms of clause 5.3 of this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;
- 6.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.
- 6.3 The fall protection plan shall include:-
- (a) A Risk Assessment of all work carried out from an elevated 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 elevated positions;
  - (d) the training of employees working from elevated positions; and
  - (e) the procedure addressing the inspection, testing and maintenance of all fall protection equipment.

## **7. Hazards and Potential Hazardous Situations**

The Contractor and the Project Manager shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor 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.

## **8. Health and Safety File**

- 8.1 The Contractor shall ensure that a health and safety file is opened and kept on site and shall include all documentation required as per the Act and applicable regulations, and made available to an inspector, the Project Manager, or subcontractor upon request.
- 8.2 The Contractor shall ensure that a copy of the both his Health and Safety Plan as well as any subcontractor's Health and Safety Plan is available on request to an employee, inspector, contractor or the Project Manager.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the Project Manager upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

**ANNEXURE 1**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

**Regulation 3(1) of the Construction Regulations**

**NOTIFICATION OF CONSTRUCTION WORK**

- 
- 
- 1(a) Name and postal address of principal contractor:  
\_\_\_\_\_
- (b) Name and tel. no of principal contractor's contact person:  
\_\_\_\_\_
2. Principal contractor's compensation registration number: \_\_\_\_\_
- 3.(a) Name and postal address of client:  
\_\_\_\_\_
- (b) Name and tel no of client's contact person or agent:  
\_\_\_\_\_
- 4.(a) Name and postal address of designer(s) for the project:  
\_\_\_\_\_
- (b) Name and tel. no of designer(s) contact person:  
\_\_\_\_\_
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6(1).  
\_\_\_\_\_
6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 6(2).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Exact physical address of the construction site or site office:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Nature of the construction work:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Expected commencement date: \_\_\_\_\_
10. Expected completion date: \_\_\_\_\_

11. Estimated maximum number of persons on the construction site: \_\_\_\_\_

12. Planned number of contractors on the construction site accountable to the principle contractor:

\_\_\_\_\_

13. Name(s) of contractors already chosen.

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

\_\_\_\_\_  
**Principal Contractor**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Client**

\_\_\_\_\_  
**Date**

\* THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

\* **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

**ANNEXURE 2**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**SECTION/REGULATION:** \_\_\_\_\_

**REQUIRED COMPETENCY:** \_\_\_\_\_

In terms of \_\_\_\_\_ I, \_\_\_\_\_  
representing the Employer) do hereby appoint \_\_\_\_\_

As the Competent Person on the premises at \_\_\_\_\_  
(physical address) to assist in compliance with the Act and the applicable Regulations.

Your designated area/s is/are as follows :-

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

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

---

**ACCEPTANCE OF DESIGNATION**

I, \_\_\_\_\_ do hereby accept this Designation and acknowledge that I  
understand the requirements of this appointment.

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

**ANNEXURE 3**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**DECLARATION**

In terms of the above Act I, \_\_\_\_\_ am personally assuming the duties and obligations as Chief Executive Officer, defined in Section 1 of the Act and in terms of Section 16(1), I will, as far as is reasonably practicable, ensure that the duties and obligations of the Employer as contemplated in the above Act are properly discharged.

*Signature :-* \_\_\_\_\_

*Date :* \_\_\_\_\_

**ANNEXURE 4**

**(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF TRANSNET SOC LTD)**

**SITE ACCESS CERTIFICATE**

Access to : \_\_\_\_\_ (Area)  
Name of Contractor/Builder :- \_\_\_\_\_  
Contract/Order No.: \_\_\_\_\_

The contract works site/area described above are made available to you for the carrying out of associated works

In terms of your contract/order with  
(company) \_\_\_\_\_

Kindly note that you are at all times responsible for the control and safety of the Works Site, and for persons under your control having access to the site.

As from the date hereof you will be responsible for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, and all conditions of the Contract pertaining to the site of the works as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof.

Signed : \_\_\_\_\_ Date : \_\_\_\_\_  
**PROJECT MANAGER**

**ACKNOWLEDGEMENT OF RECEIPT**

Name of Contractor/Builder :- \_\_\_\_\_ I,  
\_\_\_\_\_ do hereby acknowledge and accept the duties  
and obligations in respect of the Safety of the site/area of Work in terms of the Occupational Health and  
Safety Act; Act 85 of 1993.

Name : \_\_\_\_\_ Designation : \_\_\_\_\_

Signature : \_\_\_\_\_ Date : \_\_\_\_\_

## Occupational Health and Safety Plan

Company name: \_\_\_\_\_

Project name: \_\_\_\_\_

---

Includes Environmental, Occupational Health and Safety and Quality Management (SHEQ)

### CONTENT

1. Project Details
2. Policy Statement
3. Objectives
4. Common Vocabulary
5. Legislation
6. Statutory Obligations
7. Project Management
8. Incident Management
9. Logbooks and Registers
10. Risk Management
11. Education and Training
12. Emergency Planning – Evacuation plan
13. Environment
14. Ergonomics
15. Health and Safety Communications
16. Safe working procedures
17. Personal Protective Equipment and Clothing
18. Project security
19. Implementation Costs

**Title.**

**Occupational Health and Safety Plan**

This health and safety plan has been prepared in term of the Occupational Health and Safety Act 1993 (Act No 85 of 1993) and Regulations Construction Regulation 5. (1).

