

Transnet Freight Rail

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

REQUEST FOR PROPOSAL (RFP) for:

FOR THE: DESIGN, INSTALL AND COMMISSIONING A FIRE HYDRANT SYSTEM IN BAYHEAD MARSHALLING YARD

RFP NUMBER	: HOAC_VAR_0000030176
ISSUE DATE	: 25 October 2021
COMPULSORY BRIEFING	: Not applicable
CLOSING DATE	: 18 November 2021
CLOSING TIME	: 10h00 AM
TENDER VALIDITY PERIOD	: 12 weeks from closing date

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

SECTION 1: NOTICE TO TENDERERS

1. INVITATION TO TENDER

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

DESCRIPTION	Design, Install and Commissioning a Fire Hydrant System in Bayhead Marshalling Yard
COLLECT DOCUMENTS FROM	<p>This RFP may be downloaded directly from National Treasury's e-Tender Publication Portal as well as Transnet e-Tender Portal at www.etenders.gov.za free of charge as well as Transnet website. To download RFP and Annexures:</p> <ul style="list-style-type: none"> Click on "Tender Opportunities"; Select "Advertised Tenders"; In the "Department" box, select Transnet SOC Ltd; <p>Once the tender has been located in the list, click on the 'Tender documents' tab and process to download all uploaded documents.</p>
COMMUNICATION	<p>Any addenda to the RFP or clarifications will be published on the e-tender portal as well as TFR website. Bidders are required to check the e-tender portal as well as TFR website prior to finalising their bid submissions for any changes or clarifications to the RFP.</p> <p>Transnet will not be held liable if Bidders do not receive the latest information regarding this RFP with the possible consequence of either being disadvantaged or disqualified as a result thereof.</p>
COMPULSORY TENDER CLARIFICATION MEETING	There will be NO briefing session for this tender.
CLOSING DATE	<p>10:00 AM on Thursday, 18 November 2021</p> <p>Tenderers must ensure that tenders are delivered timeously to the correct address. If a tender is late or delivered to the incorrect address, it will not be accepted for consideration.</p>

2. TENDER SUBMISSION

Tender Offers must be sealed and addressed as follows:

The Secretariat, Transnet Freight Acquisition Council

RFP No: HOAC_VAR_0000030176

Description: Design, Install and Commissioning a Fire Hydrant System in Bayhead Marshalling Yard

Closing date and time: **Thursday, 18 November 2021@10:00 AM**

Closing address: Tender Box located at **Inyanda House 1, 21 Wellington Rd, Parktown Johannesburg, 2001.**

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3. DELIVERY INSTRUCTIONS FOR TENDER**3.1 Delivery by hand**

If delivered by hand, the sealed submission must be deposited in the tender box, which is located at the address of the Transnet tender box and must be addressed as follows:

10:00 AM on Thursday, 18 November 2021. This bid shall close punctually at the following address:

**The Secretariat,
Transnet Freight Rail Acquisition Council,
Inyanda House 1,
21 Wellington Rd,
Parktown
Johannesburg
2001.**

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

3.2 Dispatch by courier

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

10:00 AM on Thursday, 18 November 2021

This bid shall close punctually at the following address:

The Secretariat,
Transnet Freight Rail Acquisition Council,
Inyanda House 1
21 Wellington Rd
Parktown,
Johannesburg
2001.

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

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4. CONFIDENTIALITY

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

5. DISCLAIMERS

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

- 5.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer.
- 5.2. Not necessarily accept the lowest priced tender or an alternative Tender;
- 5.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;
- 5.4. Should the Tenderers be awarded business on strength of information furnished by the Tenderer, which after conclusion of the contract is proved to have been incorrect, Transnet reserves the right to terminate the contract;
- 5.5. Request audited financial statements or other documentation for the purposes of a due diligence exercise;
- 5.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;
- 5.7. Verify any information supplied by a Tenderer by submitting a tender, the Tenderer/s hereby irrevocably grant the necessary consent to the Transnet to do so;
- 5.8. Conduct the evaluation process in parallel. The evaluation of Tenderers at any given stage must therefore not be interpreted to mean that Tenderers have necessarily passed any previous stage(s);
- 5.9. Unless otherwise expressly stated, each tender lodged in response to the invitation to tender shall be deemed to be an offer by the Tenderer. The Employer has the right in its sole and unfettered discretion not to accept any offer.



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- 5.10. Not be held liable if tenderers do not provide the correct contact details during the clarification session and do not receive the latest information regarding this RFP with the possible consequence of being disadvantaged or disqualified as a result thereof.
- 5.11. Transnet reserves the right to exclude any Tenderers from the tender process who has been convicted of a serious breach of law during the preceding 5 [five] years including but not limited to breaches of the Competition Act 89 of 1998, as amended. Tenderers are required to indicate in tender returnable [clause 12 on T2.2-43, **[Breach of Law]**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.
6. Transnet will not reimburse any Tenderer for any preparatory costs or other work performed in connection with this Tender, whether or not the Tenderer is awarded a contract.

7. NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE

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

Supplier Number..... and Unique registration reference number.....
(Tender Data)

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

T1.2 TENDER DATA

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

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

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

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

Clause	Data
C.1.1 The <i>Employer</i> is	Transnet SOC Ltd (Reg No. 1990/000900/30)
C.1.2 The tender documents issued by the <i>Employer</i> comprise:	
Part T: The Tender	
Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
Part T2 : Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
Part C: The contract	
Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2)
Part C2: Pricing data	C2.1 Pricing instructions C2.2 Bill of Quantities
Part C3: Scope of work	C3.1 Works Information

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Part C4: Site information		C4.1 Site information
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C.1.4	The Employer's agent is:	Procurement Officer
	Name:	Nnemo Pyana
	Address:	15 Girton Road Inyanda House 2 Park Town Johannesburg 2001
	Tel No.	(011) 308 1682
	E – mail	Nnemo.pyana@transnet.net

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

1. Stage One- Eligibility in terms of the Construction Industry Development Board:

- a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, designation of **6ME or higher** class of construction work, are eligible to have their tenders evaluated.

b) Joint Venture (JV)

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

1. every member of the joint venture is registered with the CIDB;
2. The lead partner has a contractor grading designation of not lower than one level below the required grading designation in the class of construction works under consideration and possess the required recognition status.
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 **6ME or higher** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
4. The tenderer shall provide a certified copy of its signed joint venture agreement.

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

2. Stage Two - Local Production and Content in terms of the Preferential Procurement Regulations, 2017:

Tenderers must properly complete, duly sign and submit returnable schedule entitled "Declaration Certificate for Local Production and Content (**SBD 6.2 and Annexures C, D & E**)", committing to meet the following stipulated minimum thresholds for local production and content for the following designated sectors as determined by the Department of Trade and Industry (DTI):

Electrical & Telecom Cables 90%
Steel Value Added Products 100%
Plastic Pipes 100%
PVC Pipes 100%
High Density polyethylene (HDPE) Pipes 100%
Galvanized Steel 100%
Valves products and actuators 70%
Pumps, Medium Voltage (MV) Motor and Associated Accessories 70%

The exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of the advertisement of the tender. The rates of exchange quoted by the tenderer in paragraph 4.1 of returnable schedule T2.2-02 (the Declaration Certificate for Local Production and Content for Designated Sectors) may be verified for accuracy. Only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 must be used to calculate local content.

The SABS approved technical specification number SATS 1286:2011 and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)] are accessible to all potential tenderers on the DTI's official website;
<http://www.the dti.gov.za/industrial development/ip.jsp>

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

3. Stage Three - Functionality:

Only those tenderers who obtain the minimum qualifying score for functionality will be evaluated further in terms of price and the applicable preference point system. The minimum qualifying score for functionality is **60** points.

The evaluation criteria for measuring functionality and the points for each criteria and, if any, each sub-criterion are as stated in C.3.11.2 below.

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

C.2.12 No alternative tender offers will be considered.

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

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- C.2.13.5 The *Employer's* details and address for delivery of tender offers and identification details that
C2.15.1 are to be shown on each tender offer package are:

Location of tender box **Inyanda House 1, 21 Wellington Rd, Parktown, Johannesburg, 2001.**

Physical address: **Inyanda House 1,
21 Wellington Rd,
Parktown
Johannesburg
2001**

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

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

Documents must be marked for the attention of: Nnemo
Pyana, Procurement Officer

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

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- C.2.15 The closing time for submission of tender offers is:
Time: **10:00 AM on Thursday the 18 November 2021**

Location: **Inyanda House 1,
21 Wellington Rd,
Parktown
Johannesburg
2001.**

NO LATE TENDERS WILL BE ACCEPTED

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

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

1. A valid Tax Clearance Certificate issued by the South African Revenue Services.

Tenderers also to provide Transnet with a TCS PIN to verify Tenderers compliance status.

2. A valid B-BBEE Certificate from a Verification Agency accredited by the South African Accreditation System [**SANAS**], or a sworn affidavit confirming annual turnover and level of black ownership in case of all EMEs and QSEs with 51% black ownership or more together with the bid;

3. A valid CIDB certificate in the correct designated grading;
4. Proof of registration on the Central Supplier Database;
5. Certified Letter of Good Standing with the Workmen's compensation fund.

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

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

C3.11.1 The minimum number of evaluation points for functionality is: **60**

The procedure for the evaluation of responsive tenders is using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data:

Only those tenderers who attain the minimum number of (60) evaluation points for Functionality will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from any further consideration.

Functionality Criteria:

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

C3.11.2	Quality Criteria	Maximum Score
	<p>T2.2-02 Programme</p> <p>The tenderer shall provide the proposed programme, at a minimum Level 2 showing the following:</p> <ul style="list-style-type: none"> ▪ Ability to execute the works in terms of the <i>Employer's</i> requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data. ▪ Dates when the tenderer will need access to any part of the Site; submission & approval process & timing for Health & Safety Files, Environmental Files and Quality Files. In addition, the Programme must clearly demonstrate the procurement process for all long lead items if applicable. ▪ The tenderer indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule - Start Date, Access Date, Planned Completion & Completion Date. In addition, the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or 	<p style="text-align: center;">5</p>

<p>as an attachment.</p> <ul style="list-style-type: none"> ▪ The Programme must clearly support and demonstrate alignment to the Method Statement as contained in T2.1 List of Returnables. 	
<p>T2.2-07 Management of CV's of key person</p> <p>The tender must be able to demonstrate that the project personnel have sufficient knowledge, experience and qualifications to provide the required services and submit the following documents as a minimum with the tender:</p> <ol style="list-style-type: none"> 1. The experience of assigned key persons in relation to the scope of work will be evaluated from two different points of view, namely: <ol style="list-style-type: none"> i. Relevant experience ii. The education, training and skills of the assigned staff in the specific sector, field, subject, etc. which is directly linked to the Scope of Works. Proof of education and training must be attached to the C.V. 2. Comprehensive CV's should be attached to this schedule: <p>As a minimum each CV should address the following, but not limited to;</p> <ol style="list-style-type: none"> i. Personal particulars <ol style="list-style-type: none"> a. Name b. Place (s) of tertiary education and dates associated therewith c. Professional awards ii. Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations) iii. Name of current employer and position in enterprise iv. Overview of post graduate experience (year, organization and position) v. Outline of recent assignments / experience that has a bearing on the Scope of Works 	<p>25</p>
<p>T2.2-20 Quality Management Plan</p> <p>The tenderer shall submit the following list below of Quality Management requirements but not be limited to:</p> <ul style="list-style-type: none"> • Project Quality Plan which satisfies the technical and quality requirements of the <i>works</i>, identifying all procedures, reviews, audits, 	

<p>controls and records used to control and verify compliance with the Works Information.</p> <ul style="list-style-type: none"> • Project specific Quality data book index. • Valid ISO 9001 Certification • Index/List of procedures • Quality Control Plans (QCP's) for each task specific to the Works Information • A signed Quality Policy based on International Organisation for Standardisation • CV of Quality Manager and Quality Officer (s) with technical experience. 	5
<p>T2.2-21 Environmental Management</p> <p>The Tenderer must review the following documents for context to meet the environmental requirements, namely:</p> <p>a) Transnet SOC Limited – Environmental Risk Management Policy;</p> <p>b) Project Environmental Specification (PES) which comprises of the following as a minimum:</p> <ul style="list-style-type: none"> - Standard Operating Procedure for Construction Environmental Management - Minimum Standards for Construction Environmental Management - Transnet Policies <p>Where applicable, the following may also apply:</p> <ul style="list-style-type: none"> - Any other operational/maintenance environmental plans or specifications <ol style="list-style-type: none"> 1. The tenderer must provide evidence of how their Environmental Management System (EMS) will ensure conformance to the abovementioned requirements. 2. The tenderer must provide an environmental policy signed by Top Management which, as a minimum: <ul style="list-style-type: none"> - Is appropriate given the purpose and context of the tenderer's business; - Includes a commitment to fulfil the tenderer's environmental compliance (legal) obligations; - Includes a commitment to the protection of the environment, including prevention of pollution; 	5

<ul style="list-style-type: none"> - Provides framework for setting environmental objectives; and - Includes a commitment to continual improvement of their EMS; <p>3. The tenderer must provide an Organisational Chart depicting key environmental staff and the chart must be accompanied by CV's showing staff competencies, experience and qualifications relevant to project environmental management functions.</p> <p>4. The tenderer must provide a list of projects where environmental duties of a similar nature have been executed including a brief description of such duties together with client reference contact details.</p> <p>5. The tenderer must return a signed declaration of understanding (ENV-FAT-0002) as a measure that they understand the environmental conformance requirements specific to the project. By signing this Tender Schedule, the tenderer confirms that they will comply with the above requirements and in particular Transnet policy statements and environmental specifications.</p>	
<p>T2.2-22 Health and Safety Plan</p> <p>The tenderer must submit the following documents as a minimum with the tender submission:</p> <p>1. Contract specific Health & Safety plan including the following:</p> <ul style="list-style-type: none"> a. Roles and responsibilities of legal appointees in terms of OHSA 85 of 1993 and its Regulations. <ul style="list-style-type: none"> i. S16.1 CEO, ii. S16.2 Assistant to CEO, iii. CR8.1 Construction manager, iv. CR8.2 Assistant Construction manager, v. CR8.5 Construction Health & Safety officer, vi. CR8.7 Construction Supervisor, vii. CR8.8 Construction assistant supervisor, viii. CR9.1 Risk Assessor ix. Construction Health & Safety Manager b. Valid Letter/s of Good Standing with the Workmen's compensation fund (Letters of Good Standing from all members of a newly formed JV). c. Safety, Health & Environmental Company Policy signed by the accounting officer. Indicating as minimum the following five elements - <ul style="list-style-type: none"> i. Commitment to Safety, prevention of pollution, ii. Continual improvement, 	5

<ul style="list-style-type: none"> iii. Compliance to legal requirements, appropriate to the nature of contractor's activities, iv. Hold management accountable for development of the safety systems v. Include objectives and targets. <p>d. Overview of Tenderer's SHE system for project</p> <p>2. Overview of the tenderer's Risk Assessment methodology, and submission of risk assessments indicating major activities of the works and how the risks will be addressed and mitigated.</p> <p>3. Synopsis of Health & Safety incidents, description, type and action taken to prevent re-occurrence and submission of completed cost breakdown sheet within the three years.</p>	
<p>T2.2-25 Previous Experience</p> <p>Tenderers are required to demonstrate their experience over the last five years in similar projects, areas, conditions and circumstances in relation to the scope of work, and to this end shall supply a sufficiently detailed reference list with contact details of existing customers and indicate their previous experience.</p> <ul style="list-style-type: none"> • Company's previous experience in similar project similar projects, areas, conditions and circumstances in relation to the Works Information. • Number of projects completed within the last 5 years. • Contract values of Projects Completed. 	30
<p>T2.2-37 Method Statement / Constructability Plan</p> <p>In addition to general methodology for the project please provide specific information for the following points:</p> <ul style="list-style-type: none"> 1. Technical approach and methodology. 2. Understanding. 3. Overall packing and presentation. 4. Risk analysis. 	25

Total	100
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Functionality shall be scored independently by not less than 3 (three) evaluators and averaged in accordance with the following schedules:

- T2.2-02 Programme
- T2.2-07 Management & CVs of Key Persons
- T2.2-20 Quality Plan
- T2.2-21 Environmental Management
- T2.2-22 Health and Safety Requirements
- T2.2-25 Previous Experience
- T2.2-37 Method Statement

Each evaluation criteria will be assessed in terms of scores of 0, 20, 40, 60, 80 or 100. The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for functionality, unless scored collectively. (See CIDB Inform Practice Note #9).

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

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

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

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

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

C.3.13 Tender offers will only be accepted if:

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

2. The tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;
3. The tenderer is registered with the Construction Industry Development in an appropriate contractor grading designation;
4. The tenderer has fully and properly completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process and persons in the employ of the state.
5. Transnet reserves the right to award the tender to the tenderer who scores the highest number of points overall, unless there are objective criteria which will justify the award of the tender to another tenderer. Objective criteria include but are not limited to the outcome of a due diligence exercise to be conducted. The due diligence exercise may take the following factors into account inter alia;

the tenderer:

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

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

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T2.1 List of Returnable Documents

2.1.1 These schedules are required for eligibility purposes:

Stage One as per CIDB: Eligibility Criteria Schedule:

T2.2-59: CIDB Grading Designation

Stage Two as per PPPFA: Eligibility Criteria Schedule:

SBD 6.2: Declaration Certificate of Local Production and Content

2.1.2 These schedules are required for evaluation purposes:

Stage Three: These schedules will be utilised for evaluation purposes:

- T2.2-2 Evaluation Schedule: Programme
- T2.2-7 Evaluation Schedule: Management of CV's of key person
- T2.2-20 Evaluation Schedule: Quality Management Plan
- T2.2-21 Evaluation Schedule: Environmental Management
- T2.2-22 Evaluation Schedule: Health and safety plan
- T2.2-25 Evaluation Schedule: Previous Experience
- T2.2-37 Evaluation Schedule: Method Statement

2.1.3 Returnable Schedules:

General:

- T2.2-3 Risk Elements
- T2.2-4 Availability of equipment and other resources
- T2.2-14 Authority to submit tender
- T2.2-16 Record of addenda to tender documents
- T2.2-17 Compulsory Enterprise Questionnaire

2.1.4 Agreement and Commitment by Tenderer:

- T2.2-31 Service Provider Integrity Pact
- T2.2-33 Non-Disclosure Agreement
- T2.2-36 RFP Declaration Form
- T2.2-43 RFP – Breach of Law
- T2.2-51 Certificate of Acquaintance with Tender Document

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Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead
Marshalling Yard

2.1.5 Financial/Insurance:

T2.2-9 Insurance provided by the *Contractor*

2.1.6 Transnet Vendor Registration Form:

T2.2-34 Supplier Declaration Form

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

2.3 C1.2 Contract Data

2.4 C2 Pricing Data:

2.5 C2.1 Bill of Quantities

2.6 C3.1 Works Information

2.7 C3.2 Annexures

2.8 C4.1 Site Information

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Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

T2.2-59: Eligibility Criteria Schedule - CIDB Grading Designation

Note to tenderers:

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

CRS Number	Status	Grading	Expiry Date

- Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a **6ME or higher** class of construction work, are eligible to have their tenders evaluated.

2. Joint Venture (JV)

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

- every member of the joint venture is registered with the CIDB;
- the lead partner has a contractor grading designation in the a **5ME** class of construction work; and
- the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **6ME or higher** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
- the Contractor shall provide the employer with a certified copy of its signed joint venture agreement;
- and in the event that the joint venture is an 'Incorporated Joint Venture' the Memorandum of Incorporation to be provided within 4 (four) weeks of the Contract Date.

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SBD 6.2

SBD6.2: Pre-qualification Criteria Schedule: Declaration of Certificate for Local Production and Content for Designated Sectors

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2. Regulation 8.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.

- 1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

2. Definitions

- 2.1. **"bid"** includes written price quotations, advertised competitive bids or proposals;
- 2.2. **"bid price"** price offered by the bidder, excluding value added tax (VAT);
- 2.3. **"contract"** means the agreement that results from the acceptance of a bid by an organ of state;

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- 2.4. **"designated sector"** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5. **"duly sign"** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual).
- 2.6. **"imported content"** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7. **"local content"** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 2.8. **"stipulated minimum threshold"** means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9. **"sub-contract"** means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
3. **The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:**

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
• Electrical & Telecom Cables	90%
• Steel Value Added Products	100%
• Plastic Pipes	100%
• PVC Pipes	100%
• High Density polyethylene (HDPE) Pipes	100%
• Galvanized Steel	100%
• Valves products and actuators	70%
• Pumps, Medium Voltage (MV) Motor and Associated Accessories	70%

4. Does any portion of the services, works or goods offered have any imported content?

(Tick applicable box)

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

- 4.1. If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za

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Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

- Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

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LOCAL CONTENT DECLARATION
(REFER TO ANNEXURE B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: TRANSNET FREIGHT RAIL ON BEHALF OF TRANSNET SOC LTD

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thdti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names), do hereby declare, in my capacity asof.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Electrical & Telecom Cables

Price of the Designated commodity Ex VAT	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	90%
Local content %, as calculated in terms of SATS 1286:2011	

Steel Value Added Products

Price of the Designated commodity Ex Vat	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	100%
Local content %, as calculated in terms of SATS 1286:2011	

Plastic Pipes

Price of the Designated commodity Ex Vat	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	100%
Local content %, as calculated in terms of SATS 1286:2011	

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PVC Pipes

Price of the Designated commodity	Ex Vat	R
Imported content (x), as calculated in terms of SATS 1286:2011		R
Stipulated minimum threshold for local content (paragraph 3 above)		100%
Local content %, as calculated in terms of SATS 1286:2011		

High Density polyethylene (HDPE) Pipes

Price of the Designated commodity	Ex Vat	R
Imported content (x), as calculated in terms of SATS 1286:2011		R
Stipulated minimum threshold for local content (paragraph 3 above)		100%
Local content %, as calculated in terms of SATS 1286:2011		

Galvanized Steel

Price of the Designated commodity	Ex Vat	R
Imported content (x), as calculated in terms of SATS 1286:2011		R
Stipulated minimum threshold for local content (paragraph 3 above)		100%
Local content %, as calculated in terms of SATS 1286:2011		

Valves products and actuators

Price of the Designated commodity	Ex Vat	R
Imported content (x), as calculated in terms of SATS 1286:2011		R
Stipulated minimum threshold for local content (paragraph 3 above)		70%
Local content %, as calculated in terms of SATS 1286:2011		

Pumps, Medium Voltage (MV) Motor and Associated Accessories

Price of the Designated commodity	Ex Vat	R
Imported content (x), as calculated in terms of SATS 1286:2011		R
Stipulated minimum threshold for local content (paragraph 3 above)		70%
Local content %, as calculated in terms of SATS 1286:2011		

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2017

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promulgated under the Preferential Policy Framework Act (PPFA), 2000 (Act No. 5 of 2000).	
SIGNATURE: _____	DATE: _____
WITNESS No. 1 _____	DATE: _____
WITNESS No. 2 _____	DATE: _____

NOTE TO TENDERERS: Failure to fully complete, declare, sign & date this SBD6.2 Declaration as well as the accompanying Annexure C "local content declaration - summary schedule" may result in the tender submission being non-responsive and disqualified from any further evaluation.

Schedule A – Non-compliance for Local Content

Non-compliance Penalties for Local Content:

- a) If for any reason the *Contractor* is unable to achieve the local content undertaking, the *Contractor* must approach the Department of Trade and Industry ("DTI") to obtain exemption in order to supply the goods at a lower local content threshold. The *Contractor* is obliged to approach DTI for exemption within 10 (ten) days of determining that it is unable to achieve any milestone target or local content threshold.
- b) Should the DTI provide exemption, the *Contractor* shall be entitled to provide the goods at the lower local content threshold set by DTI. In such event, the Parties shall in good faith renegotiate the milestone targets or local content undertaking to ensure that the lowered local content thresholds are achieved.
- c) Should DTI not provide the necessary exemption, the *Contractor* shall be obliged to meet each milestone target as stated in the Local Content Plan or the local content undertaking.
- d) Should the *Contractor* fail to meet any milestone target or the local content undertaking, the following remedies shall apply without limiting any of the *Employer's* other rights in law:
 - i. The *Employer* shall afford the *Contractor* a period of thirty (30) days to remedy its non-compliance.
 - ii. Should the *Contractor* fail to meet its obligations within the further 30 day period, the *Contractor* shall pay a Non-Compliance penalty ("Non-compliance Penalty") to the *Employer* in respect of such Non-compliance as set out in clause iv below. The penalties shall be imposed per milestone measurement for non-delivery of committed values in the case of a Local Content Plan or shall be imposed against the non-delivery of committed values where local content undertakings must be met immediately.
 - iii. To the extent that the Actual Local Content Spend¹ is lower than the Required Local Content Spend² (or the Adjusted Required Local Content Spend³, as the case may be), the *Contractor* shall be liable for Penalties which is the difference in value between the Actual Local Content Spend and the Required Local Content Spend (or the Adjusted Required Local Content Spend, as the case may be) plus an additional percentage of such difference. Such Non-compliance Penalties shall be calculated and levied at the relevant milestones as stipulated in the Local Content Plan or shall be imposed against the non-delivery of committed values where local content undertakings must be met immediately, in accordance with clause iv below.

¹ Actual Local Content Spend means the monetary value of local content initiatives actually delivered by the Supplier during the period under review.

² Required Local Content Spend means the monetary value of local content obligations that the Supplier has agreed to deliver during the period under review.

³ Adjusted Required Local Content Spend means any adjustment to the Required Local Content Spend as prescribed by DTI through the process of exemption referred to in clause c) above and as agreed to between the parties, reduced to writing and signed by the parties.

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Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

- iv. Non-compliance penalties shall apply at the following rate: the difference in value between the Required Local Content Spend and the Actual Local Content Spend, plus 5% of such difference.
- v. In order to guarantee that the *Contractor* meets its obligations in terms of the Local Content Plan or its committed local content undertaking, the *Employer* shall be entitled to retain a Non-compliance Penalty at the rate of 1% of every monthly payment due by the *Employer* to the *Contractor* over the contract period ("the Local Content Retention Amount"). The Local Content Retention Amount shall be set off against any penalties payable by the *Contractor* at any milestone assessment.
- e) Should no penalties be imposed during the duration of the contract, the *Employer* shall refund the full value of the Local Content Retention Amount to the *Contractor* at the end of the contract period.
- f) Should any unpaid penalties remain at the end of the contract period, then without limiting other rights that the *Employer* may have in law, the *Contractor* shall forfeit the Local Content Retention Amount and shall have no further claim against the *Employer* for the repayment of such amount.

Non-compliance Penalty Certificate:

- a) If any Non-compliance Penalty arises, the *Employer* shall issue a Non-compliance Penalty Certificate on the last day of each month during such Non-compliance indicating the Non-compliance Penalties which have accrued during that period.
- b) A Non-compliance Penalty Certificate shall be prima facie proof of the matters to which it relates. If the *Contractor* disputes any of the amounts set out in a Non-compliance Penalty Certificate:
 - the dispute shall be resolved in accordance with the provisions of the Contract; and
 - if pursuant to that referral, it is determined that the *Contractor* owes any amount to the *Employer* pursuant to the Non-compliance Penalty Certificate, then the *Contractor* shall pay such amount to the *Employer* within 10 (ten) Business Days of the determination made pursuant to such determination and an accompanying valid Tax Invoice.

Payment of Non-compliance Penalties:

- a) Subject to Clause i) above, the *Contractor* shall pay the Non-compliance Penalty indicated in the Non-compliance Penalty Certificate within 10 (ten) Business Days of the *Employer* issuing a valid Tax Invoice to the *Contractor* for the amount set out in that certificate. If the *Employer* does not issue a valid Tax Invoice to the *Contractor* for Non-compliance Penalties accrued during any relevant period, those Non-compliance Penalties shall be carried forward to the next period.
- b) The *Contractor* shall pay the amount due within 10 (ten) days after receipt of a valid Tax Invoice from the *Employer*, failing which Transnet shall, without prejudice to any other rights of the *Employer* under this Agreement, be entitled to call for payment which may be in any form the *Employer* deems reasonable and appropriate.
- c) It is agreed that the *Employer*, the DTI, the South African Bureau of Standards and/or any of their appointed agents shall be entitled to monitor, evaluate and audit the *Contractor's* compliance with its obligations under the Local Content Plan. To this end, the *Contractor* shall provide its full cooperation to the respective bodies referred to in this clause to ensure that effective monitoring, evaluation and auditing takes place.

The Non Compliance Penalties set forth in this Clause are stated exclusive of VAT. Any VAT payable on Non Compliance Penalties will be for the account of the *Contractor*.

Annex C

Local Content Declaration - Summary Schedule

- (C1) Tender No. HOAC_VAR_0000030176
- (C2) Tender description: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard
- (C3) Designated product(s) Valves products and actuators 70%
- (C4) Tender Authority:
- (C5) Tendering Entity name:
- (C6) Tender Exchange Rate: Pula EU GBP
- (C7) Specified local content 70%

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value- net of exempted imported content	Imported value	Local value	Local content % (per item)	Commodity Qty	Total Commodity value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	250mm diameter isolating valves: leg 1 & leg 2							4			
	250mm diameter non return valves							2			
	Air valve complete assemblies of steel pipes							4			
	Air valves complete assemblies of HDPE pipes							8			

Signature of tenderer from Annex B

Date:

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender



Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)

Tender No.

HOAC_VAR_0000030176

(D2)

Tender description:

Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(D3)

Designated Products:

Valves products and actuators 70%

(D4)

Tender Authority:

(D5)

Tendering Entity name:

(D6)

Tender Exchange Rate:

Pula

EU

GBP

Note: VAT to be excluded from all calculations

A. Exempted imported content

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value										R 0	
										This total must correspond with Annex C - C 21	

B. Imported directly by the Tenderer

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
(D32) Total imported value by tenderer										R 0	

C. Imported by a 3rd party and supplied to the Tenderer

C. Imported by a 3rd party and supplied to the Tenderer				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

D. Other foreign currency payments			Calculation of foreign currency payments			Summary of payments
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange		Local value of payments
(D46)	(D47)	(D48)	(D49)	(D50)		(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party						
(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above						R 0

Signature of tenderer from Annex B

Date: _____

This total must correspond with Annex C - C 23

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	HOAC_VAR_0000030176
(E2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard
(E3)	Designated products:	Valves products and actuators 70%
(E4)	Tender Authority:	
(E5)	Tendering Entity name:	

Note: VAT to be excluded from all calculations

[illegible]

(E10)	Manpower costs	(Tenderer's manpower cost)		R
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)		R
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)		R
	(E13) Total local content			R
	This total must correspond with Annex C - C24			

Signature of tenderer from Annex B

Date: _____

Annex C

Local Content Declaration - Summary Schedule

(C1) **Tender No.** HOAC_VAR_0000030176

(C2) **Tender description:** Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(C3) **Designated product(s)** Electrical & Telecom Cables 90%

(C4) **Tender Authority:**

(C5) **Tendering Entity name:**

(C6) **Tender Exchange Rate:** Pula EU GBP

(C7) **Specified local content** 90%

Note: VAT to be excluded from all calculations

Calculation of local content							
Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value- net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
	16mm ² 4 core PVC/SWA/ECC/PVC cable						
	10mm ² 2 core PVC/SWA/ECC/PVC cable						
	4mm ² 2 core PVC/SWA/ECC/PVC cable						
	PVC insulated 1000V grade hard drawn copper wire drawn into trunking/conduit and coloured as per phase: 2.5mm ²						
	trunking/conduit and coloured as per phase: 4mm ²						
	trunking/conduit and coloured as per phase: 6mm ²						

Tender summary			
Commodity Qty	Total Commodity value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)
91			
86			
54			
523			
960			
1 575			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Signature of tenderer from Annex B

Date: _____



Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)

Tender No.

HOAC_VAR_0000030176

(D2)

Tender description:

Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(D3)

Designated Products:

Electrical & Telecom Cables 90%

(D4)

Tender Authority:

(D5)

Tendering Entity name:

(D6)

Tender Exchange Rate:

Pula

EU

GBP

Note: VAT to be excluded from all calculations

A. Exempted imported content

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)

(D19) Total exempt imported value R 0

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)

(D32) Total imported value by tenderer R 0

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

			Calculation of foreign currency payments		Summary of payments
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	Local value of payments
					(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party					
(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above					

Signature of tenderer from Annex B

Date:

This total must correspond with Annex C - C 23

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	HOAC_VAR_0000030176	Note: VAT to be excluded from all calculations
(E2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard	
(E3)	Designated products:	Electrical & Telecom Cables 90%	
(E4)	Tender Authority:		
(E5)	Tendering Entity name:		

Local Products (Goods, Services and Works)	Description Raw Material items purchased	Local Supplier Name	Manufacturer Contact Details	Value
	<i>(E6)</i>	<i>(E7)</i>		<i>(E8)</i>
	16mm² 4 core PVC/SWA/ECC/PVC cable			
	10mm² 2 core PVC/SWA/ECC/PVC cable			
	4mm² 2 core PVC/SWA/ECC/PVC cable			
	PVC insulated 1000V grade hard drawn copper wire drawn into trunking/conduit and coloured as per phase: 2.5mm²			
	trunking/conduit and coloured as per phase: 4mm²			
	trunking/conduit and coloured as per phase: 6mm²			
		\$		
(E9) TotalRaw Materials (Goods, Services and Works)				R O

(E10)	Manpower costs	(Tenderer's manpower cost)		R 0
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)		R 0
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)		R 0
			(E13) Total local content	R 0
			This total must correspond with Annex C - C24	

Signature of tenderer from Annex B

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1) Tender No. HOAC_VAR_0000030176

(C2) Tender description: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(C3) Designated product(s) Pumps, Medium Voltage (MV) Motor and Associated Accessories 70%

(C4) Tender Authority:

(C5) Tendering Entity name:

(C6) Tender Exchange Rate: Pula EU GBP

(C7) Specified local content 70%

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value- net of exempted imported content	Imported value	Local value	Local content % (per item)	Commodity Qty	Total Commodity value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	Centrifugal diesel pump set for hydrants: 3600L/Min @ 1020KPa including electrical annunciator pannels							1			
	Jockey pump, hydrant system, 800KPa including electrical annunciator pannels							1			

(C20) Total tender value

Signature of tenderer from Annex B

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Date: _____

Tender Number: HOAC_VAR_0000030176

Description of the Works : Design, Monitoring and Commissioning of a Fire Hydrant System in Bayhead Marshalling YardTransnet



Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1) Tender No.	HOAC_VAR_0000030176			Note: VAT to be excluded from all calculations
(D2) Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard			
(D3) Designated Products:	Pumps, Medium Voltage (MV) Motor and Associated Accessories 70%			
(D4) Tender Authority:				
(D5) Tendering Entity name:				
(D6) Tender Exchange Rate:	Pula		EU	GBP

A. Exempted imported content

Calculation of imported content										Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)

(D19) Total exempt imported value R 0

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

Calculation of imported content										Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)

(D32) Total imported value by tenderer R 0

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

			Calculation of foreign currency payments		Summary of payments
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	Local value of payments
					(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party					
(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above					R 0

Signature of tenderer from Annex B

Date: _____

This total must correspond with
Annex C - C 23

Local Content Declaration - Supporting Schedule to Annex C

Note: VAT to be excluded from all calculations

(E9) TotalRaw Materials (Goods, Services and Works)	R 0
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(E13) Total local content	R 0
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This total must correspond with Annex C - C24

Date: _____

Annex C

Local Content Declaration - Summary Schedule

(C1) **Tender No.** HOAC_VAR_0000030176

(C2) **Tender description:** Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(C3) **Designated product(s)** Steel Value Added Products 100%

(C4) **Tender Authority:**

(C5) **Tendering Entity name:**

(C6) **Tender Exchange Rate:** Pula EU GBP

(C7) **Specified local content 100%**

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value- net of exempted imported content	Imported value	Local value	Local content % (per item)	Commodity Qty	Total Commodity value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	Mild steel of various diameter bars							1.36			
	High yield stress steel of various diameter bars							5.45			
	Mild steel of various diameter bars							4.55			
	High tensile steel of various diameter bars							18.21			
	Ref 245 high tensile steel mesh							0.39			
	Ref 245 high tensile steel mesh							0.06			
	Pipe leg 2:250mm diameter hydrant delivery main							692			
	250mm diameter delivery main from pump to house legs 1&2 transition							24			
	80mm diameter hydrant stand pipes FH1 to FH11							11			
	80mm diameter hydrant stand pipes FH12 to FH21							25			
	(HDPE Pipes) Pipe leg 1 north							673			
	(HDPE Pipes) Pipe leg 2 south							450			
	90 degree long radius elbows: 250mm diameter							13			
	Tees: 250mm diameter x 250mm x 80mm							12			
	Steel piped flanges: 90 degree long radius elbows: 250mm diameter							17			
	Roller Shutter Doors										
	Mild steel bars (various diameter bars)							0.26			
	High tensile steel (various diameter bars)							0.79			

(C20) Total tender value

Signature of tenderer from Annex B

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Date:

Tender Number: HOAC_VAR_0000030176

Description of the Works : Design, Monitoring and Commissioning of a Fire Hydrant System in Bayhead Marshalling YardTransnet



Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	Tender No.	HOAC_VAR_0000030176		
(D2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard		
(D3)	Designated Products:	Steel Value Added Products 100%		
(D4)	Tender Authority:			
(D5)	Tendering Entity name:			
(D6)	Tender Exchange Rate:	Pula	EU	GBP

Note: VAT to be excluded from all calculations

A. Exempted imported content

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)

(D19) Total exempt imported value R 0

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)

(D32) Total imported value by tenderer R 0

C. Imported by a 3rd party and supplied to the Tenderer

C. Imported by a 3rd party and supplied to the Tenderer				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

D. Other foreign currency payments			Calculation of foreign currency payments		Summary of payments	
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	Local value of payments	
(D46)	(D47)	(D48)	(D49)	(D50)	(D51)	
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party						
(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above						R 0

Signature of tenderer from Annex B

Date: _____

This total must correspond with Annex C - C
23

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1) Tender No.

HOAC_VAR_0000030176

(E2) Tender description:

Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(E3) Designated products:

Steel Value Added Products 100%

(E4) Tender Authority:

(E5) Tendering Entity name:

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description Raw Material items purchased	Local Supplier Name	Manufacturer Contact Details	Value
	(E6)	(E7)	(E8)	
	Mild steel of verious dimeter bars			
	High yield stress steel of verious dimeter bars			
	High tenstile steel of veroius dimeter bars			
	Ref 245 high tenstile steel mesh			
	Pipe leg 2:250mm diameter hydrant delivery main			
	250mm diameter delivery main from pump to house legs 1&2 transition			
	80mm diameter hydrant stand pipes FH1 to FH11			
	80mm diameter hydrant stand pipes FH12 to FH21			
	(HDPE Pipes) Pipe leg 1 north			
	(HDPE Pipes) Pipe leg 2 south			
	90 egree long radius elbows: 250mm diameter			
	Tees: 250mm diameter x 250mm x 80mm			
	Roller Shutter Doors			
	(E9) TotalRaw Materials (Goods, Services and Works)			R 0

(E10) Manpower costs

(Tenderer's manpower cost)

R 0

(E11) Factory overheads

(Rental, depreciation & amortisation, utility costs, consumables etc.)

R 0

(E12) Administration overheads and mark-up

(Marketing, insurance, financing, interest etc.)

R 0

(E13) Total local content

R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date:



Annex C

Local Content Declaration - Summary Schedule

(C1) Tender No.

HOAC_VAR_0000030176

(C2) Tender description:

Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(C3) Designated product(s)

Plastic Pipes 100%

(C4) Tender Authority:

(C5) Tendering Entity name:

(C6) Tender Exchange Rate:

Pula

EU

GBP

(C7) Specified local content 100%

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value- net of exempted imported content	Imported value	Local value	Local content % (per item)	Commodity Qty	Total Commodity value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	90 degree long radius elbow: 250mm diameter							13			
	Tees: 250mm diameter x 250mm x 80mm							12			

Signature of tenderer from Annex B

Date:

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	Tender No.	HOAC_VAR_0000030176				Note: VAT to be excluded from all calculations	
(D2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard					
(D3)	Designated Products:	Plastic Pipes 100%					
(D4)	Tender Authority:						
(D5)	Tendering Entity name:						
(D6)	Tender Exchange Rate:	Pula		EU		GBP	

Calculation of imported content

[illegible]

(D19) Total exempt imported value	R 0
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**This total must correspond with
Annex C - C 21**

Calculation of imported content

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
(D32) Total imported value by tenderer											R O

(D32) Total imported value by tenderer	R 0
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C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

			Calculation of foreign currency payments			
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange		Summary of payments
(D46)	(D47)	(D48)	(D49)	(D50)		Local value of payments
						(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party						
(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above						

Signature of tenderer from Annex B

Date: _____

This total must correspond with Annex C - C 23

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	HOAC_VAR_0000030176	Note: VAT to be excluded from all calculations
(E2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard	
(E3)	Designated products:	Plastic Pipes 100%	
(E4)	Tender Authority:		
(E5)	Tendering Entity name:		

Local Products (Goods, Services and Works)	Description Raw Material items purchased	Local Supplier Name	Manufacturer Contact Details	Value
	(E6)	(E7)	(E8)	
	90 degree long radius elbow: 250mm diameter			
	Tees: 250mm diameter x 250mm x 80mm			
	s			
	(E9) TotalRaw Materials (Goods, Services and Works)			R 0

(E10)	Manpower costs	(Tenderer's manpower cost)		R 0
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)		R 0
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)		R 0
			(E13) Total local content	R 0
This total must correspond with Annex C - C24				

Signature of tenderer from Annex B

Date:

(C1)	Tender No.	HOAC_VAR_0000030176	
(C2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard	
(C3)	Designated product(s)	PVC Pipes 100%	
(C4)	Tender Authority:		
(C5)	Tendering Entity name:		
(C6)	Tender Exchange Rate:	Pula <input type="text"/>	EU <input type="text"/>
(C7)	Specified local content 100%		

Pula	EU	GBP
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(C20) Total tender value			
(C21) Total Exempt imported content			
/ Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

Date: _____

Tender Number: HOAC_VAR_0000030176

Description of the Works: : Design, Monitoring and Commissioning of a Fire Hydrant System in Bayhead Marshalling YardTransnet

**Annex D****Imported Content Declaration - Supporting Schedule to Annex C**

(D1)	Tender No.	HOAC_VAR_0000030176		Note: VAT to be excluded from all calculations
(D2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Mars		
(D3)	Designated Products:	PVC Pipes 100%		
(D4)	Tender Authority:			
(D5)	Tendering Entity name:			
(D6)	Tender Exchange Rate:	Pula	EU	GBP

A. Exempted imported content

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)

(D19) Total exempt imported value R 0

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)

(D32) Total imported value by tenderer R 0

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

			Calculation of foreign currency payments		Summary of payments
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	Local value of payments
					(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party					

Signature of tenderer from Annex B

Date: _____

(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above R 0

This total must correspond with
Annex C - C 23

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1) Tender No.

HOAC_VAR_0000030176

(E2) Tender description:

Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(E3) Designated products:

PVC Pipes 100%

(E4) Tender Authority:

(E5) Tendering Entity name:

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description Raw Material items purchased	Local Supplier Name	Manufacturer Contact Details	Value
	(E6)	(E7)		(E8)
	80mm uPVC rainwater pipes			
	110mm hard PVC sleeves			
	110mm hard PVC sleeves			
	75mm hard PVC sleeves			
	75mm hard PVC sleeves			
	25mm PVC conduit fixed to soffit			
	25mm PVC conduit installed in brickwork/slab			
	25mm PVC conduit installed surface mounted			
	65mm PVC round box for 25mm conduit			
	(E9) TotalRaw Materials (Goods, Services and Works)			R 0

(E10) Manpower costs

(Tenderer's manpower cost)

R 0

(E11) Factory overheads

(Rental, depreciation & amortisation, utility costs, consumables etc.)

R 0

(E12) Administration overheads and mark-up

(Marketing, insurance, financing, interest etc.)

R 0

(E13) Total local content

R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1) **Tender No.** HOAC_VAR_0000030176

(C2) **Tender description:** Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(C3) **Designated product(s)** High Density polyethylene (HDPE) Pipes 100%

(C4) **Tender Authority:**

(C5) **Tendering Entity name:**

(C6) **Tender Exchange Rate:** Pula EU GBP

(C7) **Specified local content 70%**

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value- net of exempted imported content	Imported value	Local value	Local content % (per item)	Commodity Qty	Total Commodity value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	Dust screen 2m high, of suitable timber framing with HDPE knitted shade cloth stapled on one side, including corners, ends, etc.							50			
	250mm HDPE PE100 Class 16 pipe to SANS 4427 Part 2 (Pipe leg 1 (North)							673			
	250mm HDPE PE100 Class 16 pipe to SANS 4427 Part 2 (Pipe leg 2 (South)							450			
	Air valves complete assemblies of HDPE pipes							8			
	(Transition Couplings)250mm diameter HDPE to steel pipes							7			
	(Transition Couplings)80mm diameter HDPE to hydrant stand pipe							12			
	HDPE flanged of electrofusion welded(90 degree long radius elbows: 250mm diameter)							13			
	HDPE flanged of electrofusion welded(Tees: 250mm diameter x 250mm x 80mm)							12			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Signature of tenderer from Annex B

Date: _____

Imported Content Declaration - Supporting Schedule to Annex C

Note: VAT to be excluded from all calculations

A. Exempted imported content

Calculation of imported content

(D19) Total exempt imported value	R 0
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**This total must correspond with
Annex C - C 21**

B. Imported directly by the Tenderer

Calculation of imported content

(D32) Total imported value by tenderer	R 0
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C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

			Calculation of foreign currency payments			
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	Summary of payments	Local value of payments
(D46)	(D47)	(D48)	(D49)	(D50)		(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party						
(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above						R 0

Signature of tenderer from Annex B

Date: _____

This total must correspond with Annex C - C 23

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)

Tender No.

HOAC_VAR_0000030176

(E2)

Tender description:

Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(E3)

Designated products:

High Density polyethylene (HDPE) Pipes 100%

(E4)

Tender Authority:

(E5)

Tendering Entity name:

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description Raw Material items purchased	Local Supplier Name	Manufacturer Contact Details	Value
	(E6)	(E7)		(E8)
	Dust screen 2m high, of suitable timber framing with HDPE knitted shade cloth stapled on one side, including corners, ends, etc.			
	250mm HDPE PE100 Class 16 pipe to SANS 4427 Part 2 (Pipe leg 1 (North)			
	250mm HDPE PE100 Class 16 pipe to SANS 4427 Part 2 (Pipe leg 2 (South)			
	Air valves complete assemblies of HDPE pipes			
	(Transition Couplings)250mm diameter HDPE to steel pipes			
	(Transition Couplings)80mm diameter HDPE to hydrant stand pipe			
	HDPE flanged of electrofusion welded(90 degree long radius elbows: 250mm diameter)			
	HDPE flanged of electrofusion welded(Tees: 250mm diameter x 250mm x 80mm)			
	(E9) TotalRaw Materials (Goods, Services and Works)			R 0

(E10)

Manpower costs

(Tenderer's manpower cost)

R 0

(E11)

Factory overheads

(Rental, depreciation & amortisation, utility costs, consumables etc.)

R 0

(E12)

Administration overheads and mark-up

(Marketing, insurance, financing, interest etc.)

R 0

(E13) Total local content

R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date:

Annex C

Local Content Declaration - Summary Schedule

(C1) **Tender No.** HOAC_VAR_0000030176
(C2) **Tender description:** Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard
(C3) **Designated product(s)** Galvanized Steel 100%
(C4) **Tender Authority:**
(C5) **Tendering Entity name:**
(C6) **Tender Exchange Rate:** Pula EU GBP
(C7) **Specified local content 100%**

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value- net of exempted imported content	Imported value	Local value	Local content % (per item)	Commodity Qty	Total Commodity value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	Steel Plate: 100mmx10mm thick steel plate fixed to reinforced concrete wall with 'Prostruct 617 NS' non sag-epoxy adhesive (or equally approved) All steel to be hot dipped galvanized, with top of all reinforced concrete to be rendered smooth prior to fixing.							0.66			
	M10 galvanized HD Anchor studs with embedment length 100mm with chemical motar							44			
	Galvanised Sectional Tank - 400kL Capacity: 1.22mx6w, 1.22mx4Hx1.22mx10L							1			
	150mm wide medium duty galvanised welded cable ladder							12			
	150mm wide light duty galvanised welded cable ladder T-piece							2			
	150mm wide light duty galvanised welded cable ladder 4-way-piece							1			
	150mm wide light duty galvanised welded cable ladder riser piece							2			
	100x50 galvanised box							2			
	100x50 galvanised box							2			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Signature of tenderer from Annex B

Date:

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	Tender No.	HOAC_VAR_0000030176		
(D2)	Tender description:	Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marsh		
(D3)	Designated Products:	Galvanized Steel 100%		
(D4)	Tender Authority:			
(D5)	Tendering Entity name:			
(D6)	Tender Exchange Rate:	Pula		EU

Note: VAT to be excluded from all calculations

Calculation of imported content

[illegible]

(D19) Total exempt imported value	R 0
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**This total must correspond with
Annex C - C 21**

Calculation of imported content

[illegible]

(D32) Total imported value by tenderer	R 0
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C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party											R 0

D. Other foreign currency payments

			Calculation of foreign currency payments		Summary of payments
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	Local value of payments
					(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party					
(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above					R 0

Signature of tenderer from Annex B

Date: _____

This total must correspond with
Annex C - C 23

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1) Tender No.

HOAC_VAR_0000030176

(E2) Tender description:

Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

(E3) Designated products:

Galvanized Steel 100%

(E4) Tender Authority:

(E5) Tendering Entity name:

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description Raw Material items purchased	Local Supplier Name	Manufacturer Contact Details	Value
	(E6)	(E7)		(E8)
	Steel Plate: 100mmx10mm thick steel plate fixed to reinforced concrete wall with 'Prostruct 617 NS' non sag-epoxy adhesive (or equally approved) All steell to be hot dipped galvanized, with top of all reinforced concrete to be rendered smooth prior to fixing.			
	M10 galvanized HD Anchor studs with embedment length 100mm with chemical motar			
	Galvanised Sectional Tank - 400kL Capacity: 1.22mx6w, 1.22mx4Hx1.22mx10L			
	150mm wide medium duty galvanised welded cable ladder			
	150mm wide light duty galvanised welded cable ladder T-piece			
	150mm wide light duty galvanised welded cable ladder 4-way-piece			
	150mm wide light duty galvanised welded cable ladder riser piece			
	100x50 galvanised box			
	100x50 galvanised box			
	(E9) TotalRaw Materials (Goods, Services and Works)			R 0

(E10) Manpower costs

(Tenderer's manpower cost)

R 0

(E11) Factory overheads

(Rental, depreciation & amortisation, utility costs, consumables etc.)

R 0

(E12) Administration overheads and mark-up

(Marketing, insurance, financing, interest etc.)

R 0

(E13) Total local content

R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date:

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

T2.2-2: Evaluation Schedule: Programme

Note to tenderers:

Programme

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

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

The tenderer shall provide the proposed programme, at a minimum **Level 2** showing the following:

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

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

The scoring of the Programme will be as follows:

	Programme
No Response (score 0)	<ul style="list-style-type: none"> Bidder has not submitted the required information/ cannot be rated.
Very Poor (20%)	<ul style="list-style-type: none"> Programme without Work Breakdown Structure (WBS) Contract period not as per contract data;
Poor (40%)	<ul style="list-style-type: none"> Programme and Work Breakdown Structure (WBS) not complete or does not represent a clear understanding of the project requirements; Contract period not as per contract data; <p>Software programme used not Primavera.</p>
Satisfactory (60%)	<ul style="list-style-type: none"> Programme and Work Breakdown Structure (WBS) complete and corresponds to method statement with minor discrepancies; Contract period as per contract data Software programme used (Primavera) Starting Date, Key Dates, Planned Completion Date & Completion Date
Good (80%)	<ul style="list-style-type: none"> Programme and Work Breakdown Structure (WBS) complete and corresponds to method statement; Level 2 schedule that is Resource and Cost loaded Contract period as per contract data Software programme used (Primavera) Starting Date, Key Dates, and Planned Completion Date & Completion Date clearly stated. Requirements as listed in the NEC3, ECC, and clause 31.
Very good (100%)	<ul style="list-style-type: none"> Programme and Work Breakdown Structure (WBS) very well understood and presented, complete and corresponds to method statement. Level 2 schedule that is Resource and Cost loaded. Contract period as per contract data. Software programme used (Primavera) Starting Date, Key Dates, and Planned Completion Date & Completion Date clearly stated. Requirements as listed in the NEC3, ECC, and clause 31. All activities to be logically tied using critical path method (CPM).

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

Attached submissions to this schedule:

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Signed

Date

Name

Position

Tenderer

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

T2.2-7: Evaluation Schedule - Management & CV's of Key Personnel

The tender must be able to demonstrate that the project personnel have sufficient knowledge, experience and qualifications to provide the required services and submit the following documents as a minimum with the tender:

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

As a minimum each CV should address the following, but not limited to;

- i. Personal particulars
 - a. Name
 - b. Place (s) of tertiary education and dates associated therewith
 - c. Professional awards
- ii. Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)
- iii. Name of current employer and position in enterprise
- iv. Overview of post graduate experience (year, organization and position)
- v. Outline of recent assignments / experience that has a bearing on the Scope of Works

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

No Response (score 0)	<ul style="list-style-type: none"> • Bidder has not submitted the required information/ cannot be rated.
Very Poor (20%)	<ul style="list-style-type: none"> • Key staff does not have relevant levels of general experience and qualifications. • Project Manager, Construction Manager and Installation Technician have less than two years of experience • Foremen/Planner/ Safety officers/ Environmental officer and Quality office have less than two years of experience
Poor (40%)	<ul style="list-style-type: none"> • Project Manager, Construction Manager and Installation Technician have two or more years but less than or equal to four years of experience • Foremen/Planner/ Safety officers/ Environmental officer and Quality office have more than or equal to two but less than or equal to three years of experience • Key staff has limited levels of project specific education, skills, training • Organisation chart showing five out of eight onsite and off-site key staff
Satisfactory (60%)	<ul style="list-style-type: none"> • Project Manager, Construction Manager and Installation Technician have more than four but less than or equal to seven years of experience • Foremen/Planner/ Safety officers/ Environmental officer and Quality office have more than three but less than or equal to four years of experience. • Key staff has reasonable levels of project specific education, skills, training • Organisation chart showing six out of eight onsite and off-site key staff
Good (80%)	<ul style="list-style-type: none"> • Project Manager, Construction Manager and Installation Technician have more than seven years but less than ten years of experience • Foremen/Planner/ Safety officers/ Environmental officer and Quality office have more than four but less than 5 years' experience. Key staff has extensive levels of project specific education, skills, training • Key staff has extensive knowledge of issues pertinent to the project • Organisation chart showing seven out of eight onsite and off-site key staff
Very good (100%)	<ul style="list-style-type: none"> • Project Manager, Construction Manager and Installation Technician have more than ten years of experience • Foremen/Planner/ Safety officers/ Environmental officer and Quality office have more than five years of experience • Key staff has outstanding levels of project specific education, skills, training All relevant and required professional registration/certification are provided. • Organisation chart showing eight out of eight onsite and off-site key staff

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

Attached submissions to this schedule:

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Signed	Date
Name	Position
Tenderer		

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

T2.2-20: Evaluation Schedule – Quality Management

The tenderer is to note that if successful, and awarded the contract, shall execute and complete the contract as per the Quality Management Standard.

The tenderer shall submit the following list below of Quality Management requirements but not be limited to:

- Project Quality Plan which satisfies the technical and quality requirements of the *works*, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with the Works Information.
- Project specific Quality data book index.
- Valid ISO 9001 Certification
- Index/List of procedures
- Quality Control Plans (QCP's) for each task specific to the Works Information
- A signed Quality Policy based on International Organisation for Standardisation
- CV of Quality Manager and Quality Officer (s) with technical experience.

The scoring of the Quality Management will be as follows:

No Response (score 0)	<ul style="list-style-type: none"> • Bidder has not submitted the required information/ cannot be rated.
Very Poor (20%)	<ul style="list-style-type: none"> • Tenderer shows a limited understanding of the quality management requirements and is not ISO 9001 Certified
Poor (40%)	<ul style="list-style-type: none"> • Tenderer shows a limited understanding of the quality management requirements and is ISO 9001 Certified
Satisfactory (60%)	<ul style="list-style-type: none"> • Tenderer shows a reasonable understanding of the quality management requirements and is ISO 9001 Certified • Quality Management Plan indicating the quality manager who will be managing the quality on site.
Good (80%)	<ul style="list-style-type: none"> • Tenderer shows a good understanding of the quality management requirements and is ISO 9001 Certified • Quality Management Plan indicating the quality manager who will be managing the quality and ensure that all material and equipment quality checked. • Quality Control Plan including all activities that will be done on site according to the method statement.
Very good (100%)	<ul style="list-style-type: none"> • Tenderer shows an outstanding understanding of the quality management requirements and is ISO 9001 Certified • Quality Management Plan indicating the quality manager who will be managing the quality and ensure that all material and equipment quality checked. • Quality Control Plan including all activities that will be done on site according to the method statement. • Project Quality Plan showing all the quality practices, resources and sequence of activities relevant to the project including hold points

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

Attached submissions to this schedule:

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Signed	Date
Name	Position
Tenderer		

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

T2.2-21: Evaluation Schedule: Environmental Management

The Tenderer must review the following documents for context to meet the environmental requirements, namely:

- a) Transnet SOC Limited – Environmental Risk Management Policy;
- b) Project Environmental Specification (PES) which comprises of the following as a minimum:
 - Standard Operating Procedure for Construction Environmental Management
 - Minimum Standards for Construction Environmental Management
 - Transnet Policies

Where applicable, the following may also apply:

- Any other operational/maintenance environmental plans or specifications
-
1. The tenderer must provide evidence of how their Environmental Management System (EMS) will ensure conformance to the abovementioned requirements.
 2. The tenderer must provide an environmental policy signed by Top Management which, as a minimum:
 - Is appropriate given the purpose and context of the tenderer's business;
 - Includes a commitment to fulfil the tenderer's environmental compliance (legal) obligations;
 - Includes a commitment to the protection of the environment, including prevention of pollution;
 - Provides framework for setting environmental objectives; and
 - Includes a commitment to continual improvement of their EMS;
 3. The tenderer must provide an Organisational Chart depicting key environmental staff and the chart must be accompanied by CV's showing staff competencies, experience and qualifications relevant to project environmental management functions.
 4. The tenderer must provide a list of projects where environmental duties of a similar nature have been executed including a brief description of such duties together with client reference contact details.
 5. The tenderer must return a signed declaration of understanding (ENV-FAT-0002) as a measure that they understand the environmental conformance requirements specific to the project.