This Health and Safety Plan will be revised as and when additions, alterations etc are communicated to us by the Client, his Agent or the Architect / Designer or the conditions of the contract dictate.

**1. PROJECT DETAILS**

**1.1. Project Name:**

Physical address:

Contact Details:

Client name:

Postal address:

P O Box

Contact person - Name:

Contact No:

Telephone –

Facsimile –

Cellular No:

Email

**1.2. Agent:**

Company name:

Postal address:

Contact person - Name:

Contact No:

Telephone –

Facsimile –

Cellular No:

Email

**1.3. Architect.**

Company name:

Postal Address:

P O Box

Contact person:

Postal address:

P O Box

Contact No:

Telephone –

Facsimile –

Cellular:

Email:

**1.4. Principle Contractor**

Company name:

Postal Address:

P O Box

**1.4.1. Project Manager.**

Name:

Contact No:

Telephone –

Cellular:

Assignee Sect 16(2)

Facsimile

Email

**1.4.2. Construction Work Supervisor:**

Name:

Contact No:

Telephone

Cellular telephone No:

Construction Regulation 6. (1)

Facsimile

**1.5. Scope of work**

Doors

Electrical installation – re-wiring

Glazing

Granite tops

Plastering

Plumbing and drainage

Shop fittings

Softs, curtains etc

Tiling

**NB Where there is construction work in progress with other personnel in the immediate vicinity activities must be co-ordinated by the Principle Contractor and the other Contractors.**

1.6. Duration of contract:                      Start –                      Expected completion –

1.7. Emergency Telephone Numbers:

An emergency telephone number list should be prominently displayed adjacent to the telephone  
The contents of this list is flexible and the following is given as a guide –

**EMERGENCY TELEPHONE NUMBERS**

Service	Name	Business	After Hours
i Ambulance:			
ii Doctor:			
iii. Hospital:			
iv. Fire Department:			
v. S.A. Police Services:		10111	
vi. Department of Labour:			
vii. Compensation Insurer			
vii.a COID – Commissioner			
vii.b. FEMA			
Project Manager:			
Safety Advisors:			
Telephone			
Facsimile			
Email			



## DEPARTMENT OF LABOUR

### Provincial Office

Department of Labour:

Contact No:

## OCCUPATIONAL HEALTH AND SAFETY

### 2. Policy statement

The Company is committed to providing a safe and healthy working environment and this occupational health and safety plan documents the action that will be implemented.

We acknowledge that as the Principle Contractor we have both a legal and moral obligation to as far as is reasonable and practicable to develop a realistic Health and Safety plan making due reference to the Clients Health and Safety Specification.

We further accept that we must ensure that the relevant legislation is complied with and that all reasonable and practicable steps are taken by all Contractors to provide a safe and healthy environment for persons to work in and that the public are adequately protected.

An independent health and safety advisor will conduct a monthly legal compliance audit to ascertain the level of adherence with statutory requirements, company policy and rules including Occupational Health and Safety, Environmental and Quality standards.

### 3. Objective.

To complete the project within the budget in respect of finance and time, to an acceptable quality and with no injuries to employees or other persons.

The specific purpose is to achieve and maintain realistic and sustainable International and locally acceptable standards. A ZERO tolerance attitude towards incidents and non-compliance of prescribed quality and workmanship will be adopted. Deviations will be investigated and the appropriate corrective action must be implemented.

NB This Specification will be imposed on all Contractors and their employees working on this project.

### 4. Common Vocabulary (COMVOC)

#### Terminology

- |  |           |
|--|-----------|
| 4.1. Basic Conditions of Employment Act 1997 (Act No 75 of 1997)                       | BCEA      |
| 4.2. Compensation for Occupational Injuries and Diseases Act 1993 (Act N0 130 of 1993) | COIDA     |
| 4.3. Department of Labour  | DoL       |
| 4.4. Department of Labour – Inspection and Enforcement Services                        | DoL (IES) |
| 4.5. Federated Employers Mutual Assurance Company Limited                              | FEMA      |
| 4.6. National Building Regulations and Standards Act 1997 (Act No 103 of 1997)         | NBR&S     |
| 4.7. Occupational Health and Safety Act 1993 (Act No 85 of 1993) and Regulations       | OH&SA     |
| 4.8. Occupational Health & Safety Act 1993 Construction Regulations, 2003              | CR        |
| 4.9. Provincial Director   | PD        |

#### Abbreviation

### 5. Legislation

#### Definitions:

“client” the person for whom any construction work is performed,

#### Legislation

CR 4. (1)

“agent” means any person, appointed in writing to represents the Client,

CR 4 (5)

“architect / Designer” a person who prepares, checks, prepares or assists with a design,

CR

“competent person” a person with the knowledge, training, experience and qualification specific to the work or task being performed. Where there is, and he/she has the appropriate SAQA qualification,

CR

“construction Safety Officer” a competent person in relation to occupational health and safety in the construction industry,	CR
“Contractor” an employer who performs construction work,	CR
“ergonomics” the application of scientific information to optimise human well-being and performance,	CR
“fall prevention plan” a documented plan to eliminate or reduce the risk of falling,	CR
“hazard assessment” the analysis of all existing or potential hazard associated with the work being or to be performed.	
“hazard identification” the identification of existing or known hazards that is normally associated with the work being or to be performed,	CR
“health and safety file” a permanent record of the health and safety requirements prescribed in these regulations,	CR
“health and safety plan” a documented plan, including safe work procedures to mitigate, remove, reduce or eliminate the hazards identified,	CR
“health and safety specification” means a documented specification of the health and safety requirements for the tasks to be performed safely,	CR
“medical certificate of fitness” a certificate valid for one year issued by an occupational health practitioner registered with the Health Professional Council of South Africa,	CR
“method statement” the documented procedure to perform the task as reasonably and practicably safe,	CR
“national building regulations” means the regulations made in terms of section 17(1) of the NBR and BS Act, 1997 (Act No 103 of 1997).	
“principle Contractor” an employer who performs construction work appointed in writing by the Client or his appointed Agent,	CR
“professional engineer or professional certificated engineer” means any person holding registration as either a Professional Engineer or Professional certificated Engineer under the Engineering Professions Act, 2000,	CR
“provincial director” means the Provincial Director as defined in Section 1 of the General Administration Regulations under the Act,	CR
“risk assessment” a programme to determine any risks associated with a task and the to identify the steps to remove, reduce or control such hazard,	CR
“SABS – 085” the code of practice – “Design, erection, use and inspection of Access Scaffolding”,	CR
“SABS – 0400” the code of practice for the application of National Building Regulations,	CR
“SABS EN 1808 and SABS 1903” the code of practice entitled “safety requirements on suspended access equipment design calculations, stability criteria, construction – tests”,	CR

“The Act” means the Occupational Health and Safety Act 1993 (Act No 85 of 1993), CR

“construction Vehicle” a vehicle used for means of conveyance for transporting persons or material or both as the case may be, both on and off the construction site for the purpose of performing construction work, CR

“excavation” means any man – made cavity, trench, pit or depression formed by cutting, digging or scooping, CR

“fall prevention equipment” means equipment used to prevent persons from falling from an elevated position, CR

“roof apex height” means the dimensional height in meters measured from the lowest ground level abutting any part of a building to the highest point of the roof, CR

“scaffold” means any temporary elevated platform and supporting structure used for providing access to and supporting workmen or material or both, CR

“structure” any building, steel or reinforced concrete structure, railway line, or siding, bridge, waterworks, reservoir or pipeline, cable, sewer, sewage works, fixed vessel, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, batching plant, pylon, surface and underground tanks, earth retaining structures or any structure designed to preserve or alter any natural feature, and any other similar structure;

- (a) any formwork, false work, scaffold or other structure designed or used to provide support or means of access during construction work; or
- (b) any fixed plant in respect of work, which includes the installation, commissioning, decommissioning or dismantling and where any such work involves a risk to persons falling 2 metres or more. C R

## 6. Statutory Obligations

<b>Description</b>	<b>Legislation</b>
<p>6.1. Basic Conditions of Employment Act</p> <p>The relevant sections are to be complied with special attention to at least the following – Working hours, Conditions of employment and Remuneration, Termination of employment, Employment of child labour prohibited.</p>	BCE
<p>6.2. Compensation for Occupational Injuries and Diseases Act 1993 (Act No 130 of 1993)</p> <p>The Act provides for compensation for health conditions, death, diseases and or injuries that arises out of and in the course of an employee’s duties. All employers-Principle Contractor and Contractors must register with a compensation insurer – either COIDA or FEMA. They must be in good standing – have proof of having paid their current assessment - in the form of either a receipt of payment or a letter of good standing from their compensation insured prior to commencing work on the project with a copy on Site.</p>	COIDA
<p>6.3. Occupational Health and Safety Act 1993 (Act No. 85 of 1993)</p> <p>The OH&amp;SA is the primary law regulating occupational health and safety matters. The Act is a framework Act that provides for the development of detailed rules and standards through regulation. As a framework, the Act prescribes that -</p> <ul style="list-style-type: none"> <li>(a) the employer must provide and maintain a safe and healthy working environment for his employees and any person, who may enter onto the premises,</li> <li>(b) the duties of employers to their employees, employees to their employer and suppliers to the employer and</li> <li>(c) the “reasonable man” approach by the employer in decisions concerning occupational health and safety,</li> </ul>	OH&SA

- (d) the management, application and enforcement of the Act and regulations are the responsibility of the employer i.e. be he the appointed agent where applicable, Project Managers, each principle Contractor and Contractor.
- (e) each principle Contractor and Contractor shall have a copy of the Act which must be available on site at all times. Employees are to be allowed reasonable access to the Act during normal working hours.