By signing this Tender Schedule, the tenderer confirms that they will comply with the above requirements and in particular Transnet policy statements and environmental specifications.

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

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

Score 0	<ul style="list-style-type: none"> The tenderer has submitted no information
Score 20	Environmental staff generally have less than one year relevant experience; Policy only responds to one to two of the items listed under two above; Tenderer has only completed one project of similar nature; EMS indicates Tenderer has a poor understanding of the Scope, Tenderer has submitted no declaration of understanding
Score 40	<ul style="list-style-type: none"> Environmental staff generally have between one and five years' relevant experience; Policy only responds to three - four items listed under 2 above; Tenderer has only completed two projects of similar nature; EMS indicates Tenderer has a less than acceptable understanding of the Scope, declaration of understanding submitted but not signed by Management or Environmental Personnel.
Score 60	<ul style="list-style-type: none"> Tenderer shows a reasonable understanding of the quality management requirements and is ISO 9001 Certified Quality Management Plan indicating the quality manager who will be managing the quality on site.
Score 80	<ul style="list-style-type: none"> Environmental staff generally have between eight and ten years' relevant experience; Policy responds to all items listed under two above and includes additional commitments to environmental performance; Tenderer has only completed four projects of similar nature; EMS indicates Tenderer has a more than acceptable understanding of the Scope, declaration of understanding submitted and signed by Management or Environmental Personnel.
Score 100	<ul style="list-style-type: none"> Environmental staff generally have more than ten years' relevant experience; Policy responds to all items listed under two above, includes additional commitments to environmental performance and has been certified according to international best practice standards; Tenderer has only completed five or more projects of similar nature; EMS indicates Tenderer has an excellent understanding of the Scope: declaration of understanding submitted and signed by Management or Environmental Personnel.

Score 0	No response
Score 20	Poor
Score 40	Less than Acceptable
Score 60	Acceptable
Score 80	Above Acceptable
Score 100	Excellent

*As per defined Evaluation Criteria

DECLARATION OF UNDERSTANDING

PROJECT NAME:		DOCUMENT NO:	
PROJECT NO:		DATE:	
CONTRACTOR:		CONTRACT NO:	

I,

(Name)

(Designation)

(Representing)

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

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

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

T2.2-22: Evaluation Schedule: Health and Safety Management

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

1. Contract specific Health & Safety plan including the following:
 - a. Roles and responsibilities of legal appointees in terms of OHSA 85 of 1993 and its Regulations.
 - i. S16.1 CEO,
 - ii. S16.2 Assistant to CEO,
 - iii. CR8.1 Construction manager,
 - iv. CR8.2 Assistant Construction manager,
 - v. CR8.5 Construction Health & Safety officer,
 - vi. CR8.7 Construction Supervisor,
 - vii. CR8.8 Construction assistant supervisor,
 - viii. CR9.1 Risk Assessor
 - ix. Construction Health & Safety Manager
 - b. Valid Letter/s of Good Standing with the Workmen's compensation fund (Letters of Good Standing from all members of a newly formed JV).
 - c. Safety, Health & Environmental Company Policy signed by the accounting officer. Indicating as minimum the following five elements -
 - i. Commitment to Safety, prevention of pollution,
 - ii. Continual improvement,
 - iii. Compliance to legal requirements, appropriate to the nature of contractor's activities,
 - iv. Hold management accountable for development of the safety systems
 - v. Include objectives and targets.
 - d. Overview of Tenderer's SHE system for project
2. Overview of the tenderer's Risk Assessment methodology, and submission of risk assessments indicating major activities of the works and how the risks will be addressed and mitigated.
3. Synopsis of Health & Safety incidents, description, type and action taken to prevent re-occurrence and submission of completed cost breakdown sheet within the three years.

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

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

No Response (score 0)	<ul style="list-style-type: none"> Bidder has not submitted the required information/ cannot be rated.
Very Poor (20%)	<ul style="list-style-type: none"> Tenderer shows a limited understanding of the health and safety management requirements Valid letter of good standing with insurance body.
Poor (40%)	<ul style="list-style-type: none"> Tenderer shows a limited understanding of the health and safety management requirements Valid letter of good standing with insurance body. Safety, Health & Environmental policies Overview of RA process and examples
Satisfactory (60%)	<ul style="list-style-type: none"> Tenderer shows a reasonable understanding of the health and safety management requirements Valid letter of good standing with insurance body. Safety, Health & Environmental policies Overview of RA process and examples <p>CV's, Roles and responsibilities and competency of legal appointees,</p> <ul style="list-style-type: none"> Sec 16.2 Supervisor/s SHE Rep/s First Aider Safety Officer
Good (80%)	<ul style="list-style-type: none"> Tenderer shows a good understanding of the health and safety management requirements Valid letter of good standing with insurance body. Safety, Health & Environmental policies <p>CV's, Roles and responsibilities and competency of legal appointees,</p> <ul style="list-style-type: none"> Sec 16.2 Supervisor/s SHE Rep/s First Aider Safety Officer Overview of tenders SHE plan for the project. Overview of RA process and examples
Very good (100%)	<ul style="list-style-type: none"> Tenderer shows an outstanding understanding of the health and safety management requirements and has accreditation (e.g. OHS18001, NOSA, etc.) Valid letter of good standing with insurance body. Safety, Health & Environmental policies <p>CV's, Roles and responsibilities and competency of legal appointees,</p> <ul style="list-style-type: none"> Sec 16.2 Supervisor/s SHE Rep/s First Aider Safety Officer <p>Overview of tenders SHE plan for the project.</p> <ul style="list-style-type: none"> Overview of RA process and examples. Construction Safety Work Method Statement

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

Attached submissions to this schedule:

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Signed	Date
Name	Position
Tenderer		

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

Health, Safety Questionnaire

1. SAFE WORK PERFORMANCE

1A. Injury Experience / Historical Performance - Alberta

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

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

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

1B. Workers' Compensation Experience

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

Industry Code:	Industry Classification:
Year	
Industry Rate	
Contractor Rate	
% Discount or Surcharge	
Is your Workers' Compensation account in good standing? (Please provide letter of confirmation)	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

2. CITATIONS

2A.	Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:
2B.	Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide details:

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

3. CERTIFICATE OF RECOGNITION

Does your company have a Certificate of Recognition?

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

Do you have a written safety program manual?

☐ Yes ☐ No

If Yes, provide a copy for review

Do you have a pocket safety booklet for field distribution?

☐ Yes ☐ No

If Yes, provide a copy for review

Does your safety program contain the following elements:

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

5. TRAINING PROGRAM5A. Do you have an orientation program for new hire employees? ☐ Yes ☐ No

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

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

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5B. Do you have a program for training newly hired or promoted supervisors? <input type="checkbox"/> Yes <input type="checkbox"/> No					
(If Yes, submit an outline for evaluation. Does it include instruction on the following:					
	Yes	No		Yes	No
EMPLOYER RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	SAFETY COMMUNICATION	<input type="checkbox"/>	<input type="checkbox"/>
EMPLOYEE RESPONSIBILITIES	<input type="checkbox"/>	<input type="checkbox"/>	FIRST AID/MEDICAL PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>
DUE DILIGENCE	<input type="checkbox"/>	<input type="checkbox"/>	NEW WORKER TRAINING	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY LEADERSHIP	<input type="checkbox"/>	<input type="checkbox"/>	ENVIRONMENTAL REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>
WORK REFUSALS	<input type="checkbox"/>	<input type="checkbox"/>	HAZARD ASSESSMENT	<input type="checkbox"/>	<input type="checkbox"/>
INSPECTION PROCESSES	<input type="checkbox"/>	<input type="checkbox"/>	PRE-JOB SAFETY INSTRUCTION	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	DRUG & ALCOHOL POLICY	<input type="checkbox"/>	<input type="checkbox"/>
INCIDENT INVESTIGATION	<input type="checkbox"/>	<input type="checkbox"/>	PROGRESSIVE DISCIPLINARY POLICY	<input type="checkbox"/>	<input type="checkbox"/>
SAFE WORK PROCEDURES	<input type="checkbox"/>	<input type="checkbox"/>	SAFE WORK PRACTICES	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY MEETINGS	<input type="checkbox"/>	<input type="checkbox"/>	NOTIFICATION REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>

6. SAFETY ACTIVITIES

Do you conduct safety inspections? Yes No Weekly Monthly Quarterly

☐ ☐ ☐ ☐ ☐

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

Who follows up on inspection action items? _____

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

Yes No Daily Weekly Biweekly

☐ ☐ ☐ ☐ ☐

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

Yes No Weekly Biweekly Monthly

☐ ☐ ☐ ☐ ☐

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

Is the process documented? ☐ Yes ☐ No

Who leads the discussion? _____

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

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

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

☐ Yes ☐ No

How does your company measure its H&S success?

- Attach separate sheet to explain

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Marshalling Yard**7. SAFETY STEWARDSHIP**

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

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

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

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

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

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

7D Does your company track non-injury incidents?

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

8 PERSONNEL

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

Name	Position/Title	Designation

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

Name	Address	Telephone Number

Other responsibilities:

9 REFERENCES

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

Name and Company	Address	Phone Number

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T2.2-25: Evaluation Schedule: Previous Experience

Note to tenderers:

Tenderers are required to demonstrate their experience over the last five years in similar projects, areas, conditions and circumstances in relation to the scope of work, and to this end shall supply a sufficiently detailed reference list with contact details of existing customers and indicate their previous experience.

- Company's previous experience in similar project similar projects, areas, conditions and circumstances in relation to the Works Information.
- Number of projects completed within the last 5 years.
- Contract values of Projects Completed.

The scoring of the Company's Previous Experience will be as follows:

No Response (score 0)	<ul style="list-style-type: none"> • Bidder has not submitted the required information/ cannot be rated.
Very Poor (20%)	<ul style="list-style-type: none"> • Bidder has successfully completed 1 similar Project. • One written references in a letter head has been provided. • Main Contractor has less 2 years of experience
Poor (40%)	<ul style="list-style-type: none"> • Bidder has successfully completed 2-3 similar Project. • One written references in a letter head has been provided. • Main Contractor has more than 2 but less than 3 years of experience
Satisfactory (60%)	<ul style="list-style-type: none"> • Bidder has successfully completed 3-4 similar Projects • One written references in a letter head have been provided. • Main Contractor has more than three but less than 4 years of experience
Good (80%)	<ul style="list-style-type: none"> • Bidder has successfully completed 4-5 similar Projects. • Two written references in a letter head have been provided. • Main Contractor has less than five but more than four years of experience • Relevance of experience(comparable/similar projects)
Very good (100%)	<ul style="list-style-type: none"> • Bidder has successfully completed more than 6 similar Projects. • Availability of equipment and other resources. • Main Contractor has more than 6 years' experience. • Confirmation of tender clarification attendance. • 5Relevance of experience(comparable/similar projects)

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

[illegible]

Date

Position

Tenderer

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Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

T2.2-37: Evaluation Schedule: Method Statement

Method statement

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

1. Technical approach and methodology.
2. Understanding.
3. Overall packing and presentation.
4. Risk analysis.

The scoring of the Method Statement will be as follows:

	Method Statement
No Response (score 0)	<ul style="list-style-type: none"> Bidder has not submitted the required information/ cannot be rated.
Very Poor (20%)	<ul style="list-style-type: none"> The methodology approach; work alignment to project schedule is poorly presented.
Poor (40%)	<ul style="list-style-type: none"> The methodology approach; work alignment to project schedule is poorly presented, generic and not tailored to address the specific project objectives and methodology. Clause by Clause compliance to specification
Satisfactory (60%)	<ul style="list-style-type: none"> Bidder has submitted a method statement with minor omissions and/or irregularities Clause by Clause compliance to specification
Good (80%)	<ul style="list-style-type: none"> Bidder has submitted an exceptional method statement: Approach clearly articulated and based on this project; Work aligned with project schedule; The proposed construction methodology will ensure that operations will not be disrupted; and The method Statement covers all the aspects of the project Clause by Clause compliance to specification
Very good (100%)	<ul style="list-style-type: none"> Bidder has submitted an exceptional method statement: Approach clearly articulated and based on this project; Work aligned with project schedule; The proposed construction methodology will ensure that operations will not be disrupted; and Besides meeting the "good" rating, the important issues are approached in an innovative and efficient way, indicating that the bidder has outstanding knowledge of state-of-the-art approaches. Clause by Clause compliance to specification

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Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

Signed

.....

.....

Name

.....

Position

.....

Tenderer

.....

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

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

Tenderers are also to evaluate any risk/s stated by the *Employer* in Contract Data Part C1, and provide possible mitigation thereof.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is a vertical margin line on the left side, creating a narrow left margin. The paper appears to be from a notebook or a standard ruled document.

Part T2: Returnable Schedules
T2.2-3: Risk Elements

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

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

[illegible]

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T2.2-14: Authority to submit a Tender

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

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

A. Certificate for Company

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

Signed

Date

Name

Position

Chairman of the Board of Directors

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B. Certificate for PartnershipWe, the undersigned, being the **key partners** in the business trading as _____

_____ hereby authorise Mr/Ms _____

acting in the capacity of _____, to sign all documents in

connection with the tender offer for Contract _____ and any

contract resulting from it on our behalf.

Name	Address	Signature	Date

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

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C. Certificate for Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise

Mr/Ms _____, an authorised signatory of the company

_____, acting in the capacity of lead

partner, to sign all documents in connection with the tender offer for Contract _____

_____ and any contract resulting from it on our behalf.

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

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

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

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D. Certificate for Sole Proprietor

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

Signed

Date

Name

Position

Sole Proprietor

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T2.2-16: Record of Addenda to Tender Documents

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

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

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T2.2-17: Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

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

Section 1: Name of enterprise: _____

Section 2: VAT registration number, if any: _____

Section 3: CIDB registration number, if any: _____

Section 4: CSD number: _____

Section 5: Particulars of sole proprietors and partners in partnerships

Name	Identity number	Personal income tax number

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

Section 6: Particulars of companies and close corporations

Company registration number _____

Close corporation number _____

Tax reference number: _____

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

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

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

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

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

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

Signed		Date	
Name	_____	Position	_____
Enterprise name	_____		

SBD 4**DECLARATION OF INTEREST**

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

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

¹“State” means –

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

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SBD 4**2. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

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

2.2 Identity Number: _____

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

2.4 Company Registration Number: _____

2.5 Tax Reference Number: _____

2.6 VAT Registration Number: _____

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

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

YES / NO

2.7.1 If so, furnish the following particulars:

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

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

- Position occupied in the state institution:

Any other particulars:

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

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SBD 4

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

YES / NO

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

YES / NO

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

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

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

YES / NO

2.8.1 If so, furnish particulars:

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

YES / NO

2.8.2 If so, furnish particulars.

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SBD 4

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

YES/NO

2.9.1 If so, furnish particulars.

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

YES/NO

2.10.1 If so, furnish particulars:

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

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

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SBD 4

4 DECLARATION

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

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

Signature

Date

Position

Name of bidder

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

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

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

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
- the 80/20 system for requirements with a Rand value of below R50 000 000 (all applicable taxes included)
- 1.2 The value of this bid is estimated to **be below** R50 000 000 (all applicable taxes included) and therefore the **80/20** preference point system shall be applicable.
- 1.3 Preference points for this bid shall be awarded for:
- (a) Price; and
 - (b) B-BBEE Status Level of Contribution.
- 1.4 The maximum points for this bid are allocated as follows:

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

- 1.5 Failure on the part of a bidder to submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System [SANAS], or a sworn affidavit confirming annual turnover and level of black ownership in case of all EMEs and QSEs with 51% black ownership or more together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (c) **"B-BBEE status level of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **"CIPC"** means the Companies and Intellectual Property Commission, formerly known as CIPRO, the Companies and Intellectual Property Registration Office.
- (g) **"comparative price"** means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;
- (h) **"consortium or joint venture"** means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;
- (i) **"contract"** means the agreement that results from the acceptance of a bid by an organ of state;
- (j) **"EME"** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (k) **"firm price"** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- (l) **"functionality"** means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- (m) **"non-firm prices"** means all prices other than "firm" prices;

-
- (n) **"person"** includes a juristic person;
 - (o) **"QSE"** means a Qualifying Small Enterprise as defined by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
 - (p) **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
 - (q) **"sub-contract"** means the primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;
 - (r) **"total revenue"** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007;
 - (s) **"trust"** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
 - (t) **"trustee"** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

3. ADJUDICATION USING A POINT SYSTEM

- 3.1 The bidder obtaining the highest number of total points will be awarded the contract.
- 3.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 3.3 Points scored must be rounded off to the nearest 2 decimal places.
- 3.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 3.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.
- 3.6 Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

4. POINTS AWARDED FOR PRICE

4.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20

or

90/10

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

Where

P_s = Points scored for comparative price of bid under consideration

P_t = Comparative price of bid under consideration

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

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

- 5.1 In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

- 5.2 A bidder who qualifies as a EME in terms of the B-BBEE Act must submit a sworn affidavit confirming Annual Total Revenue and Level of Black Ownership. Furthermore EMEs may also obtain a sworn affidavit from CIPC (formerly CIPRO) Self Service Terminals when registering a business or filing annual returns. In these instances Transnet would require proof of turnover as well as proof of ownership. Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at www.dti.gov.za/economic_empowerment/bee_codes.jsp.

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- 5.3 QSEs that are at least 51% Black owned or higher are only required to obtain a sworn affidavit on an annual basis confirming that the entity has an Annual Total Revenue of R50 million or less and the entity's Level of Black ownership.
- 5.4 A Bidder other than EME or a QSE that is at least 51% Black owned must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Verification Agency accredited by SANAS.
- 5.5 A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 5.6 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- 5.7 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 5.8 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- 5.9 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.
- 5.10 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

6. BID DECLARATION

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

7. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 5.1

- 7.1 B-BBEE Status Level of Contribution: . = (maximum of 10 or 20 points)

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(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or a sworn affidavit.

8. SUB-CONTRACTING

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

(***Tick applicable box***)

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

8.1.1 If yes, indicate:

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

(***Tick applicable box***)

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

9. DECLARATION WITH REGARD TO COMPANY/FIRM

9.1 Name of company/firm: _____

9.2 VAT registration number: _____

9.3 Company registration number: _____

9.4 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

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9.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional service provider
- ☐ Other service providers, e.g. transporter, etc.

[*TICK APPLICABLE BOX*]

9.7 Total number of years the company/firm has been in business: _____

9.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraph 7 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....
SIGNATURE(S) OF TENDERER(S)

DATE:

ADDRESS

.....

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

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

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	hard copy of the Register to facsimile number (012) 3265445.		
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

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SBD 8

CERTIFICATION

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

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

Signature

Date

Position

Name of Tenderer

CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Standard Bidding Document (SBD) must form part of all bids/quotes³ invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).⁴ Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
3. Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - (a) disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - (b) cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
4. This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

³ Includes price quotations, advertised competitive bids, limited bids and proposals.

⁴ Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

SBD 9

CERTIFICATE OF INDEPENDENT QUOTATION/PROPOSAL DETERMINATION

I, the undersigned, in submitting the accompanying quote:

(Quote Number and Description)

in response to the invitation for the quote made by:

(Name of Institution)

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

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

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

SBD 9

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium⁵ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

⁵ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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

Signature

Date

Position

Name of bidder

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T2.2-31 Service Provider Integrity Pact

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

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

INTEGRITY PACT

Between

TRANSNET SOC LTD

Registration Number: 1990/000900/30

("Transnet")

and

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

Enquiry Number: J.R350AA.1.08.002

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

PREAMBLE

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

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

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

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

1 OBJECTIVES

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

2 COMMITMENTS OF TRANSNET

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

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

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

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

3 OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER

- 3.1 The Tenderer / Service Provider / Contractor commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its Tender or during any ensuing contract stage in order to secure the contract or in furtherance to secure it and in particular the Tenderer / Service Provider / Contractor commits to the following:
 - a) The Tenderer / Service Provider / Contractor will not, directly or through any other person or firm, offer, promise or give to Transnet or to any of Transnet's employees involved in the tendering process or to any third person any material or other benefit or payment, in order to obtain in exchange an advantage during the tendering process; and
 - b) The Tenderer / Service Provider / Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any employee of Transnet, connected directly or indirectly with the tendering process, or to any person, organisation or

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third party related to the contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the contract.

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

- a) the gift does not exceed R1 000 (one thousand Rand) in retail value;
- b) many low retail value gifts do not exceed R 1 000 within a 12 month period;
- c) hospitality packages do not exceed R5 000 in value or many low value hospitality packages do not cumulatively exceed R5 000;
- d) a Tenderer / Service Provider does not give a Transnet employee more than 2 (two) gifts within a 12 (twelve) month period, irrespective of value;
- e) a Tenderer / Service Provider does not accept more than 1 (one) gift in excess of R750 (seven hundred and fifty Rand) from a Transnet employee within a 12 (twelve) month period, irrespective of value;
- f) a Tenderer / Service Provider may under no circumstances, accept from or give to, a Transnet employee any gift, business courtesy, including an invitation to a business meal and /or drinks, or hospitality package, irrespective of value, during any Tender evaluation process, including a period of 12 (twelve) months after such tender has been awarded, as it may be perceived as undue and improper influence on the evaluation process or reward for the contract that has been awarded; and
- g) a Tenderer / Service Provider may not offer gifts, goods or services to a Transnet employee at artificially low prices, which are not available to the public at those prices.

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

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

3.5 The Tenderer / Service Provider / Contractor will not commit any criminal offence under the relevant anti-corruption laws of South Africa or any other country.

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Furthermore, the Tenderer /Service Provider will not use for illegitimate purposes or for restrictive purposes or personal gain, or pass on to others, any information provided by Transnet as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- 3.6 A Tenderer / Service Provider / Contractor of foreign origin shall disclose the name and address of its agents or representatives in South Africa, if any, involved directly or indirectly in the registration or tendering process. Similarly, the Tenderer / Service Provider / Contractor of South African nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the registration or tendering process.
- 3.7 The Tenderer / Service Provider / Contractor will not misrepresent facts or furnish false or forged documents or information in order to influence the tendering process to the advantage of the Tenderer / Service Provider or detriment of Transnet or other competitors.
- 3.8 The Tenderer / Service Provider / Contractor shall furnish Transnet with a copy of its code of conduct, which code of conduct shall reject the use of bribes and other dishonest and unethical conduct, as well as compliance programme for the implementation of the code of conduct.
- 3.9 The Tenderer / Service Provider / Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4 INDEPENDENT TENDERING

- 4.1 For the purposes of that Certificate in relation to any submitted Tender, the Tenderer declares to fully understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - a) has been requested to submit a Tender in response to this Tender invitation;
 - b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
 - c) provides the same Goods and Services as the Tenderer and/or is in the same line of business as the Tenderer.
- 4.2 The Tenderer has arrived at his submitted Tender independently from, and without consultation, communication, agreement or arrangement with any

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competitor. However communication between partners in a joint venture or consortium will not be construed as collusive tendering.

- 4.3 In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- a) prices;
 - b) geographical area where Goods or Services will be rendered [market allocation];
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a Tender;
 - e) the submission of a Tender which does not meet the specifications and conditions of the RFP; or
 - f) tendering with the intention of not winning the Tender.
- 4.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Goods or Services to which his/her tender relates.
- 4.5 The terms of the Tender as submitted have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.
- 4.6 Tenderers are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [**NPA**] for criminal investigation and/or may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.
- 4.7 Should the Tenderer find any terms or conditions stipulated in any of the relevant documents quoted in the Tender unacceptable, it should indicate which conditions are unacceptable and offer alternatives by written submission on its company letterhead, attached to its submitted Tender. Any such submission shall be subject

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to review by Transnet's Legal Counsel who shall determine whether the proposed alternative(s) are acceptable or otherwise, as the case may be.

5 DISQUALIFICATION FROM TENDERING PROCESS

- 5.1 If the Tenderer / Service Provider / Contractor has committed a transgression through a violation of section 3 of this Integrity Pact or in any other form such as to put its reliability or credibility as a Tenderer / Service Provider into question, Transnet may reject the Tenderer's / Service Provider's / Contractor's application from the registration or tendering process and remove the Tenderer / Service Provider from its database, if already registered.
- 5.2 If the Tenderer / Service Provider / Contractor has committed a transgression through a violation of section 3, or any material violation, such as to put its reliability or credibility into question. Transnet may after following due procedures and at its own discretion also exclude the Tenderer / Service Provider / Contractor from future tendering processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, which will include amongst others the number of transgressions, the position of the transgressors within the company hierarchy of the Tenderer / Service Provider / Contractor and the amount of the damage. The exclusion will be imposed for up to a maximum of 10 (ten) years. However, Transnet reserves the right to impose a longer period of exclusion, depending on the gravity of the misconduct.
- 5.3 If the Tenderer / Service Provider / Contractor can prove that it has restored the damage caused by it and has installed a suitable corruption prevention system, or taken other remedial measures as the circumstances of the case may require, Transnet may at its own discretion revoke the exclusion or suspend the imposed penalty.

6 TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)

- 6.1 All the stipulations around Transnet's blacklisting process as laid down in Transnet's Supply Chain Policy and Procurement Procedures Manual are included herein by way of reference. Below follows a condensed summary of this blacklisting procedure.
- 6.2 Blacklisting is a mechanism used to exclude a company/person from future business with Transnet for a specified period. The decision to blacklist is based on one of the grounds for blacklisting. The standard of proof to commence the

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blacklisting process is whether a "*prima facie*" (i.e. on the face of it) case has been established.

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

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

6.5 Grounds for blacklisting include: If any person/Enterprise which has submitted a Tender, concluded a contract, or, in the capacity of agent or subcontractor, has been associated with such Tender or contract:

a) Has, in bad faith, withdrawn such Tender after the advertised closing date and time for the receipt of Tenders;

b) has, after being notified of the acceptance of his Tender, failed or refused to sign a contract when called upon to do so in terms of any condition forming part of the Tender documents;

c) has carried out any contract resulting from such Tender in an unsatisfactory manner or has breached any condition of the contract;

d) has offered, promised or given a bribe in relation to the obtaining or execution of the contract;

e) has acted in a fraudulent or improper manner or in bad faith towards Transnet or any Government Department or towards any public body, Enterprise or person;

f) has made any incorrect statement in a certificate or other communication with regard to the Local Content of his Goods or his B-BBEE status and is unable to prove to the satisfaction of Transnet that:

(i) he made the statement in good faith honestly believing it to be correct; and

(ii) before making such statement he took all reasonable steps to satisfy himself of its correctness;

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- g) caused Transnet damage, or to incur costs in order to meet the contractor's requirements and which could not be recovered from the contractor;
- h) has litigated against Transnet in bad faith.

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

7 PREVIOUS TRANSGRESSIONS

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

8 SANCTIONS FOR VIOLATIONS

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

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- b) Immediately cancel the contract, if already awarded or signed, without giving any compensation to the Tenderer / Service Provider / Contractor;
- c) Recover all sums already paid by Transnet;
- d) Encash the advance bank guarantee and performance bond or warranty bond, if furnished by the Tenderer / Service Provider / Contractor, in order to recover the payments, already made by Transnet, along with interest;
- e) Cancel all or any other contracts with the Tenderer / Service Provider; and
- f) Exclude the Tenderer / Service Provider / Contractor from entering into any Tender with Transnet in future.

9 CONFLICTS OF INTEREST

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

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

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

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

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

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

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

9.4 The Tenderer / Service Provider / Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any committee member or any person involved in the sourcing process,

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where this is done, Transnet shall be entitled forthwith to rescind the contract and all other contracts with the Tenderer / Service Provider / Contractor.

10 MONITORING

10.1 Transnet will be responsible for appointing an independent Monitor to:

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

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

11 EXAMINATION OF FINANCIAL RECORDS, DOCUMENTATION AND/OR ELECTRONIC DATA

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

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

12 DISPUTE RESOLUTION

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

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

13 GENERAL

- 13.1 This Integrity Pact is governed by and interpreted in accordance with the laws of the Republic of South Africa.
- 13.2 The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the law relating to any civil or criminal proceedings.
- 13.3 The validity of this Integrity Pact shall cover all the tendering processes and will be valid for an indefinite period unless cancelled by either Party.
- 13.4 Should one or several provisions of this Integrity Pact turn out to be invalid the remainder of this Integrity Pact remains valid.
- 13.5 Should a Tenderer / Service Provider / Contractor be confronted with dishonest, fraudulent or corruptive behaviour of one or more Transnet employees, Transnet expects its Tenderer / Service Provider / Contractor to report this behaviour directly to a senior Transnet official / employee or alternatively by using Transnet's "Tip-Off Anonymous" hotline number 0800 003 056, whereby your confidentiality is guaranteed.

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

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T2.2-33 NON-DISCLOSURE AGREEMENT

[..... 2020]

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

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

TRANSNET SOC LTD

(Registration No. 1990/000900/30), a company incorporated and existing under the laws of South Africa, having its principal place of business at 2nd Floor, Waterfall Business Estate, 9 Country Estate Drive, Midrand, 1662, South Africa

and

.....

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

.....

.....

WHEREAS

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

IT IS HEREBY AGREED

1. INTERPRETATION

In this Agreement:

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

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

2. CONFIDENTIAL INFORMATION

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

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- 2.5 In the event that any Confidential Information shall be copied, disclosed or used otherwise than as permitted under this Agreement then, upon becoming aware of the same, without prejudice to any rights or remedies of the Disclosing Party, the Receiving Party shall as soon as practicable notify the Disclosing Party of such event and if requested take such steps [including the institution of legal proceedings] as shall be necessary to remedy [if capable of remedy] the default and/or to prevent further unauthorised copying, disclosure or use.
- 2.6 All Confidential Information shall remain the property of the Disclosing Party and its disclosure shall not confer on the Receiving Party any rights, including intellectual property rights over the Confidential Information whatsoever, beyond those contained in this Agreement.

3. RECORDS AND RETURN OF INFORMATION

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

4. ANNOUNCEMENTS

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

5. DURATION

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

6. PRINCIPAL

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

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7. ADEQUACY OF DAMAGES

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

8. PRIVACY AND DATA PROTECTION

- 8.1 The Receiving Party undertakes to comply with South Africa's general privacy protection in terms Section 14 of the Bill of Rights in connection with this Tender and shall procure that its personnel shall observe the provisions of such Act [as applicable] or any amendments and re-enactments thereof and any regulations made pursuant thereto.
- 8.2 The Receiving Party warrants that it and its Agents have the appropriate technical and organisational measures in place against unauthorised or unlawful processing of data relating to the Tender and against accidental loss or destruction of, or damage to such data held or processed by them.

9. GENERAL

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

Signed

Date

Name

Position

Tenderer

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T2.2-36: RFP DECLARATION FORM

NAME OF COMPANY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this tender and the requirements requested from tenderers in responding to this tender have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below:

[Respondent to indicate if this section is not applicable]

FULL NAME OF OWNER/MEMBER/DIRECTOR/

PARTNER/SHAREHOLDER:

ADDRESS:

Indicate nature of relationship with Transnet:

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

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

6. We accept that any dispute pertaining to this tender will be resolved through the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).
7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of the Ombudsman without having to follow a formal court process to have such award or decision set aside.
8. We have acquainted ourselves and agree with the content of T2.2-31 "Service Provider Integrity Pact".

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

IMPORTANT NOTICE TO TENDERERS

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of tenders exceeding R5,000,000.00 (five million S.A. Rand) in value. Should a Tenderer have any material concern regarding an tender process which meets this value threshold, a complaint may be lodged with Transnet's Procurement Ombudsman for further investigation.
- It is incumbent on the Tenderer to familiarise himself/herself with the Terms of Reference for the Transnet Procurement Ombudsman, details of which are available for review at Transnet's website www.transnet.net.

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- An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to procurement.ombud@transnet.net
 - For transactions below the R5,000,000.00 (five million S.A. Rand) threshold, a complaint may be lodged with the Chief Procurement Officer of the relevant Transnet Operating Division.
 - All Tenderers should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a tenderer on its List of Excluded Bidders.

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T2.2-43: REQUEST FOR PROPOSAL – BREACH OF LAW

NAME OF COMPANY: _____

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

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

NATURE OF BREACH:

DATE OF BREACH:

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

Signed on this _____ day of _____ 20____

SIGNATURE OF TENDER

T2.2-51 Certificate of Acquaintance with Tender DocumentsNAME OF TENDERING ENTITY:

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

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-
- a) prices;
 - b) geographical area where Services will be rendered [market allocation]
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a Tender;
 - e) the submission of a tender which does not meet the specifications and conditions of the tender; or
 - f) Tendering with the intention not winning the tender.
-
7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this tender relates.
 8. The terms of the accompanying tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.
 9. I/We am/are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [NPA] for criminal investigation. In addition, Tenderers that submit suspicious tenders may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signed on this _____ day of _____ 20____

SIGNATURE OF TENDERER

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T2.2-9: Insurance provided by the *Contractor*

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

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

Insurance against (See clause 84.2 of the ECC)	Name of Insurance Company	Cover	Premium
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract			
Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R5 000 000.			
Insurance in respect of loss of or damage to own property and equipment.			

T2.2-34 SUPPLIER DECLARATION FORM

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

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

General Terms and Conditions:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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**SUPPLIER DECLARATION FORM****Supplier Declaration Form**

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

CSD Number (MAAA xxxxxxx):

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

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

Your Current Company's VAT Registration Status	
VAT Registration Number	
If Exempted from VAT registration , state reason and	

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

Company Banking Details	Bank Name	
Universal Branch Code	Bank Account Number	

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

Company Contact Person Name	
Designation	
Telephone	
Email	

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

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

Does your company have a valid proof of B-BBEE status?										Yes		No	
Please indicate your Broad Based BEE status (Level 1 to 9)					1	2	3	4	5	6	7	8	9
Majority Race of Ownership													
% Black Ownership		% Black Women Ownership		% Black Disabled person(s) Ownership		% Black Youth Ownership							

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% Black Unemployed		% Black People Living in Rural Areas		% Black Military Veterans			
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Please Note: Please provide proof of B-BBEE status as per Appendix C and D:

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

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

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Agreed plan that will be crafted with the supplier in regards to their development (It could be for ED OR SD in terms of their developmental needs they may require with the company).	*If Yes- Attach supporting documents
ENTERPRISE DEVELOPMENT BENEFICIARY A supplier that is not as yet in our value chain that we are assisting in their developmental area.	YES <input type="radio"/> NO <input type="radio"/>
SUPPLIER DEVELOPMENT BENEFICIARY A supplier that we are already doing business with or transacting with and we are also assisting them assisting them in their developmental area e.g. (They might require training or financial assistance etc.)	YES <input type="radio"/> NO <input type="radio"/>
GRADUATION FROM ED TO SD BENEFICIARY When a supplier that we assisted with as an ED beneficiary then gets awarded a business and we start Transacting with.	YES <input type="radio"/> NO <input type="radio"/>
ENTERPRISE DEVELOPMENT RECIPIENT A supplier that isn't in our value chain as yet but we have assisted them with an ED intervention	YES <input type="radio"/> NO <input type="radio"/>

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

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**APPENDIX B**Affidavit or Solemn Declaration as to VAT registration status

Affidavit or Solemn Declaration

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

Signature:

Designation:

Date:

Commissioner of Oaths

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

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

Commissioner of Oaths

APPENDIX C**SWORN AFFIDAVIT – B-BBEE QUALIFYING SMALL ENTERPRISE – GENERAL**

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.

2. I am a Member / Director / Owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	
Trading Name (If Applicable):	
Registration Number:	
Enterprise Physical Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	
Nature of Business:	
Definition of "Black People"	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or

	ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
Definition of "Black Designated Groups"	<p>Black Designated Groups means:</p> <ul style="list-style-type: none"> (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"

3. I hereby declare under Oath that:

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

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- Black Military Veterans % = _____%

- Based on the Financial Statements/Management Accounts and other information available on

the latest financial year-end of _____, the annual Total Revenue was

between

R10,000,000.00 (Ten Million Rands) and R50,000,000.00 (Fifty Million Rands),

- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

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

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.

5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature

.....

Date

.....

Commissioner of Oaths

Signature & stamp

TRANSNET FREIGHT RAIL

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**APPENDIX D****SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE – GENERAL**

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

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

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

Definition of "Black People"	<p>As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians –</p> <p>(a) who are citizens of the Republic of South Africa by birth or descent;</p> <p>or</p> <p>(b) who became citizens of the Republic of South Africa by naturalisationi-</p> <p>i. before 27 April 1994; or</p> <p>ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"</p>
Definition of "Black Designated Groups"	<p>"Black Designated Groups means:</p> <p>(a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution;</p> <p>(b) Black people who are youth as defined in the National Youth Commission Act of 1996;</p> <p>(c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act;</p> <p>(d) Black people living in rural and under developed areas;</p> <p>(e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"</p>

3. I hereby declare under Oath that:

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

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- The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- Black Designated Group Owned % Breakdown as per the definition stated above:
- Black Youth % = _____%
- Black Disabled % = _____%
- Black Unemployed % = _____%
- Black People living in Rural areas % = _____%
- Black Military Veterans % = _____%
- Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of _____, the annual Total Revenue was R10,000,000.00 (Ten Million Rands) or less
- Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**

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

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.

5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature

.....

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**Date**

.....

Commissioner of Oaths

Signature & stamp

VENDOR REGISTRATION DOCUMENTS CHECKLIST

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

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

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9. BBBEE certificate and detailed scorecard from a SANAS Accredited Verification Agency and/or Sworn Certified Affidavit.		
10. Central Supplier Database (CSD) Summary Registration Report.		

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C1.1: Form of Offer & Acceptance

Offer

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

Design, Monitoring and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

The tenderer, identified in the Offer signature block, has

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

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

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

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

Signature(s)

Name(s)

Capacity

**For the
Tenderer:**

Name &
signature of
witness

Date

Tenderer's CIDB registration number:

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Acceptance

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

The terms of the contract, are contained in:

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

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

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

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

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

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

TRANSNET FREIGHT RAIL



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Signature(s)

Name(s)

Capacity

**for the
Employer**

Transnet Freight Rail
15 Girton Road
Inyanda House 2
Park Town
Johannesburg
2001

Name &
signature of
witness

Date

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Schedule of Deviations

Note:

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

No.	Subject	Details
1		
2		
3		

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

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

	For the Tenderer:	For the Employer
Signature	_____	_____
Name	_____	_____
Capacity	_____	_____
On behalf of	_____	Transnet Freight Rail 15 Girton Road Inyanda House 2 Park Town Johannesburg 2001
Name & signature of witness	_____	_____
Date	_____	_____

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C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X2 Changes in the law
		X7: Delay damages
		X16: Retention
		X18: Limitation of liability
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)	
10.1	The <i>Employer</i> is:	Transnet SOC Ltd (Registration No. 1990/000900/30)
	Address	Registered address: Transnet Freight Rail 15 Girton Road Inyanda House 2 Park Town Johannesburg 2001
	Having elected its Contractual Address for the purposes of this contract as:	Transnet Freight Rail 15 Girton Road Inyanda House 2 Park Town Johannesburg 2001

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Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

10.1	The <i>Project Manager</i> is: (Name)	Audrit Mayenetja
	Address	Transnet Freight Rail 15 Girton Road Inyanda House 2 Park Town Johannesburg 2001
	Tel	(011) 308 3636
	e-mail	Audrit.Mayenetja@transnet.net
10.1	The <i>Supervisor</i> is: (Name)	Rina Maupa
	Address	Transnet Freight Rail 15 Girton Road Inyanda House 2 Park Town Johannesburg 2001
	Tel No.	(011) 308 4336
	e-mail	Rina.maupa@transnet.net
11.2(13)	The <i>works</i> are	Design, Monitoring and Commissioning a Fire Hydrant System in Bayhead Marshalling Yard
11.2(14)	The following matters will be included in the Risk Register	Deep Excavations
11.2(15)	The <i>boundaries of the site</i> are	As stated in Part C4.1."Description of the Site and its surroundings"
11.2(16)	The Site Information is in	Part C4
11.2(19)	The Works Information is in	Part C3
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	2 weeks
2	The <i>Contractor's</i> main responsibilities	No additional data is required for this section of the <i>conditions of contract</i>.
3	Time	

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11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	15 December 2022	
30.1	The <i>access dates</i> are	Part of the Site	Date
		1 Bayhead Marshalling yard	10 December 2021
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.	
31.2	The <i>starting date</i> is	03 January 2022	
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	4 weeks.	
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.		
4	Testing and Defects		
42.2	The <i>defects date</i> is	52 (fifty-two) weeks after Completion of the whole of the <i>works</i>.	
43.2	The <i>defect correction period</i> is	2 weeks	
5	Payment		
50.1	The <i>assessment interval</i> is monthly on the	25th (twenty fifth) day of each successive month.	
51.1	The <i>currency of this contract</i> is the	South African Rand.	
51.2	The period within which payments are made is	Payment will be effected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.	
51.4	The <i>interest rate</i> is	the prime lending rate of Standard Bank of South Africa.	
6	Compensation events		
60.1(13)	The <i>weather measurements</i> to be recorded for each calendar month are,	the cumulative rainfall (mm)	

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the number of days with rainfall more than 10 mm

the number of days with minimum air temperature less than 0 degrees Celsius

the number of days with snow lying at 08:00 hours South African Time

and these measurements: Not Applicable

The place where weather is to be recorded (on the Site) is:

The ***Contractor's*** Site establishment area

The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:

Durban

and which are available from:

South African Weather Service 012 367 6023 or info3@weathersa.co.za.

7	Title	No additional data is required for this section of the <i>conditions of contract</i>.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	None
84.1	The <i>Employer</i> provides these insurances from the Insurance Table	
	1 Insurance against:	Loss of or damage to the <i>works</i>, Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.
	Cover / indemnity:	to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are:	as stated in the insurance policy for Contract Works / Public Liability

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

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-
- 84.1 The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is
- The *Contractor* provides these additional Insurances
- The *Contractor* must comply at a minimum with the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.**
- 1 Where the contract requires that the design of any part of the *works* shall be provided by the *Contractor* the *Contractor* shall satisfy the *Employer* that professional indemnity insurance cover in connection therewith has been affected**
 - 2 Where the contract involves manufacture, and/or fabrication of Plant & Materials, components or other goods to be incorporated into the *works* at premises other than the site, the *Contractor* shall satisfy the *Employer* that such plant & materials, components or other goods for incorporation in the *works* are adequately insured during manufacture and/or fabrication and transportation to the site.**
 - 3 Should the *Employer* have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the *Contractor's* policies of insurance as well as those of any sub-*Contractor***
 - 4 Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R 5 000 000.**

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		<p>5 The insurance coverage referred to in 1, 2, 3 and 4 above shall be obtained from an insurer(s) in terms of an insurance policy approved by the <i>Employer</i>. The <i>Contractor</i> shall arrange with the insurer to submit to the <i>Project Manager</i> the original and the duplicate original of the policy or policies of insurance and the receipts for payment of current premiums, together with a certificate from the insurer or insurance broker concerned, confirming that the policy or policies provide the full coverage as required. The original policy will be returned to the <i>Contractor</i>.</p>
84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract for any one event is	<p>Whatever the <i>Contractor</i> requires in addition to the amount of insurance taken out by the <i>Employer</i> for the same risk.</p>
84.2	The insurance against loss of or damage to the works, Plant and Materials as stated in the insurance policy for contract works and public liability selected from:	<p>Principal Controlled Insurance policy for Contract</p>
9	Termination	<p>There is no additional Contract Data required for this section of the <i>conditions of contract</i>.</p>
10	Data for main Option clause	
B	Priced contract with Bill of Quantities	<p>No additional data is required for this Option.</p>
60.6	The <i>method of measurement</i> is	<p>SANS 1200A Standards as published by South African National Standards.</p>

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11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the <i>Adjudicator</i>, the chairperson of the Association of Arbitrators will appoint an <i>Adjudicator</i>.
W1.2(3)	The <i>Adjudicator nominating body</i> is:	The Chairman of the Association of Arbitrators (Southern Africa)
	If no <i>Adjudicator nominating body</i> is entered, it is:	the Association of Arbitrators (Southern Africa)
W1.4(2)	The <i>tribunal</i> is:	Arbitration
W1.4(5)	The <i>arbitration procedure</i> is	The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)
	The place where arbitration is to be held is	Johannesburg, South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	The Chairman of the Association of Arbitrators (Southern Africa)
	- if the arbitration procedure does not state who selects an arbitrator, is	
12	Data for secondary Option clauses	
X2	Changes in the law	No additional data is required for this Option
X7	Delay damages	
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	R5000 per day
X16	Retention	
X16.1	The retention free amount is	NIL
	The retention percentage is	10% on all payments certified.
X18	Limitation of liability	

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X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	Nil
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	The deductible of the relevant insurance policy
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to:	The cost of correcting the Defect
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	The Total of the Prices
X18.5	The <i>end of liability date</i> is	5 years after Completion of the whole of the works
Z	<i>Additional conditions of contract</i> The <i>additional conditions of contract</i> are:	
Z1	Additional clause relating to Performance Bonds and/or Guarantees	
Z1.1	The Performance Guarantee under X13 above shall be an irrevocable, on-demand performance guarantee, to be issued exactly in the form of the Pro Forma documents provided for this purpose under C1.3 (Forms of Securities), in favour of the <i>Employer</i> by a financial institution reasonably acceptable to the <i>Employer</i> .	
Z2	Obligations in respect of Joint Venture Agreements	

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2.1

Insert the additional core clause 27.5

27.5. In the instance that the *Contractor* is a joint venture, the *Contractor* shall provide the *Employer* with a certified copy of its signed joint venture agreement, and in the instance that the joint venture is an 'Incorporated Joint Venture,' the Memorandum of Incorporation, within 4 (four) weeks of the Contract Date.

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

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

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which and manner whereby this will be provided and/or guaranteed by the constituents from time to time;
the names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture

Z2.2		Insert additional core clause 27.6
		27.6. The <i>Contractor</i> shall not alter its composition or legal status of the Joint Venture without the prior approval of the <i>Employer</i> .
Z3	Additional obligations in respect of Termination	
Z3.1		<p>The following will be included under core clause 91.1:</p> <p>In the second main bullet, after the word 'partnership' add 'joint venture whether incorporate or otherwise (including any constituent of the joint venture)' and</p> <p>Under the second main bullet, insert the following additional bullets after the last sub-bullet:</p> <ul style="list-style-type: none"> • commenced business rescue proceedings (R22) • repudiated this Contract (R23)
Z3.2	Termination Table	<p>The following will be included under core clause 90.2 Termination Table as follows:</p> <p>Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"</p>
Z3.3		Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."
Z4	Local Content Obligations	

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Z4.1	<p>In terms of Local Production and Content (SBD 6.2), Annexure A and Annexure C of the Returnable Schedule 2.1.1 Eligibility Criteria Schedule: Declaration Certificate of Local Production and Content, the <i>Contractor</i> has undertaken to fulfil its obligations of the Local Production and Content for the following designated sectors:</p> <ul style="list-style-type: none"> 90% for Electrical & Telecom Cables 100% for Steel Value Added Products 100% for Plastic Pipes; 100% for polyvinyl Chloride (PVC) Pipes 100% for High Density polyethylene (HDPE) Pipes 100% for all Galvanized Steel 70% for Valves products and actuators 70% for Pumps, Medium Voltage (MV) Motor and Associated Accessories
Z4.2	<p>The <i>Contractor</i> is required to note that the <i>Employer</i>, the Department of Trade and Industry [DTI] and/or the body appointed by the DTI as the verification authority for local content may conduct compliance audits with regard to the Local Production and Content requirements as prescribed in Regulation 8 of the Preferential Procurement Regulations, 2017 issued in terms of the Preferential Procurement Policy Framework Act no. 5 of 2000.</p>
Z4.3	<p>The <i>Contractor</i> is required to continuously update Declarations C, D and E of the Local Production and Content Declaration commitments with the actual local content values for the duration of the contract. The <i>Contractor</i> shall report to the <i>Employer</i> on a monthly basis during the term of the Contract, the amounts spend on Local Content and Production for the designated sectors for the duration of the contract.</p>
Z4.4	<p>Breach of Local Production and Content commitments provides the <i>Employer</i> cause to terminate the contract for non-compliance.</p>

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Z4.5	Non-Compliance Penalties for Local Production and Content	The <i>Contractor</i> must refer to Schedule A attached to this Contract Data with regards to non-compliance penalties applicable to Local Production and Content.
Z5	Right Reserved by the Employer to Conduct Vetting through SSA	
Z5.1		<p>The <i>Employer</i> reserves the right to conduct vetting through State Security Agency (SSA) for security clearances of any <i>Contractor</i> who has access to National Key Points for the following without limitations:</p> <ol style="list-style-type: none"> 1. Confidential – this clearance is based on any information which may be used by malicious, opposing or hostile elements to harm the objectives and functions of an organ of state. 2. Secret – clearance is based on any information which may be used by malicious, opposing or hostile elements to disrupt the objectives and functions of an organ of state. 3. Top Secret – this clearance is based on information which may be used by malicious, opposing or hostile elements to neutralise the objectives and functions of an organ of state.
Z6	Additional Clause Relating to Collusion in the Construction Industry	The contract award is made without prejudice to any rights the <i>Employer</i> may have to take appropriate action later with regard to any declared bid rigging including blacklisting.
Z7	Protection of Personal Information Act	The <i>Employer</i> and the <i>Contractor</i> are required to process information obtained for the duration of the Agreement in a manner that is aligned to the Protection of Personal Information Act.

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C1.2 Contract Data

Part two - Data provided by the *Contractor*

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

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is	%
	The <i>subcontracted fee percentage</i> is	%
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's</i> key persons are:	
	1 Name:	
	Job:	
	Responsibilities:	
	Qualifications:	
	Experience:	
	2 Name:	
	Job	
	Responsibilities:	
	Qualifications:	
	Experience:	
		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled.....
11.2(14)	The following matters will be included in the Risk Register	
B	Priced contract with bill of quantities	
11.2(21)	The <i>bill of quantities</i> is in	
11.2(31)	The tendered total of the Prices is(in figures)

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.....(in words), excluding VAT

Data for Schedules of Cost Components**B****Priced contract with bill of quantities****Data for the Shorter Schedule of Cost Components**

41 in

The percentage for people overheads is:

%

SSCC

21 in

The published list of Equipment is the last edition of the list published by

SSCC

The percentage for adjustment for Equipment in the published list is

% (state plus or minus)

22 in

The rates of other Equipment are:

Equipment**Size or
capacity****Rate**

SSCC

61 in

The hourly rates for Defined Cost of design outside the Working Areas are

SSCC

Category of employee**Hourly rate**

62 in

The percentage for design overheads is

%

SSCC

63 in

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

SSCC

PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions: Option B	5
C2.2	The <i>bill of quantities</i>	63

C2.1 Pricing instructions: Option B

1. The *conditions of contract*

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

Clause 11 in NEC3 Engineering and Construction Contract, June 2005 and 2013 (ECC) Option B states:

**Identified
and defined
terms**

11

11.2

(21) The Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.

(28) The Price for Work Done to Date is the total of

- the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and
- a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed.

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

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

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

1.2. Function of the Bill of Quantities

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

1.3. Guidance before pricing and measuring

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

Historically bill of quantities based contracts in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of contract and methods of measurement. This is particularly apparent in the approach to the Preliminary and General bill. On the other hand, because ECC caters for a number of disciplines in the same contract, including electrical works, a different approach not currently found in local methods of measurement to the Preliminary & General bill items may have been used.

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

2. Measurement and payment

2.1. Symbols

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

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre
m ³ -km	cubic metre-kilometre
MN	meganewton

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MN.m	meganewton-metre
MPa	megapascal
No.	number
Prov sum ¹	provisional sum
PC-sum	prime cost sum
R/only	Rate only
sum	Lump sum
t	ton (1000kg)
W/day	Work day

2.2. General assumptions

- 2.2.1. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 2.2.2. The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.
- 2.2.3. Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.
- 2.2.4. Where this contract requires detailed drawings, designs or other information to be provided, and no rates or prices are included in the *bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the tendered rates and Prices in the Bill of Quantities.

¹ Provisional Sums should not be used unless absolutely unavoidable. Rather include specifications and associated bill items for the most likely scope of work, and then change later using the compensation event procedure if necessary. This is because tenderers cannot programme effectively for unknown scopes of work

- 2.2.5. An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.
- 2.2.6. The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the Bill of Quantities.
- 2.2.7. The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. More detail regarding the extent of the work entailed under each item is provided in the Works Information.

2.3. Departures from the *method of measurement*

- 2.3.1 Not Applicable

2.4. Amplification of or assumptions about measurement items

- 2.4.1 Not applicable

C2.2 The *bill of quantities*

- **BOQ**
- **Electrical Installation BOQ**

C2.2 The *bill of quantities*

- **BOQ**
- **Electrical Installation BOQ**

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead
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FIRE HYDRANT SYSTEM UPGRADE
IN BAYHEAD DURBAN

FIRE HYDRANT SYSTEM INSTALLATION

BILL OF QUANTITIES

INDEX	PAGES
GENERAL NOTES	3/2 - 3/4
BILL NO 1 - PRELIMINARY AND GENERAL	3/5
BILL NO 2 - DISTRIBUTION BOARDS AND CABLING	3/6 - 3/8
BILL No. 3 - PUMP HOUSE SMALL POWER AND LIGHTING	3/9 - 3/11
BILL NO 4 - LUMINAIRES	3/12
- SUMMARY SHEET	3/13

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

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BILL OF QUANTITIES

GENERAL NOTES

1. This Bill of Quantities forms part of, and must be read in conjunction with the complete specification and must be submitted, duly completed, on the closing date of tenders.
2. Tenderers must complete the Bill of Quantities and detail the unit rate and total amount of each item.

The "Total" shall constitute the tender price for adjudication.

Tenderers are advised to check their item extension and total additions as arithmetical errors occurring in the priced Bill of Quantities cannot be considered as having an effect on the tender amount.

3. No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made it will not be recognised but the original wording of the Bill of Quantities will be adhered to.

The Engineer will check the completed Bill of Quantities and reserves the right to adjust any individual price and to rectify any discrepancy whilst the total tender price as quoted remains unaltered.

4. The quantities given in the Bill for cable, cable markers, earth wire laid with cable, overhead conductors, overhead earth wire and excavations cannot be regarded as exact and are subject to measurement on site after completion of the service and adjustments will be made according to the unit rates given in the Bill.

All other quantities will not be measured on site.

In the event of discrepancies between the drawings, specifications and Bill of Quantities the Engineer shall decide whether the work as executed shall be remeasured on site or whether remeasurement shall be effected from the working drawings only.

5. The Bill of Quantities is to be used for pricing and financial purposes only. The drawings take precedence over the particular (project) specification but should be used in conjunction with these specifications. The Project Specification takes precedence over quality specifications and the Bill of Quantities.

NOTE:

Checking of Cable and Overhead Conductor Lengths. Notwithstanding the fact that lengths of cables and overhead conductors, as given in the Bill of Quantities, have been measured from scaled drawings, the Contractor shall check such lengths on site before ordering the cable as he will not be paid for excess cable after the completion of the service. Any allowance for off-cuts shall be made in the unit rates. The final measurements shall be based on the nett route length of the cables and overhead lines concerned, installed in accordance with the specification. However, the onus is on the Contractor to prove compliance with the specification.

6. The unit prices quoted in the Bill of Quantities shall include for such small materials as are required for the complete installation in accordance with the specification.
7. Bill No. 1 is to be regarded as fixed and will not be adjusted for variations in the final contract value or contract period.

TRANSNET FREIGHT RAIL

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NOTE:

Tenderers may not include the costs of the items of Bill No. 1 in the unit rates for items in the remainder of the Bill of Quantities. Bill No. 1 is to be completed as indicated.

Failure to comply will result in the Engineer arbitrarily adjusting rates to exclude Preliminary and General Costs.

8. Unit prices for the same items in different Bills shall in all cases be the same, and in the case of differences, the Engineer reserves the right to change such unit prices when the completed list is checked, without adjusting the tender price.
9. The total for each page of each Bill is to be carried forward to the collection page at the end of each Bill.
10. P.C., Provisional and Contingency allowances, items and sums shall be expended as directed by the Engineer, and any balance remaining shall be deducted from the amount of the contract sum. Tenderers may not regard any unspent moneys as forming part of the final contract value.

Variation Instruction No. 1 will be issued after award of the contract to omit all P.C., Provisional and Contingency sums/allowances from the contract and authorized contract value.

11. Variation work, as well as the items described above, shall be measured as executed, and paid for according to unit prices in the Bill of Quantities. Where unit prices are not available, the work shall be priced, in conjunction with the Engineer, at current rates.
12. Unless otherwise specified in the Bill of Quantities, all items are to be priced on the basis of supply, delivery, offload, installation, connection, testing and commissioning.

All prices are to be EXCLUSIVE OF V.A.T but inclusive of import duties, surcharges, commissions to third parties, etc., where applicable. The foregoing items, as well as the Contractor's handling, financing and profit mark-up, is not to be separately detailed, and must be included in the cost rates.

13. Unless otherwise stated, all measurements are net, in accordance with the drawings, and no allowance has been made for wastage.
14. The Employer reserves the right to increase or decrease the extent of the contract works, without restraint, on total value of variations issued relevant to any particular item in the Bill of Quantities, by issuing written variation instructions to omit or add, as may be required, the supply and/or installation of any item of equipment or work, whether listed in the Bill of Quantities or not, and without affecting the unit cost rates indicated in the Bill of Quantities or Preliminary and General items.
15. In the event that Tenderers disagree with the measured quantities the tender should be qualified accordingly, listing the items and quantities in question.
16. The unit prices quoted in the Bill of Quantities must include for small installation materials such as nuts, bolts, nails, saddles, screws etc. as are required for the satisfactory complete installation in accordance with the specification.
17. Unless otherwise stated in the Bill, the unit cost rates shall be based on the following:

The rate for conduit boxes and for outlet boxes up to and including 100 x 100 mm shall be the same regardless of the number of entries.

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Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead
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The rate for conduit and outlet boxes shall include for fixing to the conduit with lock and bushnuts as may be required and for fixing to the building structure.

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Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

The rate for outlet boxes shall be without covers and draw boxes shall be complete with covers and screws.

The rate for industrial switch and plug units shall include for the relevant enclosure and fixing to conduit and building structure.

The rate for light switches, switch plugs, dimmer units, etc., shall include for screws, cover plates and fuses/breakers where applicable and for connection of wiring thereto.

The rate for conduit up to and including 25 mm diameter shall include all couplings, bends, boxes etc. as may be required.

The rate for luminaires and accessories shall include for connection of the wiring thereto.