NB Interpretation

**Where there is any question as to the interpretation of any legislation and an agreement cannot be reached the matter is to be escalated from Contractor to Principle Contractor to the client. Should the matter still not be resolved it needs to be referred to the Provincial Director – Department of Labour.**

## 7. Project Management

Description	By whom	Legislation
7.1. Notification of Construction Work.	Principle Contractor	CR 3.1
7.2. Health and Safety Specification The Health and Safety Specification from the Client must be referred to when preparing this Health and Safety Plan.	Client to provide.	CR 4. (1)(a)
7.3. Health and Safety Plan This Health and Safety Plan reflect the procedure that will be implemented to ensure legal compliance during Construction Work.	Contractor	CR 5. (1)
7.4. Health and Safety File All documentation – minutes of health and safety committee meetings, risk identifications / assessments, legal compliance audits, induction and other training including service records of equipment and machinery etc must be included in the file.	Contractor	CR 5. (7)
7.5. Agreement with Mandatory A written agreement will be entered into between the Client and the Agent, the Agent and each Contractor.	Client / Agent / Principle and Contractor	Act Sec 37(2)
7.6. Appointment of each Contractor by the Agent.		C R 5 (3) (b)
7.7. Organisation chart		
7.7.1. Assignment of Duties Mr _____ is assigned the duty of ensuring that the requirements of the Act and Regulations and this Health and Safety Plan are complied with during the Construction Work.	Contracts Manager	Act Sec 16(2)
7.7.2. Construction Supervisor Mr _____ is appoint, in writing a competent employee to supervise the day-to- day construction work on the project. The supervisor will manage and control all construction activities in the absence of the Sect 16(2) assignee.	Site Agent	CR 6. (1)
7.7.3. Sub-ordinate Construction Supervisor. Mr _____ is appointed to be in control of the project in the absence of the Site agent appointed in terms of Construction Regulation 6. 1. <b>NB Under no circumstances may a Contractor leave employees on the site unless there is a competent construction work supervisor present.</b>		CR 6. (2)
7.7.4. Construction Safety Officer Mr _____ has been appointed a part – time construction safety officer for the duration of the project.	Part-time/Full-time	CR 6. (6)

7.7.5. Contractors

CR 5. (3)(b)

An up dated list of Contractors will be kept and maintained on Site.

Company:

Activity:

Address

Contact person:

Contact numbers: Telephone –  
Cellular –

Facsimile –  
Email:

Company:

Activity:

Address: P O Box

Contact person:

Contact numbers: Telephone -  
Cellular -

Facsimile  
Email:

Company:

Activity:

Address: P O Box

Contact person:

Contact numbers: Telephone -  
Cellular –

Facsimile –  
Email:

Company:

Activity:

Address: P O Box

Contact person:

Contact numbers: Telephone –  
Cellular –

Facsimile –  
Email

Company:

Activity:

Address: P O Box

Contact person:

Contact numbers: Telephone –  
Cellular –

Facsimile -  
Email:

Company:

Activity:

Address: P O Box

Contact person:

Contact numbers: Telephone -  
Cellular –

Facsimile  
Email:

Company:

Activity:

Address: P O Box

Contact person:

Contact numbers: Telephone –  
Cellular –

Facsimile –  
Email:

Company:

Activity:

Address: P O Box 1254 –

Contact person:

Contact numbers: Telephone –  
Cellular –

Facsimile  
Email:

Every Contractor is responsible to ensure that his employees comply with the applicable legislation and this health and safety plan.

NB: A section 37(2) Agreement with Mandatory must be entered into between the Contractors and the principle Contractor.



**NB** Contractor who contracts out construction work. Where a Contractor contracts construction work out to another Contractor he becomes the Principle Contractor and a section 37(2) agreement must be entered into.

7.7.6. Designation of the Health and Safety Representative / s Act sect 18

Mr \_\_\_\_\_ is a designated health and safety representative.

He will perform his prescribed duties in his area of responsibility. Act sect 18(1) (g)

7.7.7. Appointment as the Risk Assessor / Facilitator. C R 7(1)

Mr \_\_\_\_\_ is appointed to identify and record the risks associated with tasks being or that will be performed. These assessments must be reviewed as and when necessary.

7.7.8. Scaffold Inspector:

C R 14(2)

Mr \_\_\_\_\_ is appointed for this project.

Scaffolds must be inspected as prescribed and the findings reflected in the register provided.