18. All measurements are based on the most economical route lengths without any allowance for wastage, threading, jointing or slack.
19. In the case of wiring in conduit, an allowance of 300 mm per wire outlet box position has been made and in the case of cables and wiring entering switchboards, an allowance of 1000 and 2000 mm has been made for termination purposes in sub-distribution and main distribution boards respectively.
20. It should be noted that, notwithstanding anything to the contrary, any items completed or listed in the Bill of Quantities by the Tenderer will not be taken into account, will not be subject to re-measurement, and will not be regarded as a Bill of Quantities item.
21. Where equipment is specified by name, the tenderer must price on this basis. Alternatives may be offered by tenderers but the use of which is subject to written approval by the Engineer.

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Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

BILL No. 1 PRELIMINARY AND GENERAL	QTY	UNIT	RATE	TOTAL
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

<p>The costs for the following items shall not be included in the cost rates for work listed in the rest of the Bill of Quantities.</p> <p>a) Cost for compliance with Main Contractor's preliminary and general items not covered below.</p> <p>b) Contractual requirements as specified, i.e guarantees, insurance, sureties, company's overheads administration etc.</p> <p>c) Contract engineer, administration, supervision, programming and management.</p> <p>d) Establish site accommodation, storage etc.</p> <p>e) Maintain and operate site establishment.</p> <p>f) Remove site establishment on completion and remove all rubbish, foundations, concrete bases, dirt oil spillage, etc, and leave site in condition as found.</p> <p>g) Tools, equipment, plant hire and testing gear/meters as necessary.</p> <p>h) Guarantee and maintainance for the complete Electrical Installation including fittings, materials and workmanship for a period of TWELVE MONTHS after date of completion and handover</p> <p>i) Allow for testing and commissioning the whole of the electrical installation as laid down in the specification and for re-testing as may be required after the making good of all defective work to the satisfaction of the Engineer</p> <p>j) 3 sets of as built drawings showing all conduit routes, draw boxes and positions of outlets etc</p> <p>k) Provision for final testing and Certificate of Compliance to be issued on completion of the project in addition to the detailed testing specified.</p> <p>l) Allow to liase with Transnet personnel to for access to existing distribution boards and isolation of same.</p>		<p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p>		
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

TOTAL FOR BILL No. 1 CARRIED TO SUMMARY PAGE
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R

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

BILL No. 2 DISTRIBUTION BOARDS AND CABLING	QTY	UNIT	RATE	TOTAL
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

DISTRIBUTION BOARDS				
Allow for the following supply, and delivery of the following distribution boards complete as specified. The Distribution boards are to be manufactured by Gamma Panels, Switchboard Manufacturers or Cato Ridge Electrical. (Price from alternative board manufacturers are to be priced separately and offered as an alternative)				
a)	Supply DB as per drawing 18058_400_0	1	No.	
DISTRIBUTION CABLING				
<u>600/1000V rated cables laid in ground or in sleeves.</u> <u>To be protected when installed vertically up wall from ground</u>				
b)	16mm ² 4 core PVC/SWA/ECC/PVC cable	91	m	
c)	Termination for 16 mm ² 4 core cable above	2	No.	
d)	10mm ² 2 core PVC/SWA/ECC/PVC cable	86	m	
e)	Termination for 10 mm ² 2 core cable above	2	No.	
f)	4mm ² 2 core PVC/SWA/ECC/PVC cable	54	m	
g)	Termination for 4 mm ² 2 core cable above	2	No.	
WIRE-WAYS				
h)	Supply 150 mm wide medium duty galvanised welded cable ladder	12	m	
i)	Extra on last to install	12	m	
j)	Supply 150 mm wide light duty galvanised welded cable ladder T- piece	2	No.	
k)	Extra on last to install	2	No.	
l)	Supply 150 mm wide light duty galvanised welded cable ladder 4-way piece	1	No.	
m)	Extra on last to install	1	No.	
n)	Supply 150 mm wide light duty galvanised welded cable ladder riser piece	2	No.	
o)	Extra on last to install	2	No.	

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

CARRIED TO COLLECTION PAGE	R
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

BILL No. 2 DISTRIBUTION BOARDS AND CABLING	QTY	UNIT	RATE	TOTAL
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

EXCAVATIONS					
<u>Excavate and Backfill Trenches</u>					
a)	Hand pickable soil	15	m ³		
b)	Intermediate material	2	m ³		
c)	In hard rock	1	m ³		
SLEEVES					
d)	Supply and install 110mm hard PVC sleeves in hard soil and tarmac. Including backfilling, cable markers etc	12	m		
e)	Supply and install 110mm hard PVC sleeves in soft pickable soil and tarmac. Including backfilling, cable markers etc	15	m		
f)	Supply and install 75mm hard PVC sleeves in hard soil and tarmac. Including backfilling, cable markers etc	22	m		
g)	Supply and install 75mm hard PVC sleeves in soft pickable soil and tarmac. Including backfilling, cable markers etc	55	m		

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

CARRIED TO COLLECTION PAGE	R
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

COLLECTION PAGE for BILL No. 2

TOTAL BROUGHT FORWARD FROM PAGE 3/6 R

TOTAL BROUGHT FORWARD FROM PAGE 3/7 R

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

TOTAL FOR BILL NO. 2 CARRIED TO SUMMARY PAGE

R

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

BILL No. 3 PUMP HOUSE SMALL POWER AND LIGHTING	QTY	UNIT	RATE	TOTAL
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

LIGHTING				
<u>Supply and Install the Following :</u>				
a) 25 mm PVC conduit fixed to soffit	26	m		
b) 25 mm PVC conduit installed in brickwork / slab	229	m		
c) 25 mm PVC conduit installed surface mounted	163	m		
<u>PVC insulated 1 000 V grade hard drawn copper wire drawn into trunking/conduit and coloured as per phase</u>				
d) 2.5 mm ²	523	m		
e) 4 mm ²	960	m		
f) 6 mm ²	1575	m		
g) Single lever 1 way 16 amp Crabtree light switch in 100 x 50 galvanised box inclusive of cover	2	No.		
h) 1 lever 2 way 16 amp Crabtree light switch or other in 100 x 50 galvanised box inclusive of cover	2	No.		
i) 5 amp unswitched socket outlet	4	No.		
j) 65mm PVC round box for 25mm conduit	3	No.		
Install the following luminaires as per drawings number 18011_600_0 :				
k) Type A	2	No.		
l) Type B	4	No.		
SMALL POWER				
m) Blank cover plate	4	No.		
n) 25 mm PVC conduit chased into brickwork	88	m m		
o) 25 mm PVC conduit cast into concrete floor	18			
<u>PVC insulated 1 000 V grade hard drawn copper wire drawn into trunking/conduit and coloured as per phase</u>		m		
p) 2.5 mm ²	1327	m		
q) 4 mm ²	961			

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

BILL No. 3 PUMP HOUSE SMALL POWER AND LIGHTING	QTY	UNIT	RATE	TOTAL
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

a)	Supply and install 20 A double pole isolator complete with cover clips in 100x100/50 conduit box	3	No.		
b)	Supply and install 20A single pole cord-grip isolator in 100x100/50 conduit box	2	No.		
c)	Supply and install 16 amp S.S.O. in 100 x 100/50 box including cover plate	3	No.		
d)	Supply and install 16 amp dedicated S.S.O. in 100 x 100/50 box including cover plate	3	No.		
e)	Supply and install recessed weatherproof outlet box for 100x100 socket outlets	1	No.		
f)	Supply and Install 100x100 16A switch socket outlet with euro	4	No.		
g)					

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

CARRIED TO COLLECTION PAGE	R
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

COLLECTION PAGE for BILL No. 3

TOTAL BROUGHT FORWARD FROM PAGE 3/9 R

TOTAL BROUGHT FORWARD FROM PAGE 3/10 R

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in
Bayhead Marshalling Yard

TOTAL FOR BILL NO. 3 CARRIED TO SUMMARY PAGE

R

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

BILL No.4 LUMINAIRES	QTY	UNIT	RATE	TOTAL
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TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

Supply and install the follovvng luminaires, inclusive of lamps as per drawing No. 18052_600_0				
a) Type A	2	No.		
b) Type B	4	No.		

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

TOTAL FOR BILL NO.4 CARRIED TO SUMMARY PAGE	R
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SUMMARY OF BILLS OF QUANTITIES

BILL NO 1	- PRELIMINARY AND GENERAL	R
BILL NO 2	- GENERAL	R
BILL NO 3	- DISTRIBUTION BOARDS AND CABLING	R
BILL NO 4	- GROUND FLOOR SMALL POWER AND LIGHTING	R
BILL NO 5	- LUMINAIRES	R

SUB TOTAL	R ADD VAT (15%)
	R

TOTAL TENDER PRICE - CARRIED TO FORM OF TENDER	R
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Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<u>SECTIONNO.1</u>				
		<u>BILL NO.1</u>				
		<u>PRELIMINARIES</u>				
		<u>(Applicationtothewhole ofthe works)</u>				
		<u>FIXEDCHARGEITEMS</u>				
		<u>ContractualRequirements</u>				
1/1/1		Head Office Management			SUM	
1/1/2		Site Supervision Staff			SUM	
1/1/3		Construction Program and Cash Flow			SUM	
1/1/4		HSE Data Pack for Project			SUM	
1/1/5		QCP Data Pack for Project			SUM	
1/1/6		Construction EMP			SUM	
1/1/7		Provision for Site Specific PPE for Contractors			SUM	
1/1/8		insurance Requirements			SUM	
1/1/9		Provision for As-Built Drawings			SUM	
1/1/10		Attendance of HAZCON Planning Session			SUM	
		<u>ConstructionFacilitiesfor the Contractor</u>				
1/1/11		Site Offices			SUM	
1/1/12		Workshops			SUM	
1/1/13		Ablutions and Shower Facilities			SUM	
		Carried Forward			R	
		Section No. 1 Preliminaries Bill No. 1 Preliminaries				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
1/1/14		Tools and Equipment			SUM	
1/1/15		Water Supplies, Electric Power and Communications			SUM	
1/1/16		Plant			SUM	
1/1/17		Other Fixed Obligations			SUM	
1/1/18		Remove Site Establishment on Completion			SUM	
		<u>Construction Site Facilities for Engineer</u>				
1/1/19		Furnished Offices			SUM	
1/1/20		Ablutions and Latrine Facilities			SUM	
1/1/21		Name Boards <u>Other Fixed Time Requirements</u>			SUM	
1/1/22		Foreman			SUM	
1/1/23		Transport			SUM	
1/1/24		Safety Officer			SUM	
1/1/25		Fire Watch			SUM	
		<u>TIMERELATED ITEMS</u>				
		<u>Operation and Maintenance of Facilities on site for the Duration of Construction. (Unless otherwise stated)</u>				
		Note: By pricing this section, the Contractor confirms that he is able to complete the works in the specified time and agrees to the penalty clause as detailed in the contract. Alternatively the Contractor is to modify the duration in accordance with his attached program.				
		Carried Forward			R	
		Section No. 1 Preliminaries Bill No. 1 Preliminaries				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		<u>Contractual Requirements</u>				
1/1/26		Head Office Management			SUM	
1/1/27		Site Supervision Staff			SUM	
1/1/28		Weekly Updated Construction Program and Cash Flow Graphs			SUM	
1/1/29		Management of HSE requirements for Duration of Project			SUM	
1/1/30		Management of QCP requirements for Duration of Project			SUM	
1/1/31		Management of EMP requirements for Duration of Project			SUM	
1/1/32		Provision of Site Specific PPE for Duration of Project			SUM	
1/1/33		Provision of Fire Watch as required for Hot Work			SUM	
		<u>Construction of Site Facilities for the Contractor</u>				
1/1/34		Site Offices			SUM	
1/1/35		Workshops			SUM	
1/1/36		Ablutions and Shower Facilities			SUM	
1/1/37		Tools and Equipment			SUM	
1/1/38		Water Supplies, Electric Power and Communications			SUM	
1/1/39		Other Time Related Obligations			SUM	
		<u>Other Time Related Requirements</u>				
1/1/40		Foreman			SUM	
1/1/41		Transport			SUM	
		Carried Forward			R	
		Section No. 1 Preliminaries Bill No. 1 Preliminaries				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

[illegible]

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<u>SECTION2</u>				
		<u>BILL NO.1</u>				
	SANS 1200 DA	<u>EARTHWORKS</u>				
		The Tenderer is referred to the relevant Clauses in the separate document SANS 1200 and 2001 and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.				
		<u>SUPPLEMENTARY PREAMBLES</u>				
		The Tenderer is to conduct a Geotechnical Assessment prior to commencement of the works. All excavations described as being in earth shall be deemed to include for all materials described in the Geotechnical Assessment.				
		Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from excavations or, alternatively, from stock piles situated on the proposed site.				
		<u>Nature of ground</u>				
		The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"				
		<u>Subterranean water</u>				
		No subterranean water is expected				
		Carried Forward			R	
		Section No. 2 Pump House and Tank Stand Bill No. 1 Earthworks				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

2/1/1		<p style="text-align: right;">Brought Forward</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p> <p><u>Filling</u></p> <p>Notwithstanding the reference to prescribed multiple handling, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with SABS 1200D except for additional specialist testing as instructed by the Engineer.</p> <p><u>Proving of existing services onsite:</u></p> <p>The Contractor is to allow for the cost of proving the existence of any unknown services (sewer, stormwater, electricity, etc) running through the site. The Contractor is also to allow for the cost for proving any known services that may not be located where indicated on Municipal plans.</p> <p>Proving of services as per Supplementary Preambles above.</p> <p><u>TEMPORARY BARRIERS, SCREENS, ETC.</u></p>		item	R	
		<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Pump House and Tank Stand Bill No. 1 Earthworks</p>				R

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
2/1/2	8.3.1 a	<u>Temporary barriers, screens, etc. including removal</u>				
		Dust screen 2m high, of suitable timber framing with HDPE knitted shade cloth stapled on one side, including corners, ends, etc.	m	50		
		<u>EARTHWORKS</u>				
		<u>EXCAVATIONS, ETC. Remove topsoil to nominal depth 150mm, stockpile, backfill, re-compact and cart excess material off site</u>				
2/1/3		Site Clearance	m ²	269		
		8.3.2	<u>Restricted Excavation</u> <u>Excavate for restricted foundations, footings and trenches in all materials and use for backfill or embankment or dispose</u>			
2/1/4	8.3.3	Ground Beams	m ³	88		
		<u>Extra over excavations in earth</u>				
2/1/5		Soft excavation	m ³	13		
2/1/6		intermediate excavation	m ³	13		
		<u>Overhaul</u>				
2/1/7		Long Overhaul (Provisional)	m ³	79		
		<u>FILLING, ETC.</u>				
		Carried Forward			R	
		Section No. 2 Pump House and Tank Stand Bill No. 1 Earthworks				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

[illegible]

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<p><u>SECTION2</u></p> <p><u>BILL NO.2</u></p> <p><u>PILING</u></p> <p>The Tenderer is referred to the relevant Clauses in the separate document SANS 1200 and 2001 and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>The Tenderer is to conduct a Geotechnical Assessment prior to commencement of the works. All excavations described as being in earth shall be deemed to include for all materials described in the Geotechnical Assessment.</p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from excavations or, alternatively, from stock piles situated on the proposed site.</p>				
		Carried Forward			R	
		<p>Section No. 2</p> <p>Pump House and Tank Stand</p> <p>Bill No. 2</p> <p>Piling</p>				

		Brought Forward			R	
		<u>Indemnity</u> The contractor shall take full responsibility for piling work and shall guarantee that piling work will support the calculated loads laid down by the Engineer without injurious settlement. The actual lengths of piles shall be determined on site by the contractor in consultation with the Engineer who will give all assistance possible. This does not in any way relieve the contractor of his responsibility or obligation to provide the specified guarantee The contractor shall indemnify the employer against any injury to or death of any person and all loss or damage to all structures resulting from the failure of any pile. in the event of the failure of a pile the contractor shall make good such pile and all consequent damage at his own expense				
		Carried Forward			R	
		Section No. 2 Pump House and Tank Stand Bill No. 2 Piling				

		Brought Forward			R	
		<p>The contractor shall insure by means of a policy, approved by the Engineer, against risks arising out of the responsibilities, guarantee and indemnities specified. The contractor shall pay all premiums in respect of this insurance policy. The guarantee shall be for the amount and effective period as stated hereafter in this bill. The piling liability insurance policy should have insurance, but not limited, cover for the following sections:</p> <p>a) Public Liability Cover b) General Construction Liability Cover c) Foundation Failure indemnity Cover d) Products and Defective Workmanship Liability Cover e) The 'Certificate of insurance' is to be submitted to the Principal Structural Engineer for Approval f) The Limit of indemnity and the required insurance Cover will be as stipulated in the Piling Tender Document or as advised by the Project Manager</p>				
		Carried Forward			R	
		<p>Section No. 2 Pump House and Tank Stand Bill No. 2 Piling</p>				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		<p><u>Scope of work</u></p> <p>The work comprises the installation of 350mm and 400mm diameter piles. The contractor is referred to drawing No 200-277/300 Rev T1 and drawing No 200-277/301 Rev T1 respectively issued together with these bills of quantities in order to acquaint himself fully with the nature and scope of the work?</p> <p>The work comprises the design and installation of 350mm and 400mm diameter piles. The contractor is referred to drawing No 200-277/300 Rev T1 and drawing No 200-277/301 Rev T1 respectively issued together with these bills of quantities in order to acquaint himself fully with the nature and scope of the work</p> <p>Piles are to be installed subsequent to the site being excavated or filled to the correct levels</p> <p><u>Cartaway of excavated</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the site to an approved dump site determined by the Contractor</p> <p><u>GUARANTEE AND INSURANCE</u></p>				
2/2/1		Public Liability Cover to a minimum value of R3 million		item		
2/2/2		General Construction Liability Cover to a minimum value of R3 million		item		
2/2/3		Foundations Failure indemnity Cover to a minimum value of R3 million		item		
		Carried Forward			R	
		<p>Section No. 2</p> <p>Pump House and Tank Stand</p> <p>Bill No. 2</p> <p>Piling</p>				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
2/2/4		Products and Defective Workmanship Liability Cover to a minimum value of R5 million		item		
	8.2.1	<u>ESTABLISHMENT</u>				
2/2/5		Establishment on Site for Piling			SUM	
		<u>SETTINGUP</u>				
2/2/6	8.2.2	Move Equipment to and set up at each Pile Position	No	32		
2/2/7	8.2.3	Standing Time (Provisional)	Hrs	1.00		
		<u>CONTINUOUSFLIGHTAUGER (CFA)PILES</u>				
	8.2.4	<u>Continuousflight auger holes for piles of350mmdiameter through material situated inthefollowing Successive DepthRangesincluding haul toa dumpsite located bythe Contractor:</u>				
2/2/8		Exceeding 15m and not exceeding 20m deep				
	8.2.4	<u>Continuousflight auger holes for piles of400mmdiameter through material situated inthefollowing Successive DepthRanges.including haul toa dumpsite located bythe Contractor:</u>	m	144		
		Exceeding 15m and not exceeding 20m deep				
2/2/9		<u>REINFORCEMENT</u>	m	432		
	8.2.16	<u>SteelReinforcementinCast-in-Situ Piles</u>				
		Mild steel of various diameter bars				
2/2/10		High yield stress steel of various diameter bars	t	1.36		
2/2/11			t	5.45		
		Carried Forward				
		Section No. 2 Pump House and Tank Stand Bill No. 2 Piling			R	

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		<u>CONCRETE</u>				
	8.2.17	<u>Concrete for Cast-in-situ Piles in 30Mpa Concrete</u>				
2/2/12		350mm Diameter	m3	14		
2/2/13		400mm Diameter	m3	54		
		<u>TRIMMING ETC</u>				
	8.2.20	<u>Strip/Cut Pile Heads</u>				
2/2/14		350mm Diameter	No	8		
2/2/15		400mm Diameter	No	24		
		<u>TESTING Load</u>				
	8.2.22	<u>Test on Piles</u>				
2/2/16		integrity testing in-situ concrete pile	No	18		
		<u>SUNDRIES</u>				
2/2/17		As built drawings location drawings signed by the piling subcontractor illustrating the precise position of every single pile. Piles outside the tolerance limits shall be highlighted on the as built layout		item		
		Carried Forward to Summary of Section No. 2			R	
		Section No. 2 Pump House and Tank Stand Bill No. 2 Piling				

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<p><u>SECTION2</u></p> <p><u>BILL NO.3</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT (PROVISIONAL)</u></p> <p>The Tenderer is referred to the relevant Clauses in the separate document SABS 1200GB and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities. <u>SUPPLEMENTARY</u></p> <p><u>PREAMBLES</u> <u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under Clause 7 "Tests" of SABS 1200 GB shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Engineer. (Test cubes are measured separately)</p>				
		Carried Forward				
		<p>Section No. 2</p> <p>Pump House and Tank Stand</p> <p>Bill No. 3</p> <p>Concrete, Formwork and Reinforcement</p>			R	

		Brought Forward			R	
		<p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use.</p> <p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p> <p>Formwork to soffits of solid slabs etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described.</p> <p>Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks".</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described</p>				
		Carried Forward			R	
		<p>Section No. 2</p> <p>Pump House and Tank Stand</p> <p>Bill No. 3</p> <p>Concrete, Formwork and Reinforcement</p>				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
	8.2	<u>FORMWORK Rough</u>				
		<u>formworktosides</u>				
2/3/1		Foundation beams	m2	58		
		<u>Normal formworktosides</u>				
2/3/2		Walls (Horizontal formwork exceeding 85 degrees but not exceeding 90 degrees)	m2	197		
2/3/3		Plinths	m	7		
2/3/4		Slabs propped up exceeding 1.5m and not exceeding 3.5m high	m2	16		
2/3/5		Beams	m2	7		
	8.2.4	<u>REINFORCEMENT</u>				
		<u>SteelBars</u>				
2/3/6		Mild Steel Bars (Various Diameter Bars)	t	4.55		
2/3/7		High Tensile Steel (Various Diameter Bars)	t	18.21		
2/3/8		Ref 245 High Tensile Steel Mesh	t	0.39		
	8.2.5	<u>CONCRETE</u>				
		Carried Forward			R	
		Section No. 2 Pump House and Tank Stand Bill No. 3 Concrete, Formwork and Reinforcement				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		<u>30MPa/19mmconcrete cast against excavated surfaces</u>				
2/3/9		Surface beds	m3	31		
2/3/10		Ground beams	m3	30		
		<u>30MPa/19mmconcrete cast on/in formwork</u>				
2/3/11		Surface beds	m3	0.4		
2/3/12		Slabs including beams	m3	4		
2/3/13		Walls	m3	28		
	8.2.6	<u>UNFORMED CONCRETE SURFACE FINISHES</u>				
		<u>Finishing top of concrete smooth</u>				
2/3/14		Power-floated finishes	m2	16		
	8.2.8	<u>JOINTS</u>				
		<u>Two layers of 3ply malthoid inslip joints between horizontal concrete and brick surfaces including cement mortar bed</u>				
2/3/15		Not exceeding 300mm wide	m	8		
		<u>10mm polystyrene backing including 10mmx10mm wide 'Dow Corning 813C' or equally approved silicone sealant between vertical concrete and brick surfaces</u>				
2/3/16		Not exceeding 300mm wide	m	8		
		<u>10mm polystyrene backing including 10mmx10mm wide 'Dow Corning 813C' or equally approved silicone sealant between vertical brick surfaces</u>				
2/3/17		Exceeding 300mm high	m2	1		
		Carried Forward			R	
		Section No. 2 Pump House and Tank Stand Bill No. 3 Concrete, Formwork and Reinforcement				

		Brought Forward			R	
2/3/18	8.2.10	<u>MISCELLANEOUSMETALWORK</u> <u>Steelplate</u> 100mm x 10mm thick steel plate fixed to reinforced concrete wall with 'Prostruct 617 NS' non sag-epoxy adhesive (or equally approved). All steel to be hot dipped galvanized, with top of all reinforced concrete to be rendered smooth prior to fixing.	t	0.66		
		Carried Forward to Summary of Section No. 2			R	
		Section No. 2 Pump House and Tank Stand Bill No. 3 Concrete, Formwork and Reinforcement				

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<p><u>SECTIONNO.2</u></p> <p><u>BILL NO.4</u></p> <p><u>MASONRY(PROVISIONAL)</u></p> <p>The Tenderer is referred to the relevant Clauses in the separate document SANS 2001-CM1:2007 and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities. <u>SUPPLEMENTARY</u></p> <p><u>PREAMBLES Sizesindescriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Bagged andsealed walls</u></p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating</p> <p><u>Facebricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>				
		Carried Forward				
		<p>Section No. 2</p> <p>Pump House and Tank Stand</p> <p>Bill No. 4</p> <p>Masonry</p>			R	

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		<u>Degree of accuracy</u> The permissible deviations in masonry shall be in accordance with the SANS 2001-CM1:2007 for a degree of accuracy ii, unless otherwise specified in the specification data. Fair face masonry and face masonry shall be built to tolerances specified for a degree of accuracy i on the front face using masonry units that are fit for purpose <u>BRICKWORK</u> <u>FOUNDATIONS Brickwork of NFX</u> <u>bricks (14MPa nominal compressive strength) in class II mortar</u>				
2/4/1		One brick walls	m2	11		
		<u>SUPERSTRUCTURE Brickwork of NFX</u> <u>NFX bricks (14MPa nominal compressive strength) in class II mortar</u>				
2/4/2		Half brick walls	m2	2		
2/4/3		One brick walls	m2	58		
		<u>2.5mm Galvanised brick reinforcement</u> 150mm Wide reinforcement built in horizontally	m	267		
		<u>Prestressed fabricated concrete lintels including necessary temporary supports</u> 110 x 75mm Lintels in lengths not exceeding 3m	m	2		
2/4/5						
		Carried Forward			R	
		Section No. 2 Pump House and Tank Stand Bill No. 4 Masonry				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
2/4/6		<u>Turning pieces to lintels etc</u> 220mm Wide turning pieces <u>FACEBRICKWORK</u> <u>Corobrik Firelight Travertine face bricks pointed with flush horizontal and vertical joints</u>	m	2		
2/4/7		Extra over brickwork for face brickwork <u>Brick-on-edge header course copings, sills, etc of Corobrik Firelight Travertine face bricks, pointed with flush joints on all exposed faces</u>	m ²	58		
2/4/8		Brick-on-flat header course special bullnose coping set level and slightly projecting	m	2		
		Carried Forward to Summary of Section No. 2			R	
		Section No. 2				
		Pump House and Tank Stand				
		Bill No. 4				
		Masonry				

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
2/5/1		<p><u>SECTIONNO.2</u></p> <p><u>BILL NO.5</u></p> <p><u>WATERPROOFING (PROVISIONAL)</u></p> <p>The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) <u>SUPPLEMENTARY</u></p> <p><u>PREAMBLES Waterproofing</u></p> <p>Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><u>DAMPPROOFINGOFWALLSAND FLOORS</u></p> <p><u>Onelayer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mmendlaps, sealed to primed surface to falls and crossfalls by torchfusion. Waterproofing to be installed by an Approved Derbigum Contractor under a ten year guarantee</u></p> <p>Under surface beds</p> <p><u>WATERPROOFINGTOROOF, BASEMENTS.ETC.</u></p>	m2	16		
		<p>Carried Forward</p> <p>Section No. 2 Pump House and Tank Stand Bill No. 5 Waterproofing</p>				
					R	

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
2/5/2		<u>Onelayer 250micron green polyethylenewaterproofsheeting (SANS952-1985type C)sealed at laps with PVCself-adhesivetape</u> On flat roofs <u>PROTECTIVEROOFINGPAINT</u> <u>Twocoats bituminousaluminium paint</u>	m2	30		
2/5/3		On waterproofing to roofs	m2	19		
		Carried Forward to Summary of Section No. 2			R	
		Section No. 2				
		Pump House and Tank Stand				
		Bill No. 5				
		Waterproofing				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<u>SECTION NO. 2</u>				
		<u>BILL NO. 7</u>				
		<u>PLASTERING (PROVISIONAL)</u>				
		The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) <u>SCREEDS</u> <u>Screeds wood</u>				
		<u>floated, on concrete</u>				
		Average 70mm thick on roofs with upper surface to falls				
2/6/1		<u>INTERNAL PLASTER</u>	m2	16		
		<u>Cement plaster steel trowelled, on brickwork</u>				
		On walls				
2/6/2		<u>Cement plaster steel trowelled, on concrete</u>	m2	28		
		On ceilings				
2/6/3		On projecting and isolated beams	m2	16		
2/6/4			m2	13		
		Carried Forward to Summary of Section No. 2				
		Section No. 2 Pump House and Tank Stand Bill No. 6 Plastering			R	

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<u>SECTION NO. 2</u>				
		<u>BILL NO. 8</u>				
		<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>				
		The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) <u>RAINWATER</u>				
		<u>DISPOSAL uPVC</u>				
		<u>Rainwater Pipes</u>				
2/7/1		80mm Rainwater pip fixed to brick walls	m	6		
2/7/2		Extra over for bend	No	6		
2/7/3		Extra over downpipe for shoes	No	2		
		<u>Roof Outlet Cast into Concrete</u>				
2/7/4		100mm Domed 180 degree vertical outlet jointed to UPVC pipe	No	2		
		Carried Forward to Summary of Section No. 2			R	
		Section No. 2 Pump House and Tank Stand Bill No. 7 Plumbing and Drainage				

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
2/8/1		<u>SECTIONNO.2</u> <u>BILL NO.9</u> <u>PAINTWORK(PROVISIONAL)</u> The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) <u>PAINTWORKETC.TONEW</u> <u>WORK</u> <u>ONINTERNALFLOATED</u> <u>PLASTERSURFACES</u> <u>"PLASCON" Onecoat Merit plaster</u> <u>primer and</u> <u>two coats double velvet paint for</u> <u>interioruse(Colour: White)</u>	m2	28		
		Walls				
		Carried Forward to Summary of Section No. 2				R
		Section No. 2 Pump House and Tank Stand Bill No. 8 Paintwork				

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<p><u>SECTIONNO.2</u></p> <p><u>BILL NO.10</u></p> <p><u>EXTERNALWORKS</u> <u>(PROVISIONAL)</u></p> <p>The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition)</p> <p><u>SUPPLEMENTARY</u> <u>PREAMBLES</u></p> <p>The Tenderer is to conduct a Geotechnical Assessment prior to commencement of the works. All excavations described as being in earth shall be deemed to include for all materials described in the Geotechnical Assessment.</p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from excavations or, alternatively, from stock piles situated on the proposed site.</p> <p><u>Natureofground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p><u>Subterranean water</u></p> <p>No subterranean water is expected</p>				
		Carried Forward			R	
		<p>Section No. 2</p> <p>Pump House and Tank Stand</p> <p>Bill No. 9</p> <p>External Works</p>				

		Brought Forward			R	
		<u>Carting away of excavated material</u> Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site <u>Testing</u> Prices for filling are to include for all necessary density tests in accordance with SABS 1200D except for additional specialist testing as instructed by the Engineer. <u>Proving of existing services onsite:</u> The Contractor is to allow for the cost of proving the existence of any unknown services (sewer, stormwater, electricity, etc) running through the site. The Contractor is also to allow for the cost for proving any known services that may not be located where indicated on Municipal plans. <u>EARTHWORKS</u> <u>EXCAVATIONS. ETC.</u>				
	8.3.1 a					
	8.3.2	<u>Restricted Excavation</u> <u>Excavate for restricted foundations, footings and trenches in all materials and use for backfill or embankment or dispose</u>				
2/9/1		Aprons	m3	8		
	8.3.3	<u>Overhaul</u>				
2/9/2		Long Overhaul (Provisional)	m3	8		
		<u>FILLING. ETC.</u>				
		Carried Forward			R	
		Section No. 2 Pump House and Tank Stand Bill No. 9 External Works				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward				R	
2/9/3	8.3.4	<u>Importing of Materials from Commercial Sources or from Borrow Pits</u> G7 quality material compacted to 97% of modified AASHTO density layer thickness of 150mm, obtained from commercial sources, including all haul	m3	3			
2/9/4		<u>Prescribed density tests on filling</u> "Modified AASHTO Density" test	No	4			
2/9/5		<u>SOIL POISONING</u> <u>Soil insecticide in accordance with SANS 5859</u> Under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming	m2	26			
2/9/6	8.3	<u>REINFORCEMENT</u> <u>30MPa/19mm concrete cast against excavated surfaces</u> Ref 245 High Tensile Steel Mesh	t	0.06			
2/9/7	8.4.3	<u>CONCRETE</u> Aprons	m3	4			
2/9/8	8.4.4	<u>UNFORMED CONCRETE SURFACE FINISHES</u> <u>Finishing top of concrete smooth</u> Power-floated finishes	m2	26			
	8.5	<u>JOINTS</u>					
		Carried Forward				R	
		Section No. 2 Pump House and Tank Stand Bill No. 9 External Works					

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
2/9/9		<u>10mm polystyrene backing including 10mm x 10mm wide 'Dow Corning 813C' or equally approved silicone sealant between vertical concrete and brick surfaces</u> Not exceeding 300mm wide <u>DAMP PROOFING OF WALLS AND FLOORS</u> <u>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape</u>	m	26		
2/9/10		Under aprons	m2	26		
		Carried Forward to Summary of Section No. 2			R	
		Section No. 2 Pump House and Tank Stand Bill No. 9 External Works				

Bill No	Section No. 2	Page No		Amount	
	Pump House and Tank Stand				
	<u>SECTIONSUMMARY-PumphouseandTankStand</u>				
	2/1 Earthworks				
	2/2 Piling				
	2/3 Concrete, Formwork and Reinforcement				
	2/4 Masonry				
	2/5 Waterproofing				
	2/6 Plastering				
	2/7 Plumbing and Drainage				
	2/8 Paintwork				
	2/9 External Works				
Carried to Final Summary				R	
Section No. 2 Pump House and Tank Stand					

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<u>SECTION3</u>				
		<u>BILL NO.1</u>				
	SANS 1200 DB	<u>EARTHWORKS</u>				
		The Tenderer is referred to the relevant Clauses in the separate document SANS 1200 and 2001 and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.				
		The Tenderer is to conduct a Geotechnical Assessment prior to commencement of the works. All excavations described as being in earth shall be deemed to include for all materials described in the Geotechnical Assessment.				
		Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from excavations or, alternatively, from stock piles situated on the proposed site.				
		<u>Natureofground</u>				
		The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "intermediate rock" or "hard rock"				
		<u>Subterranean water</u>				
		No subterranean water is expected				
		Carried Forward			R	
		Section No. 3 Fire Reticulation Pipeline Bill No. 1 Earthworks				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward				R	
		<u>Carting away of excavated material</u> Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site <u>Filling</u> Notwithstanding the reference to prescribed multiple handling, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material. <u>Testing</u> Prices for filling are to include for all necessary density tests in accordance with SABS 1200D except for additional specialist testing as instructed by the Engineer. <u>Proving of existing services onsite:</u> <u>EARTHWORKS EXCAVATIONS.</u> <u>ETC.</u> <u>Excavating soft material situated within the following depth ranges below the surface level</u>					
3/1/1	8.3.1 a	1m up to 1.5m	m3	1,637			
3/1/2		<u>Extra over excavations in earth</u> intermediate excavation	m3	246			
	8.3.3	<u>EXCAVATION ANCILLARIES</u>					
3/1/3	8.3.3.4	<u>Overhaul</u> Limited Overhaul	m3	191			
		Carried Forward				R	
		Section No. 3 Fire Reticulation Pipeline Bill No. 1 Earthworks					

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
3/1/4		Long Overhaul (Provisional) <u>FILLING</u> , <u>ETC.</u>	m3	1,309		
	8.3.4	<u>Importing of Materials from Commercial Sources or from Borrow Pits</u>				
3/1/5		G7 quality material compacted to 97% of modified AASHTO density layer thickness of 150mm, obtained from commercial sources, including all haul	m3	194		
3/1/6		G7 quality material compacted to 93% of modified AASHTO density layer thickness of 150mm, obtained from commercial sources, including all haul	m3	22		
3/1/7		G5 quality material compacted to 98% of modified AASHTO density layer thickness of 150mm, obtained from commercial sources, including all haul	m3	244		
3/1/8		G2 quality material compacted to 100% of modified AASHTO density layer thickness of 150mm, obtained from commercial sources, including all haul	m3	295		
		<u>Supply of bedding by importation from commercial sources</u>				
3/1/9		Selected granular material (Cradle: River sand)	m3	95		
3/1/10		Selected fill material (Blanket)	m3	340		
		<u>Supply of backfill material from stockpile</u>				
3/1/11		Backfill material compacted in max 200mm thick layers to 93% MOD AASHTO	m3	207		
	8.3.6	<u>FINISHING</u>				
		Carried Forward			R	
		Section No. 3 Fire Reticulation Pipeline Bill No. 1 Earthworks				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

[illegible]

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<p><u>SECTION3</u></p> <p><u>BILL NO.2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT (PROVISIONAL)</u></p> <p>The Tenderer is referred to the relevant Clauses in the separate document SABS 1200GB and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities. <u>SUPPLEMENTARY</u></p> <p><u>PREAMBLES</u> <u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under Clause 7 "Tests" of SABS 1200 GB shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Engineer. (Test cubes are measured separately)</p>				
		Carried Forward				
		<p>Section No. 3</p> <p>Fire Reticulation Pipeline</p> <p>Bill No. 2</p> <p>Concrete, Formwork and Reinforcement</p>			R	

		Brought Forward			R	
		<p><u>Formwork</u></p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use.</p> <p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p> <p>Formwork to soffits of solid slabs etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described.</p> <p>Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks".</p> <p>Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described</p>				
		Carried Forward			R	
		<p>Section No. 3</p> <p>Fire Reticulation Pipeline</p> <p>Bill No. 2</p> <p>Concrete, Formwork and Reinforcement</p>				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

	Brought Forward	R	
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"		
8.2.1	<u>FORMWORK Rough</u>		
	<u>formworktosides</u>		
3/2/1	Column Bases	m2	13
	<u>Normal formworktosides</u>		
3/2/2	Stub Columns	m2	27
8.2.4	<u>REINFORCEMENT</u>		
	<u>SteelBars</u>		
3/2/3	Mild Steel Bars (Various Diameter Bars)	t	0.26
3/2/4	High Tensile Steel (Various Diameter Bars)	t	0.79
8.2.5	<u>CONCRETE</u>		
	<u>30MPa/19mmconcrete cast on/in formwork</u>		
3/2/5	Column Bases	m3	3
3/2/6	Stub Columns	m3	4
8.2.9	<u>GROUTING</u>		
	Carried Forward	R	
	Section No. 3 Fire Reticulation Pipeline Bill No. 2 Concrete, Formwork and Reinforcement		

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

	Brought Forward		R	
3/2/7	<u>UnderBases</u> 25mm thick 'Pro-Struct 531-MCi five star non-shrink grout plus' (or equally approved) between pipe brackets base plate and top of concrete <u>HDBolts</u> M10 galvanized H.D. Anchor studs with embedment length 100mm with chemical mortar all to engineers approval.	m3	0.1	
3/2/8		No	44	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3 Fire Reticulation Pipeline Bill No. 2 Concrete, Formwork and Reinforcement			

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<u>SECTION3</u>				
		<u>BILL NO.3</u>				
		<u>FIREHYDRANTSYSTEM (PROVISIONAL)</u>				
		The Tenderer is referred to the relevant Clauses in the separate document SABS 62, SANS 719:2008 and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.				
		<u>MAINTENANCE GUARANTEE(12 MONTHS)&QUARTERLY SERVICES</u>				
3/3/1		12 Month maintenance guarantee and service		item		
		<u>STEELPIPEWORK</u>				
		<u>Supply, Install and Commission:</u> <u>Medium steel pipes to SABS 62 and</u> <u>SANS 719:2008 for pipe diameter</u> <u>>150mm including flanges, off-cuts,</u> <u>wastage, fittings, klambonshangers,</u> <u>support brackets. All hangers,</u> <u>supports & fixing etc. to be stainless</u> <u>steel, all to SABS 1109</u>				
3/3/2		Pipe leg 2: 250mm diameter hydrant delivery main	m	692		
3/3/3		250mm diameter delivery main from pump house to legs 1 & 2 transitions	m	24		
3/3/4		80mm diameter hydrant stand pipes, FH1 to FH11	m	11		
3/3/5		80mm diameter hydrant stand pipes, FH12 to FH 21	m	25		
		Carried Forward			R	
		Section No. 3 Fire Reticulation Pipeline Bill No. 3 Fire Hydrant System				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		<u>HDPE PIPEWORK</u>				
		<u>Supply, Install and Commission:</u> <u>Medium steel pipes to SABS 62 and</u> <u>250mm HDPE PE 100 Class 16 pipe to</u> <u>SANS 4427 Part 2</u>				
3/3/6		Pipe leg 1 (North)	m	673		
3/3/7		Pipe leg 2 (South)	m	450		
		<u>FIRE HYDRANTS</u>				
		<u>65mm diameter flanged tamper-</u> <u>proof, 45 degree oblique downward</u> <u>mounted</u>				
3/3/8		Pipe leg 1 (North)	No	10		
3/3/9		Pipe leg 2 (South)	No	11		
		<u>Fire Extinguishers C/W photo</u> <u>luminescent signage</u>				
3/3/10		Pump House: 9kg DCP	No	1		
		<u>PUMPS, TANKS & PUMPHOUSE</u> <u>PIPEWORK</u>				
		<u>Supply, Install and Commission as</u> <u>per Contract Documents and</u> <u>Drawings</u>				
3/3/11		Centrifugal diesel pump set for hydrants: 3600L/min @ 1020kPa including electrical annunciator panels and pipework as per Fire Engineers specification	No	1		
3/3/12		Jockey pump, hydrant system, 800kPa, including electrical annunciator panels and pipework as per Fire Engineers specification	No	1		
		Carried Forward			R	
		Section No. 3 Fire Reticulation Pipeline Bill No. 3 Fire Hydrant System				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
3/3/13		<u>Galvanized Sectional Steel Tank</u> 400kL Capacity: 1.22m x 6 W, 1.22m x 4H x 1.22m x 10L	No	1		
3/3/14		<u>Quadruple Breeching Inlet</u> Supply, install and Commission as per Fire Engineers specifications	No	2		
3/3/15		<u>Valves & Gauges</u> 250mm diameter isolating valves: leg 1 & leg 2	No	4		
3/3/16		250mm diameter non return valves	No	2		
3/3/17		Air valve complete assemblies of steel pipes	No	4		
3/3/18		Air valves complete assemblies of HDPE pipes	No	8		
3/3/19		<u>Transition Couplings</u> 250mm diameter HDPE to steel pipes	No	7		
3/3/20		80mm diameter HDPE to hydrant stand pipe	No	12		
		<u>PIPE FITTINGS</u>				
		<u>HDPE flanged or electrofusion welded</u>				
3/3/21		90 degree long radius elbows: 250mm diameter	No	13		
3/3/22		Tees: 250mm diameter x 250mm x 80mm	No	12		
3/3/23		<u>Steel Piped Flanges</u> 90 degree long radius elbows: 250mm diameter	No	17		
		Carried Forward			R	
		Section No. 3 Fire Reticulation Pipeline Bill No. 3 Fire Hydrant System				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
3/3/24		Tees: 250mm diameter x 250mm x 80mm	No	9		
		<u>PAINTING</u>				
		<u>SteelPipePainting asperFire Engineers Specification</u>				
3/3/25		250mm diameter steel piping	m	716		
3/3/26		80mm diameter steel piping	m	36		
		<u>SteelPiping Internal Coating asper Fire Engineers Specifications(6.3mm thick)</u>				
3/3/27		250mm diameter steel piping <u>GPR</u>	m	716		
		<u>CABINETS MarineCabinet (540Hx 340Dx640W)</u>				
3/3/28		Supply & install fixed with M6 S/S U-bolts to 80mm diameter stand pipe	No	21		
		<u>SUNDRIES</u>				
3/3/29		80x80x8L fully welded galvanized steel frame support bracket fixed to concrete with chemical anchor bolts (elsewhere measured)	No	370		
3/3/30		M20 galvanized H.D. Anchor studs with embedment length 200mm with chemical mortar all to engineers approval.	No	250		
3/3/31		As built drawings, operation & maintenance manuals		item		
		Carried Forward to Summary of Section No. 3			R	
		Section No. 3				
		Fire Reticulation Pipeline				
		Bill No. 3				
		Fire Hydrant System				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

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Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
4/1/1		<u>SECTION4</u> <u>BILL NO.1</u> <u>ELECTRICALINSTALLATION</u> Tenderers are to note that the sum included in the amount column for this section of the Bill of Quantities, should be the total of all priced items in the Electrical installation Bill of Quantities as detailed hereafter. Electrical installation as detailed hereafter carried from Electrical Bill of Quantities			SUM	
		Carried to Final Summary Section No. 4 Electrical installation Bill No. 1 Electrical installation				R

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		<p><u>SECTION3</u></p> <p><u>BILL NO.1</u></p> <p><u>PROVISIONALSUMS</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>Under no circumstances must any Prime Cost Amounts, Provisional Amounts and Budgetary Allowances be extended at an amount lower than the amount given in this bill.</p> <p>The following sums and amounts and NET, in respect of the Provisional Amounts.</p> <p>Provisional and Budgetary sums contained herein may be omitted or reduced at the employers sole discretion and the Contractor shall NOT be entitled to claim for any loss by way of reductions or omissions of any discount or percentage relating to Provisional Amounts or PC amounts or any loss of profit related thereto.</p> <p><u>Profit</u></p> <p>Where stated, the contractor may allow for profit if required.</p>				
		Carried Forward			R	
		<p>Section No. 5</p> <p>Provisional Sums</p> <p>Bill No. 1</p> <p>Provisional Sums</p>				

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
		<u>General attendance on nominated/ selected subcontractors</u> The item 'Attendance' which follows each provisional sum for nominated selected subcontractors' work, shall be deemed to cover all the contractor's cost incurred in providing free of charge to the nominated/ selected subcontractors, inter alia the following: 1. The services as set out in the Preliminaries 2. Making good in all trades and cleaning down and removal of rubbish on completion. Tenderer's are to note that all Profit and Attendance amounts included by the Tenderer will be adjusted to the Pro Rata value of the Final Account amounts for the individual Provisional Sum amounts. <u>PROVISIONAL SUMS FOR NOMINATED/SELECTED SUBCONTRACT WORKS</u> <u>Geotechnical Investigation</u>				
5/1/1		Provide the sum of R 200,000.00 (Two Hundred Thousand Rand) for Geotechnical investigation		item		
5/1/2		Profit		item		
5/1/3		Attendance		item		
		<u>Roller Shutter Doors</u>				
5/1/4		Provide the Sum for Roller Shutter Doors		item		
5/1/5		Profit		item		
		Carried Forward				
		Section No. 5 Provisional Sums Bill No. 1 Provisional Sums			R	

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

		Brought Forward			R	
5/1/6		Attendance <u>BUDGETARY</u>		item		
		<u>ALLOWANCES</u>				
		The following items hereunder cover work which is not fully defined at the tender date and which is intended to be executed by the Contractor and/or specialist sub-contractors and will be measured at completion and priced in terms of the contract. Tenderers are to make the necessary allowances for this scope of work as no claim for additional preliminaries, etc will be entertained on this scope of work is realised. The amounts shown shall be used as directed by the Employer/ Project Manager and shall be deducted in whole or in part if not required.				
5/1/7		Provide the sum of R390,000.00 (Three Hundred and Ninety Thousand Rand) for encasing of pipework in concrete		item		
5/1/8		Provide the sum for Sundry items		item		
		Carried to Final Summary				
		Section No. 5 Provisional Sums Bill No. 1 Provisional Sums			R	

FIRE HYDRANT SYSTEM UPGRADE IN BAYHEAD DURBAN

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FIRE HYRDANT SYSTEM UPGRADE IN BAYHEAD DURBAN

**SPECIFICATION FOR THE ELECTRICAL INSTALLATION
TRANSNET
FIRE HYDRANT SYSTEM INSTALLATION**

BILL OF QUANTITIES

INDEX	PAGES
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BILL NO 1 - PRELIMINARY AND GENERAL	3/5
BILL NO 2 - DISTRIBUTION BOARDS AND CABLING	3/6 - 3/8
BILL No. 3 - PUMP HOUSE SMALL POWER AND LIGHTING	3/9 - 3/11
BILL NO 4 - LUMINAIRES	3/12
- SUMMARY SHEET	3/13

BILL OF QUANTITIES

GENERAL NOTES

1. This Bill of Quantities forms part of, and must be read in conjunction with the complete specification and must be submitted, duly completed, on the closing date of tenders.
2. Tenderers must complete the Bill of Quantities and detail the unit rate and total amount of each item.

The "Total" shall constitute the tender price for adjudication.

Tenderers are advised to check their item extension and total additions as arithmetical errors occurring in the priced Bill of Quantities cannot be considered as having an effect on the tender amount.

3. No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made it will not be recognised but the original wording of the Bill of Quantities will be adhered to.

The Engineer will check the completed Bill of Quantities and reserves the right to adjust any individual price and to rectify any discrepancy whilst the total tender price as quoted remains unaltered.

4. The quantities given in the Bill for cable, cable markers, earth wire laid with cable, overhead conductors, overhead earth wire and excavations cannot be regarded as exact and are subject to measurement on site after completion of the service and adjustments will be made according to the unit rates given in the Bill.

All other quantities will not be measured on site.

In the event of discrepancies between the drawings, specifications and Bill of Quantities the Engineer shall decide whether the work as executed shall be remeasured on site or whether remeasurement shall be effected from the working drawings only.

5. The Bill of Quantities is to be used for pricing and financial purposes only. The drawings take precedence over the particular (project) specification but should be used in conjunction with these specifications. The Project Specification takes precedence over quality specifications and the Bill of Quantities.

NOTE:

Checking of Cable and Overhead Conductor Lengths. Notwithstanding the fact that lengths of cables and overhead conductors, as given in the Bill of Quantities, have been measured from scaled drawings, the Contractor shall check such lengths on site before ordering the cable as he will not be paid for excess cable after the completion of the service. Any allowance for off-cuts shall be made in the unit rates. The final measurements shall be based on the nett route length of the cables and overhead lines concerned. installed in accordance with the specification. However, the onus is on the Contractor to prove compliance with the specification.

6. The unit prices quoted in the Bill of Quantities shall include for such small materials as are required for the complete installation in accordance with the specification.
7. Bill No. 1 is to be regarded as fixed and will not be adjusted for variations in the final contract value or contract period.

NOTE:

Tenderers may not include the costs of the items of Bill No. 1 in the unit rates for items in the remainder of the Bill of Quantities. Bill No. 1 is to be completed as indicated.

Failure to comply will result in the Engineer arbitrarily adjusting rates to exclude Preliminary and General Costs.

8. Unit prices for the same items in different Bills shall in all cases be the same, and in the case of differences, the Engineer reserves the right to change such unit prices when the completed list is checked, without adjusting the tender price.
9. The total for each page of each Bill is to be carried forward to the collection page at the end of each Bill.
10. P.C., Provisional and Contingency allowances, items and sums shall be expended as directed by the Engineer, and any balance remaining shall be deducted from the amount of the contract sum. Tenderers may not regard any unspent moneys as forming part of the final contract value.

Variation Instruction No. 1 will be issued after award of the contract to omit all P.C., Provisional and Contingency sums/allowances from the contract and authorized contract value.

11. Variation work, as well as the items described above, shall be measured as executed, and paid for according to unit prices in the Bill of Quantities. Where unit prices are not available, the work shall be priced, in conjunction with the Engineer, at current rates.
12. Unless otherwise specified in the Bill of Quantities, all items are to be priced on the basis of supply, delivery, offload, installation, connection, testing and commissioning.

All prices are to be EXCLUSIVE OF V.A.T but inclusive of import duties, surcharges, commissions to third parties, etc., where applicable. The foregoing items, as well as the Contractor's handling, financing and profit mark-up, is not to be separately detailed, and must be included in the cost rates.

13. Unless otherwise stated, all measurements are net, in accordance with the drawings, and no allowance has been made for wastage.
14. The Employer reserves the right to increase or decrease the extent of the contract works, without restraint, on total value of variations issued relevant to any particular item in the Bill of Quantities, by issuing written variation instructions to omit or add, as may be required, the supply and/or installation of any item of equipment or work, whether listed in the Bill of Quantities or not, and without affecting the unit cost rates indicated in the Bill of Quantities or Preliminary and General items.
15. In the event that Tenderers disagree with the measured quantities the tender should be qualified accordingly, listing the items and quantities in question.
16. The unit prices quoted in the Bill of Quantities must include for small installation materials such as nuts, bolts, nails, saddles, screws etc. as are required for the satisfactory complete installation in accordance with the specification.
17. Unless otherwise stated in the Bill, the unit cost rates shall be based on the following:

The rate for conduit boxes and for outlet boxes up to and including 100 x 100 mm shall be the same regardless of the number of entries.

The rate for conduit and outlet boxes shall include for fixing to the conduit with lock and bushnuts as may be required and for fixing to the building structure.

The rate for outlet boxes shall be without covers and draw boxes shall be complete with covers and screws.

The rate for industrial switch and plug units shall include for the relevant enclosure and fixing to conduit and building structure.

The rate for light switches, switch plugs, dimmer units, etc., shall include for screws, cover plates and fuses/breakers where applicable and for connection of wiring thereto.

The rate for conduit up to and including 25 mm diameter shall include all couplings, bends, boxes etc. as may be required.

The rate for luminaires and accessories shall include for connection of the wiring thereto.

18. All measurements are based on the most economical route lengths without any allowance for wastage, threading, jointing or slack.
19. In the case of wiring in conduit, an allowance of 300 mm per wire outlet box position has been made and in the case of cables and wiring entering switchboards, an allowance of 1000 and 2000 mm has been made for termination purposes in sub-distribution and main distribution boards respectively.
20. It should be noted that, notwithstanding anything to the contrary, any items completed or listed in the Bill of Quantities by the Tenderer will not be taken into account, will not be subject to re-measurement, and will not be regarded as a Bill of Quantities item.
21. Where equipment is specified by name, the tenderer must price on this basis. Alternatives may be offered by tenderers but the use of which is subject to written approval by the Engineer.

BILL No. 1 PRELIMINARY AND GENERAL	QTY	UNIT	RATE	TOTAL
<p>The costs for the following items shall not be included in the cost rates for work listed in the rest of the Bill of Quantities.</p> <p>a) Cost for compliance with Main Contractor's preliminary and general items not covered below.</p> <p>b) Contractual requirements as specified, i.e guarantees, insurance, sureties, company's overheads administration etc.</p> <p>c) Contract engineer, administration, supervision, programming and management.</p> <p>d) Establish site accommodation, storage etc.</p> <p>e) Maintain and operate site establishment.</p> <p>f) Remove site establishment on completion and remove all rubbish, foundations, concrete bases, dirt oil spillage, etc, and leave site in condition as found.</p> <p>g) Tools, equipment, plant hire and testing gear/meters as necessary.</p> <p>h) Guarantee and maintainance for the complete Electrical Installation including fittings, materials and workmanship for a period of TWELVE MONTHS after date of completion and handover</p> <p>i) Allow for testing and commissioning the whole of the electrical installation as laid down in the specification and for re-testing as may be required after the making good of all defective work to the satisfaction of the Engineer</p> <p>j) 3 sets of as built drawings showing all conduit routes, draw boxes and positions of outlets etc</p> <p>k) Provision for final testing and Certificate of Compliance to be issued on completion of the project in addition to the detailed testing specified.</p> <p>l) Allow to liase with Transnet personnel to for access to existing distribution boards and isolation of same.</p>		<p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p>		
TOTAL FOR BILL No. 1 CARRIED TO SUMMARY PAGE			R	

BILL No. 2 DISTRIBUTION BOARDS AND CABLING	QTY	UNIT	RATE	TOTAL
<p>DISTRIBUTION BOARDS</p> <p>Allow for the following supply, and delivery of the following distribution boards complete as specified. The Distribution boards are to be manufactured by Gamma Panels, Switchboard Manufacturers or Cato Ridge Electrical. (Price from alternative board manufacturers are to be priced separately and offered as an alternative)</p> <p>a) Supply DB as per drawing 18058_400_0</p> <p>DISTRIBUTION CABLING</p> <p><u>600/1000V rated cables laid in ground or in sleeves.</u> <u>To be protected when installed vertically up wall from ground</u></p> <p>b) 16mm² 4 core PVC/SWA/ECC/PVC cable</p> <p>c) Termination for 16 mm² 4 core cable above</p> <p>d) 10mm² 2 core PVC/SWA/ECC/PVC cable</p> <p>e) Termination for 10 mm² 2 core cable above</p> <p>f) 4mm² 2 core PVC/SWA/ECC/PVC cable</p> <p>g) Termination for 4 mm² 2 core cable above</p> <p>WIRE-WAYS</p> <p>h) Supply 150 mm wide medium duty galvanised welded cable ladder</p> <p>i) Extra on last to install</p> <p>j) Supply 150 mm wide light duty galvanised welded cable ladder T- piece</p> <p>k) Extra on last to install</p> <p>l) Supply 150 mm wide light duty galvanised welded cable ladder 4-way piece</p> <p>m) Extra on last to install</p> <p>n) Supply 150 mm wide light duty galvanised welded cable ladder riser piece</p> <p>o) Extra on last to install</p>	<p>1</p> <p>91</p> <p>2</p> <p>86</p> <p>2</p> <p>54</p> <p>2</p> <p>12</p> <p>12</p> <p>2</p> <p>2</p> <p>1</p> <p>1</p> <p>2</p> <p>2</p>	<p>No.</p> <p>m</p> <p>No.</p> <p>m</p> <p>No.</p> <p>m</p> <p>No.</p> <p>m</p> <p>No.</p> <p>No.</p> <p>No.</p> <p>No.</p> <p>No.</p> <p>No.</p> <p>No.</p>		
CARRIED TO COLLECTION PAGE			R	

BILL No. 2 DISTRIBUTION BOARDS AND CABLING	QTY	UNIT	RATE	TOTAL
EXCAVATIONS				
<u>Excavate and Backfill Trenches</u>				
a) Hand pickable soil	15	m³		
b) Intermediate material	2	m³		
c) In hard rock	1	m³		
SLEEVES				
d) Supply and install 110mm hard PVC sleeves in hard soil and tarmac. Including backfilling, cable markers etc	12	m		
e) Supply and install 110mm hard PVC sleeves in soft pickable soil and tarmac. Including backfilling, cable markers etc	15	m		
f) Supply and install 75mm hard PVC sleeves in hard soil and tarmac. Including backfilling, cable markers etc	22	m		
g) Supply and install 75mm hard PVC sleeves in soft pickable soil and tarmac. Including backfilling, cable markers etc	55	m		
CARRIED TO COLLECTION PAGE				
			R	

COLLECTION PAGE for BILL No. 2

TOTAL BROUGHT FORWARD FROM PAGE 3/6

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TOTAL BROUGHT FORWARD FROM PAGE 3/7

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TOTAL FOR BILL NO. 2 CARRIED TO SUMMARY PAGE

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BILL No. 3 PUMP HOUSE SMALL POWER AND LIGHTING	QTY	UNIT	RATE	TOTAL
LIGHTING				
<u>Supply and Install the Following :</u>				
a) 25 mm PVC conduit fixed to soffit	26	m		
b) 25 mm PVC conduit installed in brickwork / slab	229	m		
c) 25 mm PVC conduit installed surface mounted	163	m		
<u>PVC insulated 1 000 V grade hard drawn copper wire drawn into trunking/conduit and coloured as per phase</u>				
d) 2.5 mm ²	523	m		
e) 4 mm ²	960	m		
f) 6 mm ²	1575	m		
g) Single lever 1 way 16 amp Crabtree light switch in 100 x 50 galvanised box inclusive of cover	2	No.		
h) 1 lever 2 way 16 amp Crabtree light switch or other in 100 x 50 galvanised box inclusive of cover	2	No.		
i) 5 amp unswitched socket outlet	4	No.		
j) 65mm PVC round box for 25mm conduit	3	No.		
Install the following luminaires as per drawings number 18011_600_0 :				
k) Type A	2	No.		
l) Type B	4	No.		
SMALL POWER				
m) Blank cover plate	4	No.		
n) 25 mm PVC conduit chased into brickwork	88	m		
o) 25 mm PVC conduit cast into concrete floor	18	m		
<u>PVC insulated 1 000 V grade hard drawn copper wire drawn into trunking/conduit and coloured as per phase</u>				
p) 2.5 mm ²	1327	m		
q) 4 mm ²	961	m		
CARRIED TO COLLECTION PAGE			R	

BILL No. 3 PUMP HOUSE SMALL POWER AND LIGHTING	QTY	UNIT	RATE	TOTAL
a) Supply and install 20 A double pole isolator complete with cover clips in 100x100/50 conduit box	3	No.		
b) Supply and install 20A single pole cord-grip isolator in 100x100/50 conduit box	2	No.		
c) Supply and install 16 amp S.S.O. in 100 x 100/50 box including cover plate	3	No.		
d) Supply and install 16 amp dedicated S.S.O. in 100 x 100/50 box including cover plate	3	No.		
e) Supply and install recessed weatherproof outlet box for 100x100 socket outlets	1	No.		
f) Supply and Install 100x100 16A switch socket outlet with euro	4	No.		
g)				
CARRIED TO COLLECTION PAGE				
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COLLECTION PAGE for BILL No. 3

TOTAL BROUGHT FORWARD FROM PAGE 3/9

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TOTAL BROUGHT FORWARD FROM PAGE 3/10

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TOTAL FOR BILL NO. 3 CARRIED TO SUMMARY PAGE

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BILL No. 4 LUMINAIRES	QTY	UNIT	RATE	TOTAL
Supply and install the following luminaires, inclusive of lamps as per drawing No. 18052_600_0				
a) Type A	2	No.		
b) Type B	4	No.		
<div> <div>TOTAL FOR BILL NO. 4 CARRIED TO SUMMARY PAGE</div> <div>R</div> </div>				

SUMMARY OF BILLS OF QUANTITIES		
BILL NO 1 - PRELIMINARY AND GENERAL		R
BILL NO 2 - GENERAL		R
BILL NO 3 - DISTRIBUTION BOARDS AND CABLING		R
BILL NO 4 - GROUND FLOOR SMALL POWER AND LIGHTING		R
BILL NO 5 - LUMINAIRES		R
SUB TOTAL		R
ADD VAT (15%)		R
TOTAL TENDER PRICE - CARRIED TO FORM OF TENDER		R

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

TRANSNET FREIGHT RAIL

WORKS INFORMATION

DESIGN, MONITOR AND COMMISSION A FIRE HYDRANT SYSTEM IN BAYHEAD

DURBAN

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1. DESCRIPTION OF WORK - GENERAL

1.1. General

Except as otherwise expressly provided herein, *Contractor* shall supply all competent labour, supervision, tools, equipment, installed and consumable materials, services, testing devices and warehousing and each and every item of expense necessary for the supply, fabrication, field erection, application, handling, hauling, unloading and receiving, installation, construction, assembly, testing (including concrete, compaction and pipe testing), evaluation, and quality assurance of assembly, for the works, hereinafter called the Work for Transnet SOC Limited represented by Transnet Freight Rail herein after referred to as the *Employer*.