## 8. Incident Management – Occupational Health and Safety

### 8.1. Incidents and or injuries

A policy of ZERO tolerance is the target for the project. Every thing reasonable and practicable must be adopted and actively implemented to prevent any incident or injury. Every possible danger or hazard must be identified, documented, analysed and the appropriate action to mitigate and or reduce them implemented. The necessary training of employees must be identified and introduced.

**TARGET - NO FATAL OR DISABLING INJURIES**

Report to inspector regarding certain incidents

Sect 24

Each incident, which occurs at work or that, arises out of or in the course of his employment that could either result in the employee's death that he loses a limb or part of a limb, becomes unconscious or that he is unable to continue with his normal duties for a period of 14 days must be reported to the relevant Provincial Director of Labour.

8.1.1. no person shall without the permission of an inspector, in the event of an incident described in (1) above disturb the site –

NB Although incidents, which occur on a public road or that, are aviation related must be reported if it arose out of and in the course of the employee's employment.

**Domestic incidents are excluded.**

Definitions.

**Accident**

COID Def

Means an accident arising out of and in the course of an employee's employment and resulting in a personal injury, illness or the death of the employee.

**Occupational disease**

Means any disease contemplated in section 65(1) (a) or (b). NB It includes conditions resulting from exposure to items either used and or exposed to in work place.

**Occupational injury**

Means any personal injury sustained as a result of an accident.

Classifications.

Fatal - Where the employee dies.

Disabling - When an employee cannot continue to perform the duty he was employed for.

Lost time incident - When an employee does not return to perform the work he was employed for on the next normal working day.

Disabling Lost Time - When an employee sustains an injury on duty and does not return to perform the duties he was employed to do on the next normal working day.

Medical treatment incident - When an employee sustains an injury at work and requires medical – more than first aid treatment i.e. medical, surgical, hospital or skilled nursing services.

First Aid case - Where the wound is treated from the contents of a first aid box

Disabling Lost Time Injury Frequency Rate (DIFR) It is the number of disabling injuries, including a death multiplied by 1 million (1,000,000) divided by the total number of man-hours worked by all employees on the project for a specific month or the project to-date.

$$\text{DIFR} = \frac{\text{No of disabling lost time injuries} \times 1,000,000}{\text{Total man-hours work for the period under review}}$$

#### 8.1.2. Reporting.

An incident must be reported to the relevant Provincial Director and on the prescribed W.CL 2(E) document and within the prescribed time frame i.e. when the employer becomes aware of or the incident was reported to him. COIDA

#### 8.1.3. Recording.

All incidents must be recorded on a document similar to the injury statistic form provided.

#### 8.1.4 Investigation.

The severity of the injury will dictate whom and when the investigation must be conducted. Where reasonable and practicable all incidents must be investigated prior to the end on the shift on which it occurred, reported to or his employer became aware thereof. Sect 31

Fatal and serious injuries must be investigated before the end of the shift on which it occurred or as soon as reasonably practical after the occurrence. A team consisting of the Principle Contractor, the construction safety officer and the health and safety representative in whose area the incident occurred must conduct the incident investigation.

Where an employee of a Contractor is injured the Contractor and the health and safety representative for the area in which it occurred will be part of the team. The client or his agent may if they wish form part of the team. A record of the proceeding including signed statements, the name of the person conducting the investigation and persons assisting team members must be kept. All photographs etc must also be kept in the health and safety file.

**NB** In the event of a fatal, or potentially fatal incident the relevant DoL and the nearest South African Police Services station must be contacted. The scene of the incident may only be altered or disturbed with permission of an inspector or when it is necessary to rescue a person or lives in danger.

#### 8.1.5. Analysis.

The statistics for the total project, each principle Contractor and Contractor must be analysed to ascertain if there is or if any trends are developing by the construction safety officer or a competent person appointed by the client, his agent, the principle Contractor's and all Contractors.

#### 8.1.6. Statistics.

Comprehensive incident / injury statistics must be kept for the total project i.e. the Principle Contractor and every Contractor. The following information must be recorded and kept on the health and safety file of the principle Contractor / s and the Contractor / s.

The client or where applicable his appointed agent must ensure that the relevant statistics are collected, recorded, analysed and the appropriate action instituted. Where a construction safety officer is appointed it will form part of his duties and responsibilities.

Statistics must be kept in the format, suggested which is attached to this document.

The following incidents must be recorded – Fatal, disabling lost time, days lost, medical and first aid cases and man-hours worked. Statistics for the month under review and for the project to-date must be kept either together on one or more documents.

NB The Compensation Commissioner still refers to and reports the Disabling Injury Frequency Rate (DIFR). It has been decided to use the same formula. Contractors may use 200,000 in the formula. However they need to multiply by 5 to reflect the COIDA statistic rate.

8.1.7. Occupational disease / conditions

*These must be reported and recorded as prescribed.*

COIDA

8.1.8. Medical certificate of fitness.

A medical certificate of fitness, valid for 1 year must be available on the premises at all times for employee working on or operating the following:

i) *working in an elevated position,*

R

8. (2)(b)

i. *suspended platform,*

ii. *Cranes – mobile - tower*

iii. *Construction vehicles.*

*During the process of task analyses and or risk assessment it is possible that*

*other tasks may indicate that a medical certificate of fitness is necessary. The prescribed conditions will apply as though it was legislated.*

CR 15(12) (a)

CR 20(g)

CR21 (1) (d)(ii)

CR 7. (1)

**8.2. Health and Safety Committee**

Sect 19(4)

8.2.1. *Composition.*

Sect 19

The duly nominated, elected and designated employees, as health and safety representatives will serve on a health and safety committee. The Health and safety representatives will be required to attend the health and safety committee meetings. The Client and his appointed Construction safety officer are ex-officio members.

8.2.2. Meetings.

Meetings will be held on the day, date, time and place as mutually agreed upon by the health and safety representatives and management. The frequency will also be determined by the aforementioned.

**Where the Principle Contractor has established a Health and Safety Committee the designated Health and Safety Representative shall serve on the Committee and the formula applied.**

**8.3. Legal compliance audits**

8.3.1. Audit schedule

The attached schedule or a similar one approved by the Client and or the Principle Contractor must be used. The person conducting the assessment must report in writing any major deviations observed and where reasonable, practicable the corrective action recommended, the party responsible to take the action and a date by which such must be implemented.

8.3.2. Audit frequency.

*An internal legal compliance audit will be conducted monthly.*

CR 4. (1)

A legal compliance audit will be conducted by an external / independent auditor one (1) per month.

8.3.3. Analysis.

Each audit report must be tabled and discussed at the next relevant health and safety committee meeting. The chairman shall make any appropriate comments and or recommendations and sign the minutes. The Client, Principle Agent must receive a copy of the minutes. The audit of the Contractors must be consolidated, analysed and submitted to the principle Contractor and the client. The findings will be documented, analyses and recommendations made. Where necessary the client / agent will be consulted with to ascertain if additional resources and or finances are required. The action agreed on i.e. the responsible man test - and the time scheduling must be implemented. As the project progresses it may become necessary to increase the frequency of audits.

NB The construction safety office will assume and be appointed to perform these functions.

**9. Log books and Registers.**

9.1. *First aid Equipment*

GSR 3(3)

Mr \_\_\_\_\_ has been appointed the first aid attendant for the project. The prescribed contents of a first aid box will be available on the project and will be under the control of the first aid attendant.

9.2. Fire fighting appliances,

Mr \_\_\_\_\_ is appointed to inspect at the prescribed interval and record his CR 27 (g) findings in the appropriate register.

9.3. Access Scaffolding.

Mr \_\_\_\_\_ has been appointed to inspect access scaffolding as prescribed.

**10. Risk Management**

The prescribed risk identification, assessment and where necessary a method statement will be completed prior to coming on site where possible. As and when additional information etc is received concerning new or additional tasks the necessary risk identification, assessment must be conducted and approval obtained. Risks assessed that suggest a need for a change in design or other corrective action will be referred to the architect / designer or the client or his agent. Employees must receive, and sign acknowledgment of having received appropriate training, that they understood the requirement and would apply the knowledge.

Mr \_\_\_\_\_ is appointed the competent person to conduct the risk assessment.

**11. Education and Training**

11.1. Induction Training

No person will work on this project, or enter or be allowed to remain on the premises unless they have received and acknowledged in writing that they have received, understood and accept the conditions detailed in the induction programme.

A comprehensive list of all induction training given must be kept in the health and safety files and reported on, to management at least monthly. Training sessions must be conducted at least weekly.

NB Occasional visitors, client, agent, architect etc must be re-inducted when significant progress has been made on the project – risk, potential risks become apparent.

11.2. Site-specific training.

Site-specific training requirements will be identified. Where applicable a certificate on competency must be must be available – or a certified copy – on the site.

**12. Evacuation procedure**

12.1. The Clients or Principle Contractors evacuation procedure will be communicated to all employees.

12.2. All Company employees will report to their assembly point - the site office.

12.3. Definition of an emergency:

An emergency is a major occurrence such as a fire, bomb threat, chemical spillage, explosion, aircraft crash, or a natural disaster i.e. earthquake / cyclone, which could result in injury, loss of life, or extensive damage to property and the environment.

12.4. Alarm

An audible alarm will be sounded to warn employees of an emergency and also when the situation returns too normal.

12.5. Employee response to an alarm.

Stop working.

If you are using an electric or pneumatic tool switch it off place it on the ground and proceed to the assembly point.

Report to your Supervisor

12.6. Employee response to the all-clear signal.

Return to your working area and proceed with the task you were busy with prior to the evacuation.