1.2. Project Location

The Project work will be performed in the Transnet Freight Rail site.

Address: 150 Fish Eagle Road, train shunting yard, Durban (GPS Coordinate: 29°54'00.33"S, 31°00'21.50"E).

1.3. General Description of Plan

The work site is situated within the Durban, Bayhead Shunting Yard. The site is flat and access is generally good but is restricted in areas by existing buildings and structures. This site will be in continuous operation during construction and all equipment, piping and services are to be treated as live.

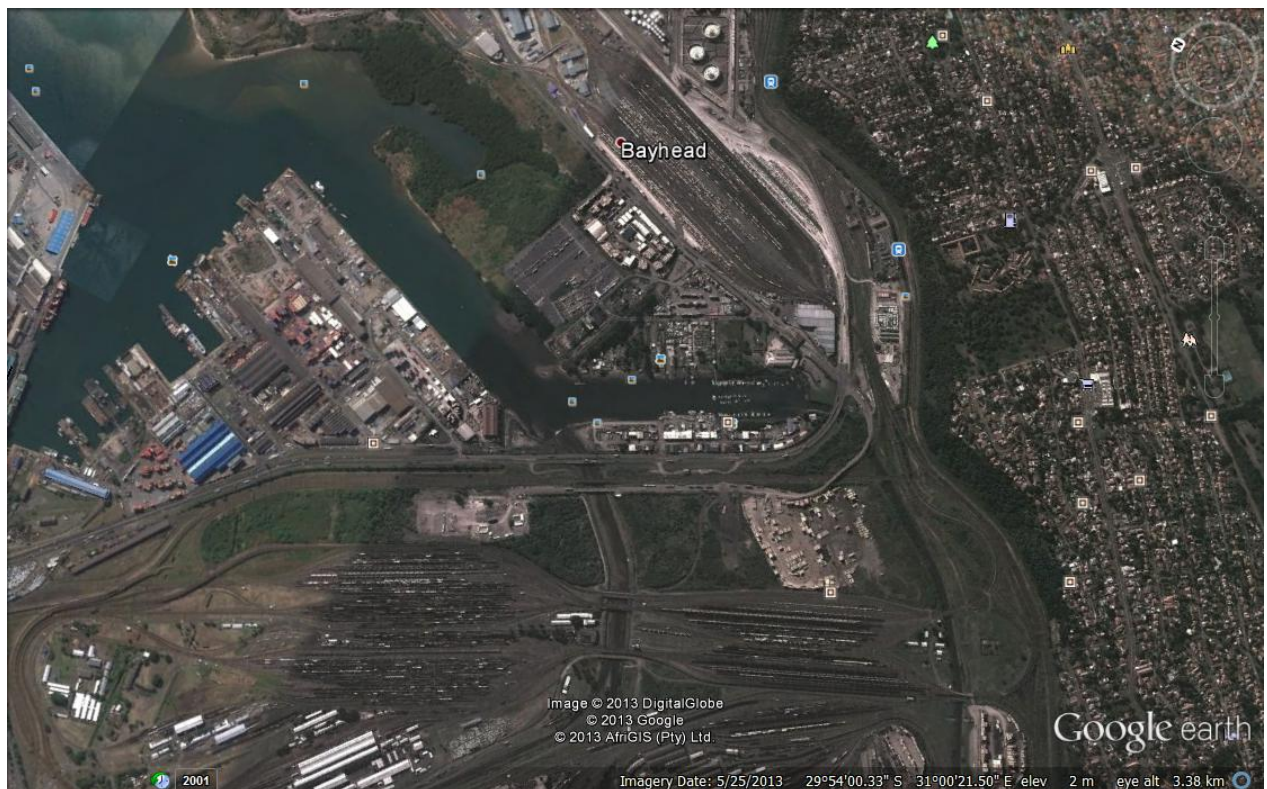


Photo 1: Aerial Photo of Durban Pump Station

2. LEGISLATION, SPECIFICATIONS, DRAWINGS, ATTACHMENTS AND EXHIBITS

All Work shall be performed in strict accordance with the following described specifications, drawings and other documents, which by this reference are made a part hereof.

Any documents not in the possession of the *contractor* must be requested from the *Employer* in writing.

2.1. Applicable Legislation

Standard Subject

Standard	Title
SABS ISO 9001: 2008	Quality Management Systems.
NBR	National Building Regulations and Building Standards (Act 103 of 1977)
OHS Act	Occupational Health and Safety Act No. 85 of 1993 as amended
Act 130 of 1994	Compensation for Occupational Injuries and Diseases Act
Act 29 of 1989	Road Traffic Act
GRM-FSS-Rev 002	Transnet Fire Safety Norms and Standards

2.2. Applicable Codes of Practice

(Refer PEP 602 Codes, Standards and Specification Procedure for list of recognized Transnet Freight Rail Standards)

SANS Codes of Practice

Code No.	Rev Date	Title
10160	2010	Basis of structural design and actions for buildings and industrial structures.
10400	1990	The Application of the National Building Regulations
1090	2002	Aggregates from natural sources - Fine aggregates for plaster and mortar
1200A	1986	General
1200C	1980	Site Clearance
1200DB	1989	Earthworks (Pipe Trenches)
1200DM	1981	Earthworks (Road Subgrade)
1200F	1983	Piling
1200G	1982	Concrete (Structural)
1200GA	1982	Concrete (Small Works)
1200GE	1984	Structural Precast Concrete
1200LB	1983	Bedding
1200LC	1981	Cable Ducts
1200LD	1982	Sewers

1200LE	1982	Storm water Drainage
1200M	1996	Roads (General)
1200ME	1981	Sub-base
1200MF	1981	Base
1200MG	1996	Bituminous surface Treatment
1200MH	1996	Asphalt Base and Surfacing
1200MK	1983	Kerb and Channeling
1200MM	1984	Ancillary Roadworks
SANS 731-1	2001	Road and runway markings Part 1: Single-pack solvent-borne and water-borne paints.
SANS 1519-1	1997	Road signs Part 1: Retro-reflective sheeting material.
SANS 1519-2	2004	Road signs Part 2: Performance requirements for road signs.
SANS 1555	1992	Road-works delineators.
SANS 1921-2	2004	Construction and management requirements for works contracts - Part 2 - Accommodation of traffic on public roads occupied by the <i>contractor</i> .
VC9085	2007	Compulsory specification for cement.
301-12	2004	Fences Part 12: Specification for steel palisade fences
SANS 23-4	2003	Steel wire and wire products for fences Part 4: Steel wire welded mesh fencing
SANS 280	2008	Hole location in fencing posts and droppers
SANS 1372	2010	Prefabricated concrete components for fences
SANS 1431	1987	Weldable structural steel
SANS 1700	2010	Fasteners
1700 Part 7	1996	External drive hexagon bolts and screws
1700 Part 14	1996	Hexagon nuts
SANS 545	2009	Wooden doors
SANS 10124	2006	The application of soil insecticides for the protection of buildings
SANS 1263-2	2007	Safety and security glazing materials for buildings Part 2: Burglar-resistant and vandal-resistant glazing materials
SANS 1263-3	2007	Safety and security glazing materials for buildings Part 3: Bullet-resistant glazing materials
SANS 10222-3	2007	Electrical security installations Part 3: Electric security fences
		(non-lethal)
SANS 10085-1	2004	Design, erection, use and inspection of access scaffolding.
SANS 121	2011	SABS ISO 1461 Hot dip galvanized coatings on fabricated iron and steel articles

2.3. Project Specifications

2.3.1 Transnet Freight Rail Specifications

Specification No.	Rev	Description
200-277-300_T1	T1	New fire hydrant system Water storage tank foundation piling & concrete layout & details
200-277-301_T1	T1	New fire hydrant system Pump room structural layout & details
200-277-302_T1	T1	Typical pipe support details Structural layout & details
200-277-900-T1	T1	New fire hydrant system fire water pipeline 1 long-section - 1 of 1
200-277-901-T1	T1	New fire hydrant system fire water pipeline 2 long-section - 1 of 2
200-277-902-T1	T1	New fire hydrant system fire water pipeline 2 long-section - 2 of 2
200-277-Sk02-T1	T1	Reinstatement Details for roadways
ATA 78/18 FIRE-001	J	Bayhead road fire hydrant layout
ATA 78/18 FIRE-002	J	Bayhead road fire hydrant layout - details
ATA 78/18 FIRE-003	J	Bayhead road pump & tank layout
ATA 78/18 FIRE-004	J	Bayhead road fire hydrant layout - details
18058_100_0	0	Lighting and small power layout - small power layout
18058_400_0	A	DB pump house - single line diagram
18058_600_0	0	Luminaire schedule

2.3.2 Other Specification/Standards

Manufacturer's Instructions

Contractor shall:

Unless otherwise specified, comply with manufacturer's latest printed instructions for materials, supply, storage, and installation methods.

Notify the *Employer* in writing of any conflict between these specifications and the manufacturer's instructions. The *Employer* will designate which document is to be followed.

2.4. Drawings

Drawing No.	Rev	Description
200-277-300_T1	T1	New fire hydrant system Water storage tank foundation piling & concrete layout & details
200-277-301_T1	T1	New fire hydrant system Pump room structural layout & details
200-277-302_T1	T1	Typical pipe support details Structural layout & details
200-277-900-T1	T1	New fire hydrant system fire water pipeline 1 long-section - 1 of 1
200-277-901-T1	T1	New fire hydrant system fire water pipeline 2 long-section - 1 of 2
200-277-902-T1	T1	New fire hydrant system fire water pipeline 2 long-section - 2 of 2
200-277-Sk02-T1	T1	Reinstatement Details for roadways
ATA 78/18 FIRE-001	J	Bayhead road fire hydrant layout
ATA 78/18 FIRE-002	J	Bayhead road fire hydrant layout - details
ATA 78/18 FIRE-003	J	Bayhead road pump & tank layout
ATA 78/18 FIRE-004	J	Bayhead road fire hydrant layout - details
18058_100_0	0	Lighting and small power layout - small power layout
18058_400_0	A	DB pump house - single line diagram
18058_600_0	0	Luminaire schedule

2.5. Other Documents

Geotechnical Brief - 200-277 Geotech Brief
--

2.6. Attachments

<u>Title</u>
Fire Technical Works Information
Electrical Technical Works Information

3. DESCRIPTION OF WORK - SPECIFIC

The Work described under sections 1.0 and 2.0 of this document shall include, but not be limited to the following

3.1. General

- 3.1.1. The Scope of Work is generally indicated on the drawings. The bill of quantities outlines the scope of work as seen by The *Employer*.
- 3.1.2. Any additional items, which the *Contractor* deems necessary for the successful completion of the works, should be covered in a separate letter to The *Employer*. All additional items are to be priced and submitted with the tender.
- 3.1.3. The *Contractor* must ensure that he has inspected the site and that he is aware of the site conditions. He should, with The *Employer's* permission and if he deems it necessary, undertake any additional investigations and exploratory work to establish site conditions.
- 3.1.4. The *Contractor* is to allow for a 6m x 3m air-conditioned site office with two desks and two chairs for the Consultant's engineer and construction personnel. The *Contractor* is to allow for all electrical connections and COC sign-off. The *Contractor* is to allow for offices for his team and storage facilities for equipment, material etc.
- 3.1.5. Access to the shunting yard must be obtained from the *Employers* Site Agent. The *Contractor* is to meet with the *Employers* site staff to obtain any relevant information that has not been documented. Contact details of the *Employers* responsible personnel will be provided to the *Contractor* at the time of receiving the Notice to Proceed.
- 3.1.6. Although every possible effort will be made to ensure continuity of work, it may be necessary to pause the works at times to accommodate obstructions and other delays. The *Contractor* should structure his work crews and schedules to ensure that standing time claims are minimized. The *Contractor* will be required to move crews or people from delayed areas to other areas wherever possible. Standing time claims will only be considered if all of The *Employer's* standing time requirements are met and the *Contractor* can show that every effort has been made to prevent them.
- 3.1.7. The *Contractor* is to supply credentials of all supervisors, including for CV's, proposed to carry out this work, from Foreman level up, with the tender. An organogram, including for all sub*contractors*, is to be provided with the tender. As per construction regulation 6(1), the *contractor* shall appoint a full time competent employee in writing as the construction supervisor, with the duty of supervising the construction work and dealing with the *Employer's* permit systems. Should this employee not be on site at all times the *Contractor* shall appoint an assistant construction supervisor as per construction regulation 6(2).
- 3.1.8. All Work shall be performed in accordance with all codes, details, specifications and standard drawings as referred to in Section 2. If there is a discrepancy between specifications and standard drawings, The *Employer* will designate which document is to be followed as referred to in Section 2.3.1. The *Employer* is to be informed of all discrepancies prior to construction.
- 3.1.9. The *Contractor* shall liaise with other discipline *contractor's* to establish construction, erection and installation schedules ensuring minimal standing time and unnecessary delays to other services.
- 3.1.10. The *Contractor* is to provide all necessary scaffold and barricading to carry out the required scope of work. The *contractor* shall ensure that all scaffolding work operations are carried out under the supervision of a competent person who has been appointed in writing and that all scaffolding

erectors, team leaders and inspectors are competent to carry out the work. All scaffolding shall comply with SANS 10085-1: Design, erection, use and inspection of access scaffolding.

- 3.1.11. All excess uncontaminated soil, demolished concrete and roadway surfaces, including sub-base and base layers, is to be carted off site to an approved solid waste disposal site, including for the paying of all charges. All contaminated soil, demolished concrete and roadway surfaces are to be disposed of in the waste skips provided. All demolished steelwork is to be disposed of at the designated scrap yard area on site. The *Contractor* shall provide certificates for all disposed materials and shall include this information in the Quality Pack.
- 3.1.12. Transportation of all excavated material beyond the free haul distances applicable will be regarded as overhaul. Overhaul will be classified as limited overhaul or limited overhaul plus long overhaul as described in SANS 1200D for the following ranges
 - 3.1.12.1. Free haul: The first 0.5km
 - 3.1.12.2. Limited overhaul: first 10km beyond the end of the applicable free haul by the shortest practicable route.
 - 3.1.12.3. Long overhaul: remainder of the overhaul distance by the shortest practicable route.
- 3.1.13. The *contractor* is to ensure that when demolishing concrete structures that the breaking point is kept wet at all times with a continuous flow of water to prevent the information of sparks.
- 3.1.14. The cost of keeping excavations free of rain and surface water is to be included in the rates. The cost of dewatering and pumps to deal with ground water must be approved by the engineer in writing before such dewatering takes place. Trial excavations are to be dug prior to construction to determine the depth of the water table at the site. The Engineer is to be informed of the depth of the water table and will decide whether or not de-watering is required. The construction schedule is to minimize de-watering durations wherever possible. The *Contractor* is to specify the de-watering duration; claims for additional de-watering durations will only be entertained due to delays caused by the *Employer*.
- 3.1.15. All excavation is to be done by hand, unless specifically instructed otherwise by the *Employer*, and great care is to be taken not to damage underground services.
- 3.1.16. All concrete below ground level, except for the camera pole foundations, is to be shuttered. Blinding is required under all footings.
- 3.1.17. All excavations deeper than 1.5m are to be shored or similar as per the requirements of the OHSACT. All necessary precautions need to be taken to secure and make existing services safe that have been located in any excavation. The *Employer* will decide whether adequate steps have been taken to secure and make existing services safe.
- 3.1.18. The *Contractor* is to exercise extreme care when excavating to ensure that unknown services are not damaged. If any previously unrecorded services or other objects are discovered during investigations and excavations, the *Employer* shall be notified in writing. An accurate description, including dimensions, levels related to reference datum and other relevant details of such services shall be prepared and supplied to the *Employer*.
- 3.1.19. The *Contractor* is to ensure that housekeeping of the highest order prevails at all time. All refuse is to be disposed of on a continuous basis.
- 3.1.20. The *Contractor* must ensure that the PPE and clothing worn by the work team are presentable including identification tags.

- 3.1.21. The *Contractor* is to submit a preliminary safety plan and method statement with the tender. A detailed safety plan and method statement is to be submitted, for approval by the Client, prior to any work commencing on site. The preliminary method statement is to clearly detail the construction steps, procedures and specifications to be followed.
- 3.1.22. Electrical cables may cross underground at various sections of the site and excavations across rail lines shall not be done without written authorization from the *Employer* and authorized *Employer* personnel present on site.

3.2. The Works for the *Employer* include for:

3.2.1. Fire Hydrant System and Pipeline Scope of Work

Pipeline, Pump and ancillary works on relevant site layout drawing

3.2.1.1. Refer to Fire Engineer's scope of works - *Hydrant System Specifications Rev 3.*

3.2.2. Structural Scope of Work

Pump house and Tank Stand as defined on relevant layout drawings

Foundations

3.2.2.1. All un-contaminated waste materials are to be disposed of at an approved solid-waste disposal site, including for paying of all charges.

3.2.2.2. The site is to be treated in accordance with SABS 1165 with soil poison.

3.2.2.3. Excavate soft soil for 350mm diameter pressure grouted continuous flight auger pile with a service load of 250kN. Pile cut-off to be 50mm above the soffit of the ground beam, or as indicated on the engineers drawings. Concrete to be min 30MPa and is to be constructed in accordance with SABS 1200F.

3.2.2.4. Supply and install reinforcing and vertical formwork and cast concrete to ground beams. Concrete to be min 30MPa with 50mm cover to reinforcing

3.2.2.5. Build 230mm perimeter brick walls in commons to floor slab level.

3.2.2.6. Backfill to foundations and walls in preparation for floor slab to be well compacted and soil poisoned.

Floor Slab

3.2.2.7 Supply and install 250 micron "Consol Plastic USB Green" polythene or equally approved damp proof membrane (DPM) on well compacted soil poisoned fill. DPM to be sealed at laps with "Gunplas pressure sensitive tape".

3.2.2.8 Top of concrete surface bed to be minimum 135mm above finish ground level and per SANS 10400 National building Regulation (NBR).

3.2.2.9 Supply and install "Gundle brickgrip" embossed DPC 375 micron or equal approved to walls at surface bed level or as shown on drawings.

3.2.2.10 Erect a narrow width formwork to construct external mesh reinforced concrete apron, 1000mm wide by 100mm laid to falls with wood floated finish and working joints to run the entire perimeter of the building.

Walls

3.2.2.11 Build 230mm perimeter brick walls in 14Mpa NFX bricks to perimeter roof beam soffit level complete with lintels for openings. All openings to be adequately waterproofed.

3.2.2.12 Build 115mm internal walls 900mm x 900mm x 510mm high brickwork bund wall.

Roof Slab

3.2.2.13 Erect scaffolding and formwork to roof soffit and perimeter beams, fix and install reinforcing and cast 170mm thick, 30MPa concrete roof slab. Concrete beams to be minimum 30MPa concrete with 50mm cover to reinforcing.

3.2.2.14 Supply and install 70mm screed to falls to roof slab.

3.2.2.15 Supply and install Stoncor bituthene 3000 waterproofing membrane to manufacturers specifications and guidelines on screed to falls to full bore outlets. Apply 2 coats of bituminous aluminum paint. All applications to manufacturers specifications and details.

3.2.2.16 Supply and install 80mm uPVC downpipe including full bore grating.

Tank Stand

3.2.2.17 All un-contaminated waste materials are to be disposed of at an approved solid-waste disposal site, including for paying of all charges.

3.2.2.18 The site is to be treated in accordance with SABS 1165 with soil poison.

3.2.2.19 Excavate soft soil for 400mm diameter pressure grouted continuous flight auger pile with a service load of 600kN. Pile cut-off to be 50mm above the soffit of the ground beam, or as indicated on the engineers drawings. Concrete to be min 30MPa and is to be constructed in accordance with SABS 1200F.

3.2.2.20 Supply and install reinforcing and vertical formwork and cast concrete to ground beams. Concrete to be min 30MPa with 50mm cover to reinforcing.

3.2.2.21 Supply and install reinforcing and vertical formwork and cast concrete to plinths to be rendered smooth, including steel plate to be epoxied to top of reinforced concrete plinths with "Prostruct 617 NS" non-sag epoxy adhesive or equal approved all in accordance with Engineers drawings

3.2.3. Civil Scope of Work

New Fire Line Support

3.2.3.1. Strip, clear and mark out reinforced concrete plinth positions, horizontal and vertical alignment. Excavate and construct subbase layer with imported fill. Construct reinforced concrete plinths (*As per structural details*) all in accordance with Engineers drawings (

3.2.3.2. Proving of reinforcement bars to existing bridge to receive 80x80x8L fully welded frame fixed to side of existing concrete bridge using 2No. chemical anchors all in accordance with Engineers drawings

Pipe Trenches

- 3.2.3.3 Excavate in soft material for new underground fire pipeline and stockpile soil locally. *Contractor* is to make provisions for ensuring the sides of trench do not collapse.
- 3.2.3.4 Where required due to water problems pump out water from trenches prior to laying bedding soil.
- 3.2.3.5 Supply, lay and compact 100mm thick bedding material below new fire pipeline all in accordance with the SABS 1200 code of practice.
- 3.2.3.6 Supply and lay fire pipeline in accordance with fire engineers specification.
- 3.2.3.7 Backfill and compact trenches consisting of selected imported fill material after installation of fire pipeline ensuring that stones and sharp objects are removed and that the fire pipeline is not damaged, in layers approved by the engineer.
- 3.2.3.8 Supply and install of premix material to match existing surface and where required, re-grass on completion including painting of road marking lines.

3.2.4. Electrical Scope of Work

New Fire Line Support

- 3.2.4.1. Supply and install new lighting and power to pump house as per Electrical Engineers Technical scope of work

3.2.5. Geotechnical Scope of Work

Geotechnical Investigation

- 3.2.5.1 Conduct geotechnical investigation in accordance with engineers brief

4. MATERIAL, EQUIPMENT, OR SERVICES FURNISHED BY TRANSNET FREIGHT RAIL

The *Employer* will furnish or cause to be furnished to *Contractor*, without cost to *Contractor*, the following items for or in connection with performance of the Work.

4.1. Work Furnished By Others

The Work listed below affecting direct performance of the Work is provided "by others" at no expense to *Contractor*:

- N/A

4.2. Materials

Apart from the items specifically described as being Transnet Freight Rail furnished, *Contractor* shall supply all other materials and equipment required by and in accordance with the contract including all materials generally described as "consumables"

5. PERFORMANCE SCHEDULE AND SEQUENCE OF WORK

5.1. Work Commencement

5.1.1 *Contractor* shall commence performance of the Work at jobsite within five (5) calendar days after receiving Notice to Proceed from Transnet Freight Rail and shall complete Work within the time frame as specified in their detailed program and milestone dates provided by Transnet Freight Rail. If said Notice to Proceed is not given in writing, Transnet Freight Rail will thereafter confirm the date of commencement in writing.

5.1.2 No contract will be in effect until a memorandum of agreement has been signed and a purchase order number has been issued by Transnet Freight Rail.

5.2. Scheduling, Reporting and Co-ordination Requirements

General scheduling, reporting and co-ordination requirements shall be described in PART III, GENERAL TERMS – STANDARD.

Specific scheduling and co-ordination requirements shall be as follows:

A detailed bar chart showing the stages of work from receipt of order to completion with the best possible completion date is to be submitted with the bid, showing best completion date for the major items of work. The submitted schedule forms an integral part of the tender. Failure to submit this documentation will result in the bid being rejected. An updated detailed bar chart showing the stages of work from receipt of order to completion with the best possible completion date is to be supplied after award of the contract, prior to commencing work. The original schedule is to be saved as the base line and the schedule updated weekly. This updated schedule is to indicate the reasons for any delays, including delays caused by Transnet Freight Rail, as well as updated forecast dates and percentage complete for all items.

Key milestones to be included:

- Mobilization on site.
- Submission of safety plan. (Allow a period of 2-3 weeks thereof)
- Construction start date.
- Pump house Construction
- Tank Stand Construction
- Installation of Fire Hydrant Pipe and Hydrant Heads.
- Testing and Commissioning
- Completion of all works.

The construction schedule is to be a single construction schedule for the entirety of the works. 2019.

5.3. Site Working Hours

Site working hours will be the standard Transnet Freight Rail standard work day.

6. REPORTING REQUIREMENTS AND CO-ORDINATION MEETINGS

Contractor shall promptly submit the schedules and reports set forth below and in addition, those schedules and reports as requested by Transnet Freight Rail pursuant to the Article entitled SCHEDULING, REPORTING AND CO-ORDINATION set forth in PART III.

6.1. Reports

- 6.1.1. A Bar Chart Schedule as specified in section 5.2. The schedule shall show manpower required by time interval for each activity and shall reflect percent of schedule completion by time of interval.
- 6.1.2. Contract Daily Report is to be submitted daily before 9:00 am to the Civil Construction Supervisor.
- 6.1.3. During the latter stages of accomplishing Work and prior to delivering notice of completion of the Work, *Contractor* shall submit its plans for demobilization at jobsite to Transnet Freight Rail for approval and shall comply with such demobilization plan as approved by Transnet Freight Rail.

6.2. Weekly Co-ordination Meetings

- 6.2.1. A weekly written report showing actual man-hours expended versus planned and scheduled progress versus actual progress giving details of Work completed in relation to the approved schedule, together with a two (2) week "look ahead" which provides details of how the Work will be completed. This report shall be submitted to coincide with a mutually scheduled weekly progress meeting. An updated schedule shall be submitted in the event of an agreed schedule change.
- 6.2.2. *Contractor* shall attend a weekly co-ordination meeting together with relevant Transnet Freight Rail parties.