**Fire:** \_\_\_\_\_ 3 Short sharp blasts

**Serious Incident :** \_\_\_\_\_ Long – short – long blasts

**All clear :** \_\_\_\_\_ 5 seconds

### 13. Environmental Management.

Pressure on natural resources, including land, has continuously increased, as the population increases and likewise, awareness of the need to lessen the negative impacts of development and construction on the environment will continue to increase.

Every effort must be made to use environmentally friendly paints and where possible water-based. The containers once emptied must be disposed of at an approved disposal site or returned to the supplier.

### 14. Ergonomics

Ergonomics is "the study of work". Ergonomics therefore is the Profession that studies and analyses people at work, the work systems, and how best they fit together. Much of the work done on Construction Sites is by its very nature an ergonomic problem, because it requires physical work to be done above head height, and below waist level, aggravated by constructions materials being heavy and/or inconveniently sized and shaped, which presents further manual materials handling issues.

### 15 Health and Safety Communication

Minutes of all health and safety committee meetings shall after acceptance shall be displayed, strategically placed on a site notice board. Where appropriate Newspaper clipping may be used during "tool box" talks and induction training. Any change in company policy or legislation the may affect employees must be communicated to employees as soon as is reasonable and practicable.

### 16. Safe work procedures.

A programme of safe work procedures is to be embarked on starting with those identified during the risk identification and assessment. Where reasonable and practicable steps have been taken and elements of risk still remain a procedure needs to be developed. The employees required to perform them must receive adequate training. Proof of training must be kept and be available on the premises.  
All procedures need to be documented.

### 17. Personal Protective Clothing and equipment.

*PPE may only be issued only after all reasonable and practicable steps have been taken Act sec 8(2)  
to remove or reduce the hazard and or potential hazards. GSR 2(2)*

All items issued must be maintained in good working order i.e. serviced and repaired as and when necessary. Items must be issued free of charge and for the personal use of the employee. The employee shall sign acknowledgement of receipt of the items that he will use it, them as prescribed and that he has received the necessary training in the use and care of the items.

*The principle Contractor and Contractor must take all reasonable steps to ensure that PPE GSR 2(6) issued is used, worn and maintained as described.*

### 18. Project / Site Security.

#### 18.1. Barricading and maintenance

Adequate and suitable solid barricading must be erect and maintained to prevent unauthorised entry as well as to control access onto and off the site. Suitable information signs must be strategically positioned. They will include but not be limited to the following – No unauthorised entry, all visitors must report to the Site office, personal protective clothing / equipment must be worn etc. NB Project / Site management are responsible for all activities taking place on the premises, and people who enter onto or who are allowed to remain on the site.

#### 18.2. Access control

The Client is responsible for the access to and egress from the construction area.

### 19. Implementation costs.

The cost of implementation should include but are not limited to the following-

#### 19.1. Administration

Project registration,  
Occupational health and safety plan and file,  
All assignments, appointments and designation,  
Risk identifications and assessments and Logbooks and registers,  
Health and safety committee meetings and minutes.

#### 19.2. Training and Education

Induction training and badges,  
First aid,  
Health and safety representatives  
Others - specify,

- 19.3. Legal compliance audits and reports.  
Monthly or as required by the client.
- 19.4. Personal Protective Equipment and Clothing.
- 19.5. Other.  
Site-specific requirements are to be specified.

**Conclusion**

This Health and Safety Plan has been developed and after negotiation with the Agent accepted. This approved plan will be made available to each Contractor prior to their commencing construction work on the project. We the undersigned do hereby acknowledge receipt of, understand and accept the contents of this Health and Safety Plan.

<b>Client</b>			
_____	_____	_____	_____
Name	Signature	Designation	Date
<b>Principle Contractor</b>			
_____	_____	_____	_____
Name	Signature	Designation	Date
<b>Principle Contractor</b>			
_____	_____	_____	_____
Name	Signature	Designation	Date



**TRANSNET**



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**

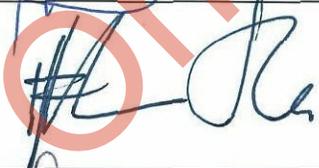
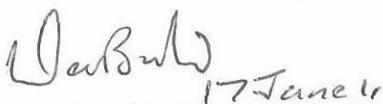
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**SPECIFICATION FOR GENERAL WORK AND WORKS ON, OVER, UNDER OR  
ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT**

Author:	Project Manager Capital Program (Electrical)	G. Maposa	
Approved:	Senior Engineer Infra Engineering (Train Authorisation Systems)	J. van den Berg	
"	Principal Engineer Infra Engineering (Track)	M. Marutla	
"	Principal Engineer Infra Engineering (Structures)	J. Homan	
"	Principal Engineer Infra Engineering (Electrical)	J. Vosloo	
"	Principal Engineer Technology Management (Electrical)	W. Coetzee	
"	Chief Engineer Transport Telecoms	D. Botha	 17 June 11
Authorised:	Chief Engineer Infrastructure Engineering	J. van Aardt	 2011/06/30

Date:

May 2011

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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.

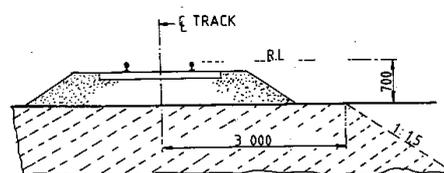


Fig. 1.

- 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 clause 14.10, 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

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who will determine the work method and procedures to be followed.

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## 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 than 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:-

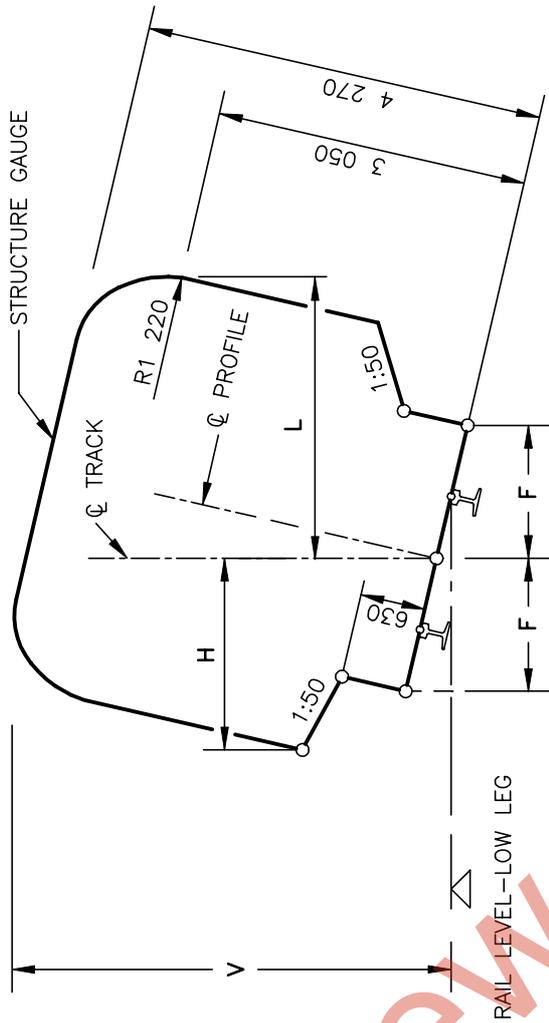
- (i) Eskom and municipal equipment;
- (ii) The Contractor's own power supplies; and
- (iii) Electrical equipment being installed but not yet taken over from the Contractor.

**END**

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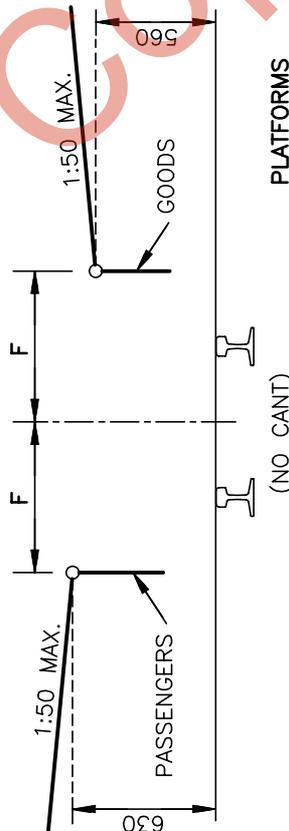
CLEARANCES : 610mm TRACK GAUGE



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		NO CANT		V (mm)
	H (mm)	L (mm)	H & L (mm)	V (mm)	
50	2 370	2 490	2 400	4 320	4 320
70	2 310	2 420	2 330	4 310	4 310
100	2 260	2 370	2 280	4 310	4 310
140	2 220	2 340	2 250	4 310	4 310
200	2 200	2 300	2 220	4 300	4 300
300	2 190	2 270	2 200	4 300	4 300
500	2 180	2 230	2 190	4 290	4 290
700	2 170	2 200	2 180	4 270	4 270
1 000	2 170	2 170	2 170	4 270	4 270
>2 000	2 160	2 160	2 160	4 270	4 270

CLEARANCES



REMARKS:

- H IS THE MINIMUM HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
- L IS THE MINIMUM HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
- V IS THE MINIMUM VERTICAL CLEARANCE.
- FOR APPLICATION AT CURVES:
  - 1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 2m BEYOND THE ENDS OF THE CIRCULAR CURVE.
  - 2 REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
  - 3 FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 18m ALONG STRAIGHTS.
- INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
- ALSO REFER TO REMARKS 5, 6 AND 7 OF ANNEXURE 1 SHEET 2.
- CLEARANCES ARE BASED ON 9 700mm BOGIE CENTRES AND 13 700mm VEHICLE BODY LENGTH.
- SEE ANNEXURE 1 SHEET 3 FOR STRUCTURES ON PLATFORMS.