The person or persons designated by *Contractor* to attend the meetings shall have all the required authority to make decisions and commit *Contractor* to solutions agreed upon during any co-ordination meeting.

6.3. Other Meetings

Contractor participation in certain non-productive activities shall be required. These activities shall include but not be limited to:

- 6.3.1. Weekly toolbox safety meetings organized and conducted by *Contractor* and attended by all of *Contractor's* craft employees. *Contractor* shall be responsible for arranging and conducting these meetings with its craft employees. The meetings will last approximately 15 minutes.

7. DATA REQUIREMENTS

7.1. Transnet Freight Rail Data Issues

Transnet Freight Rail will issue one (1) original size paper copy and one (1) A3 size paper copy of all Transnet Freight Rail drawings and supplied documentation, pertaining to the scope as outlined in this document. It will be the responsibility of the *Contractor* to obtain all other additional copies as required for construction.

7.2. Data Submittal Requirements

Contractor shall submit the following data to Transnet Freight Rail as part of the Scope of Work:

7.2.1. All *Contractor*-installed work shall be recorded on As-Built Drawings.

7.2.2. Two (3) copies of test reports and test certificates as set forth in *Contractors* Data requirements within 24 hours for review.

7.2.3. One (3) set of legible prints of all updated drawings.

7.2.4. Quality Control Program for review prior to commencement of Work.

7.2.5. Copies of all signed OHS Act appointments. These appointments shall include the 6.1 and 6.2 appointments.

7.2.6. All necessary QC documentation as work is completed.

7.2.7. A complete report of all tests, at completion of work.

7.2.8. Safety plan particular to this work.

7.3. *Contractor* Data Submittal Obligations

Contractor's performance of its obligations hereunder shall not be deemed complete until Transnet Freight Rail is in receipt, on proper forms, of all Technical Data, As-Built Drawings, and other documents to be submitted to Transnet Freight Rail as part of *Contractor's* Scope of Work. Failure of *Contractor* to comply with the above data requirements will entitle Transnet Freight Rail to withhold any progress payment, or final payment, pending Transnet Freight Rail's receipt of all the above data without prejudice to any other remedy of Transnet Freight Rail.

7.4. *Contractor* As-Built Data

Contractor shall furnish to Transnet Freight Rail in quantities as stipulated in 7.2.3, drawings revised by *Contractor* to show "as-built" information. *Contractor's* revisions shall show details of those locations where the Work performed by *Contractor* was at variance with the details shown on the drawings (either furnished by Transnet Freight Rail or furnished by *Contractor* and reviewed by Transnet Freight Rail). *Contractor's* submittal to Transnet Freight Rail of such "As-Built" drawings shall be made on a continuous basis as the Work proceeds, but in all cases prior to the date of Notice of Acceptance. For the purposes of *Contractor's* inclusion of "As-Built" information, Transnet Freight Rail will provide *Contractor* with a legible copy of Transnet Freight Rail furnished drawings and *Contractor* shall provide legible copies in quantities as stipulated in 7.2.3 above, or *Contractor* furnished drawings.

7.5. Material Test Reports

Transnet Freight Rail reserves the right to review certified material test reports for all materials of construction at any time during field erection. *Contractor* shall maintain these documents readily available for such review and shall submit all documents to Transnet Freight Rail on the completion of the Work.

7.6. Jobsite Data

Contractor shall maintain at the jobsite up-to-date copies of all drawings, specifications, and other documents and supplementary data, complete with latest revisions thereto. In addition, *Contractor* shall maintain a continuous record of all field changes and at the conclusion of the Work shall incorporate all such changes on the "As-Built" drawings and other engineering data and shall submit the required number of copies thereof to Transnet Freight Rail.

7.7. Transnet Freight Rail Contract Number

Contractor shall show the Transnet Freight Rail Contract Number and identifying item numbers, if applicable, on all data submitted.

7.8. Samples

- 7.8.1. Where samples are required, they shall be submitted by and at the expense of *Contractor*. Such submittal shall be made not less than thirty (30) calendar days prior to the time that the materials represented by such samples are needed for incorporation into any Work. Samples shall be subject to review and materials represented by such samples shall not be manufactured, delivered to the site or incorporated into any Work without such review.
- 7.8.2. Each sample shall bear a label showing *Contractor's* name, project name, name of the item, Manufacturer's name, brand name, model number, supplier's name and reference to the appropriate drawing, technical specification section and paragraph number, all as applicable.
- 7.8.3. Samples which have been reviewed may, at Transnet Freight Rail's option, be returned to *Contractor* for incorporation into the Work.
- 7.8.4. Material certifications are required for reinforcing. Reinforcing bars to be sent for checking of lengths.
- 7.8.5. Appropriate aggregate tests are required for both on site and off site batched concrete.

TRANSNET FREIGHT RAIL

Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

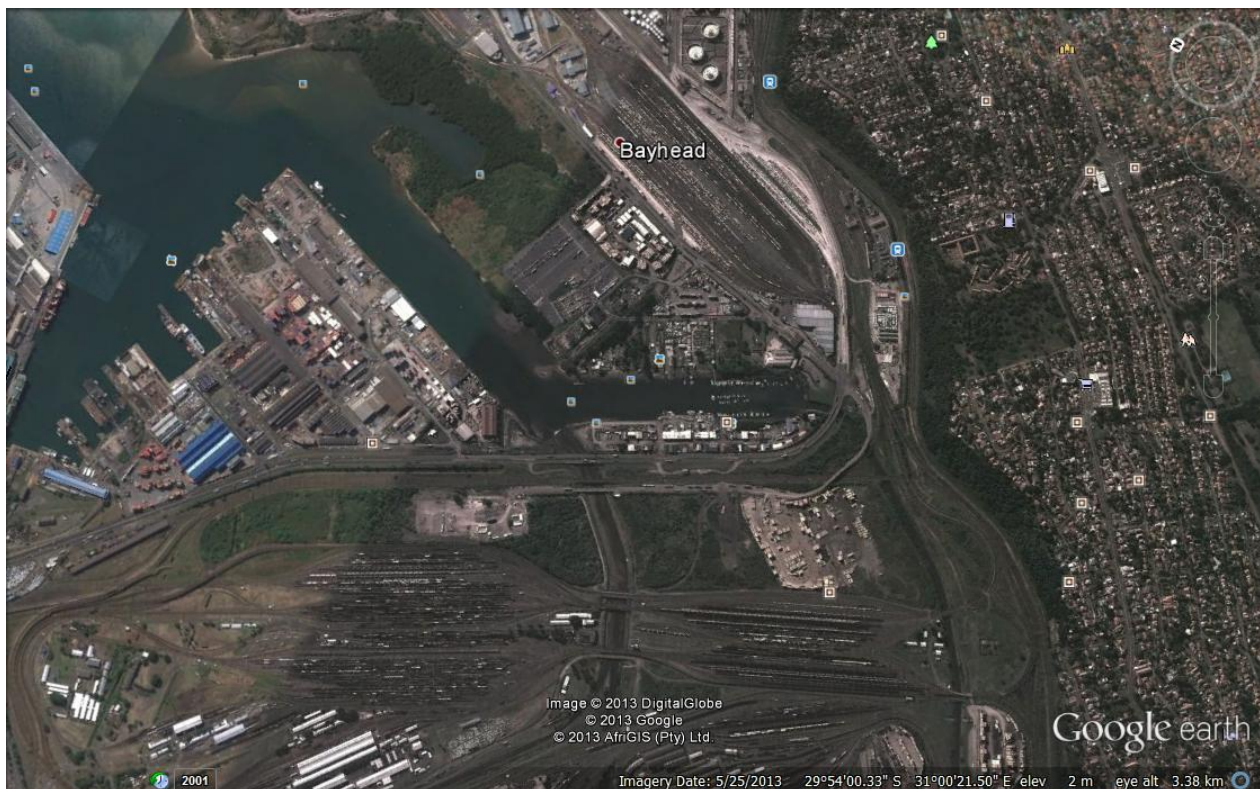
PART C4: SITE INFORMATION

Document reference	Title	No of page
	This cover page	1
C4	Site Information	1

Project Location Durban

The Project work will be performed in the Transnet Freight Rail site.

Address: 150 Fish Eagle Road, train shunting yard, Durban (GPS Coordinate: 29°54'00.33"S, 31°00'21.50"E).

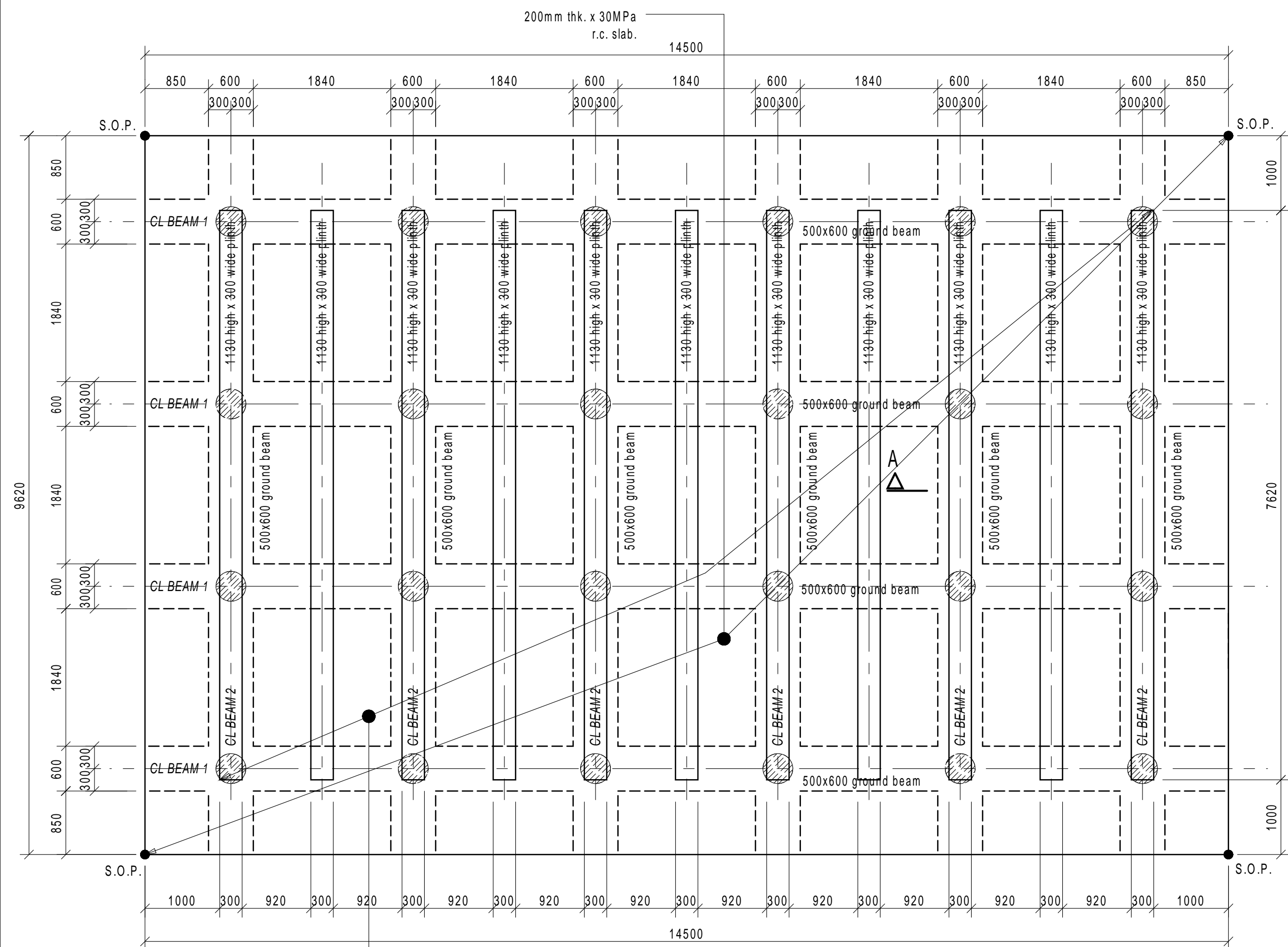


TRANSNET FREIGHT RAIL

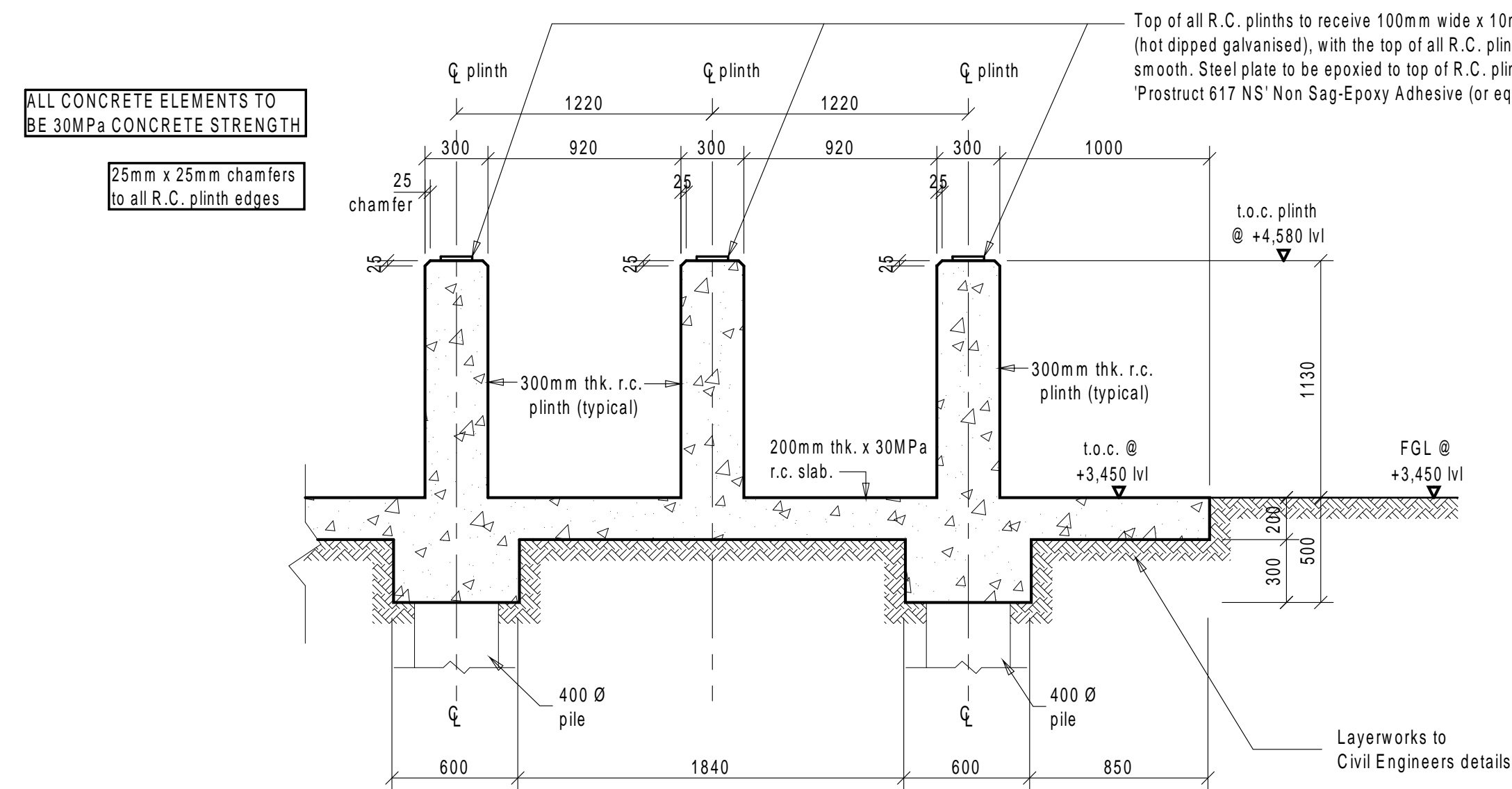
Enquiry Number: HOAC_VAR_0000030176

Description of the Work: Design, Install and Commissioning of a Fire Hydrant System in Bayhead Marshalling Yard

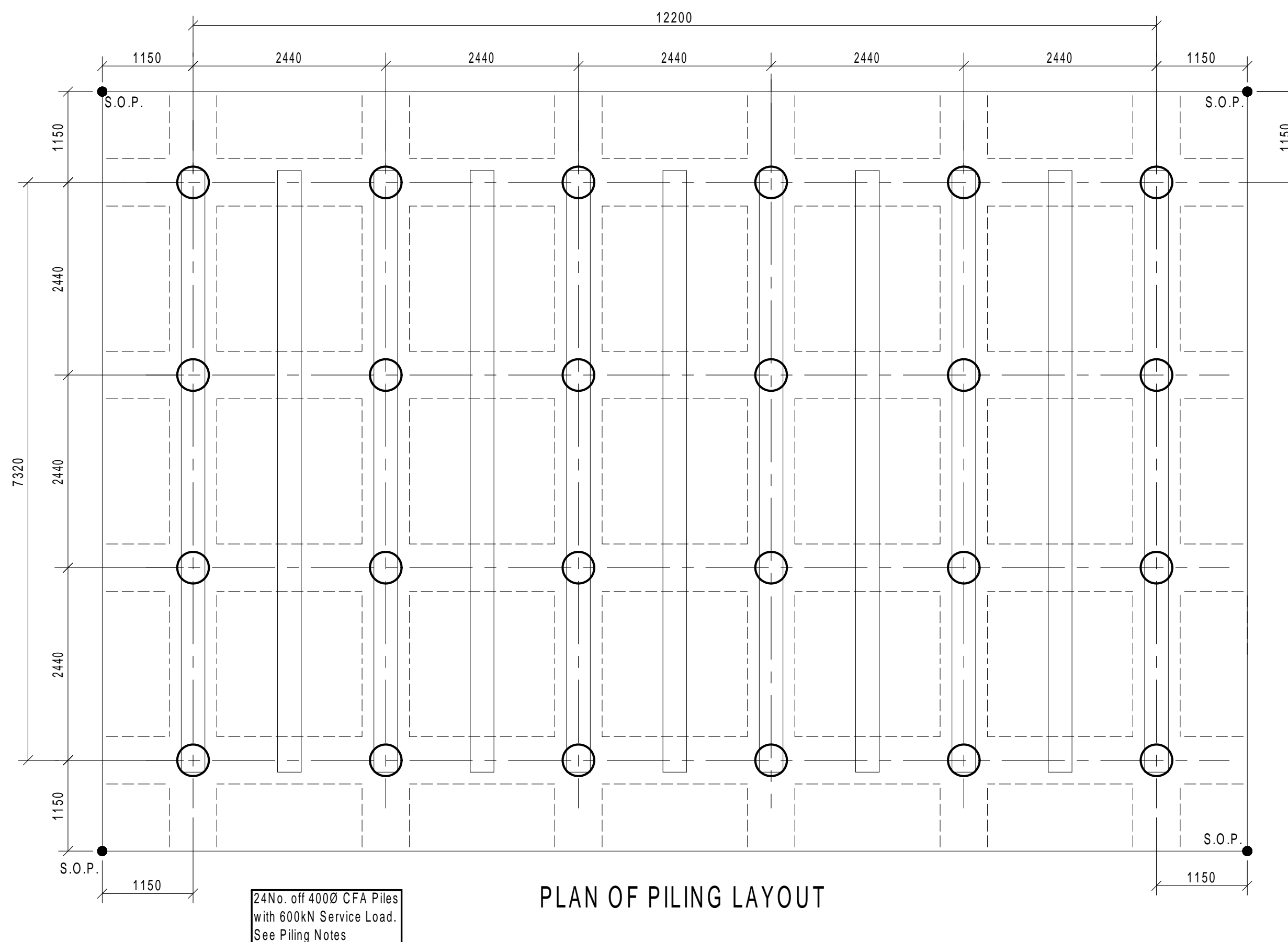
ANNEXURES



PLAN OF PILED RAFT FOUNDATION



A - A



PLAN OF PILING LAYOUT

PILING NOTES :-

- ALL PILING TO BE CARRIED OUT IN ACCORDANCE WITH SABS 1200F.
- THE RESPONSIBILITY FOR THE DESIGN AND PERFORMANCE OF ALL PILES SHALL LIE WITH THE PILING CONTRACTOR AND THE PILING CONTRACTOR SHALL SUPPLY A 'PILING GUARANTEE' OR A 'PILING LIABILITY INSURANCE POLICY' IN THIS REGARD. THE 'PILING GUARANTEE' OR A 'PILING LIABILITY INSURANCE POLICY' IS TO BE IN PLACE FOR A MINIMUM PERIOD OF 3 YEARS AFTER THE FINAL PILE HAS BEEN INSTALLED. THE PILING CONTRACTOR'S PILE DESIGN ENGINEER MUST SUBMIT A 'CERTIFICATE OF STABILITY' TO THE PRINCIPAL STRUCTURAL ENGINEER ON COMPLETION OF THE PILING CONTRACT.
- THE 'PILING LIABILITY INSURANCE POLICY' SHOULD HAVE INSURANCE COVER FOR THE FOLLOWING SECTIONS :-
 - PUBLIC LIABILITY COVER.
 - GENERAL CONSTRUCTION LIABILITY COVER.
 - FOUNDATION FAILURE INDEMNITY COVER.
 - PRODUCTS AND DEFECTIVE WORKMANSHIP LIABILITY COVER.
 - THE 'CERTIFICATE OF INSURANCE' IS TO BE SUBMITTED TO THE PRINCIPAL STRUCTURAL ENGINEER FOR APPROVAL.
 - THE LIMIT OF INDEMNITY AND THE REQUIRED INSURANCE COVER AMOUNTS WILL BE AS STIPULATED IN THE PILING TENDER DOCUMENT OR AS ADVISED BY THE APPOINTED QUANTITY SURVEYOR.
- CONCRETE STRENGTH FOR ALL PILES AT 28 DAYS IS 30 MPa. CONCRETE CUBE TESTS TO BE CARRIED OUT ON PILE GROUT FOR EVERY 20 PILES INSTALLED. 6 CUBES TO BE TAKEN AFTER EVERY 20 PILES INSTALLED (3 CUBES TO BE TESTED AT 7 DAYS AND 3 CUBES TO BE TESTED AT 28 DAYS). RESULTS OF THE CUBE TESTS TO BE SUBMITTED TO THE PRINCIPAL STRUCTURAL ENGINEER FOR APPROVAL.
- PILE TYPE IS Ø400 PRESSURE GROUTED CONTINUOUS FLIGHT AUGER PILE WITH A SERVICE LOAD OF 600kN.
- PILE CUT-OFF LEVEL TO BE 50mm ABOVE SOFFIT OF THE PILECAP OR AS INDICATED ON THE PILING LAYOUTS WITH 500mm PILE REBAR PROJECTION.
- PILE INTEGRITY TESTING IS TO BE CARRIED OUT ON ALL PILES BY AN INDEPENDENT GEOTECHNICAL ENGINEER. NO 'IN-HOUSE' INTEGRITY TESTING BY THE PILING CONTRACTOR WILL BE ACCEPTED.
- ALL PILE SETTING OUT IS TO BE CARRIED OUT BY THE PILING CONTRACTOR AND VERIFIED BY THE MAIN CONTRACTOR WHOM ASSUMES FULL RESPONSIBILITY FOR THE PILE SETTING OUT. ALL PILE POSITIONS ARE TO BE SET OUT BY THE PILING CONTRACTOR'S REGISTERED ENGINEERING SURVEYOR.
- THE FINAL PILING DESIGN IS TO BE SUBMITTED BY THE PILING CONTRACTOR TO THE APPOINTED GEOTECHNICAL ENGINEER FOR APPROVAL. THE COST FOR THIS APPROVAL PROCESS IS TO BE PROVIDED FOR BY THE PILING CONTRACTOR. THE PILING CONTRACTOR CAN ONLY COMMENCE WITH PILING, PENDING THE APPROVAL OF THE FINAL PILE DESIGN FROM THE APPOINTED GEOTECHNICAL ENGINEER AND THE APPROVAL FROM THE PRINCIPAL STRUCTURAL ENGINEER.
- THE MAXIMUM PERMISSIBLE DEVIATION OF THE PILE POSITIONS SHALL BE 50mm.
- ALL PILES ARE TO BE NEATLY TRIMMED TO PILE CUT-OFF LEVEL. THE TOP SURFACE OF ALL TRIMMED PILES IS TO BE FINISHED 'LEVEL AND SMOOTH'. AN APPROVED NON-SHRINK LEVELING CONCRETE GROUT MUST BE ALLOWED FOR THE BY CONTRACTOR TO ACHIEVE THE 'LEVEL AND SMOOTH' FINISH REQUIREMENT NOTED ABOVE.
- TWO COPIES OF AN 'AS-BUILT' LOCATION DRAWING SIGNED BY THE PILING CONTRACTOR SHOWING THE PRECISE POSITION OF EVERY PILE SHALL BE SUPPLIED TO THE PRINCIPAL STRUCTURAL ENGINEER. ANY PILE OUTSIDE THE TOLERANCE LIMITS SPECIFIED SHALL BE CLEARLY HIGHLIGHTED ON THE 'AS-BUILT' LAYOUT.


NOTES

- ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS.
- ALL CONCRETE WORK TO COMPLY WITH SABS 1200G.
- CONCRETE CLASS :-
 - PILECAPS & GROUND BEAMS = 30 MPa
 - STRIP FOOTINGS & BASES = 25 MPa
 - COLUMNS, SHEAR & LIFT WALLS = 30 MPa
 - SLABS, BEAMS & STAIRCASES = 25 MPa
 - RAFT SLABS = 30 MPa
 - SURFACE BEDS = 30 MPa
 - BLINDING = 10 MPa
- COVER TO REINFORCEMENT :- AS INDICATED ON DRAWING
- ALL FOUNDATION EXCAVATIONS TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
- ALL REINFORCING FIXING TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
- SIX CUBES TO BE TAKEN PER POUR. THREE TO BE TESTED AT SEVEN DAYS. THE REMAINDER AT TWENTY EIGHT DAYS. THE RESULTS TO BE FORWARDED TO THE ENGINEER.
- CONTRACTOR TO CONSTRUCT A BLINDING LAYER IF SOIL CONDITIONS RESULT IN REINFORCEMENT COVER NOT BEING MAINTAINED.
- ALL STRUCTURAL CONCRETE TO BE CURED FOR A MINIMUM OF FIVE DAYS.
- BRICKWORK SHOWN HATCHED ARE LOAD BEARING. ALL LOAD BEARING BRICKWORK TO BE 14MPa NFX. TOP OF ALL BRICKWORK TO RECEIVE 2 LAYERS OF 3 PLY MALTHOID ON SMOOTH RENDERED SURFACE.
- ALL SINGLE SKIN BRICKWORK TO BE STOPPED 2 COURSES BELOW SOFFIT OF SLAB AND COMPLETED AFTER PROPS HAVE BEEN REMOVED.
- ALL CONCRETE PLASTER AND BRICKWORK PLASTER INTER-FACES TO RECEIVE V-JOINTS.
- THE ENGINEER REQUIRES 24HRS NOTICE FOR ALL INSPECTIONS.

FOR TENDER PURPOSES ONLY


REV	DESCRIPTION	BY	DATE
T1	ISSUED FOR TENDER	YR	15/05/20

professional person M.NAIR PrTechEng		registration 200670211	
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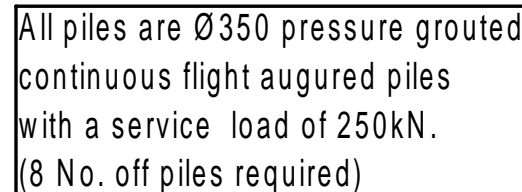
PROJECT	TRANSNET FREIGHT RAIL MARSHALLING YARDS BAYHEAD ROAD, DURBAN
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DETAILS	NEW FIRE HYDRANT SYSTEM WATER STORAGE TANK FOUNDATION PILING & CONCRETE LAYOUT & DETAILS
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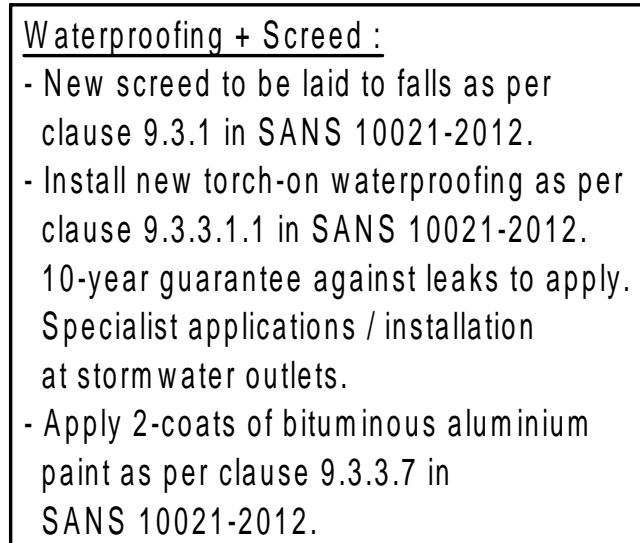
<div></div> <div>SUITE 102, NASHUA HOUSE, 14A MAZENOD ROAD, MORNINGSIDE, DURBAN e-mail : admin@mapafrica.co.za FAX (031) 3092929 TEL. (031) 3095831</div>			
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APPROVED	MN	DATE 22/01/2019	

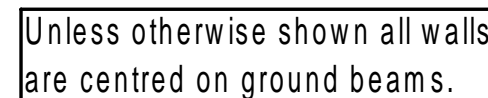
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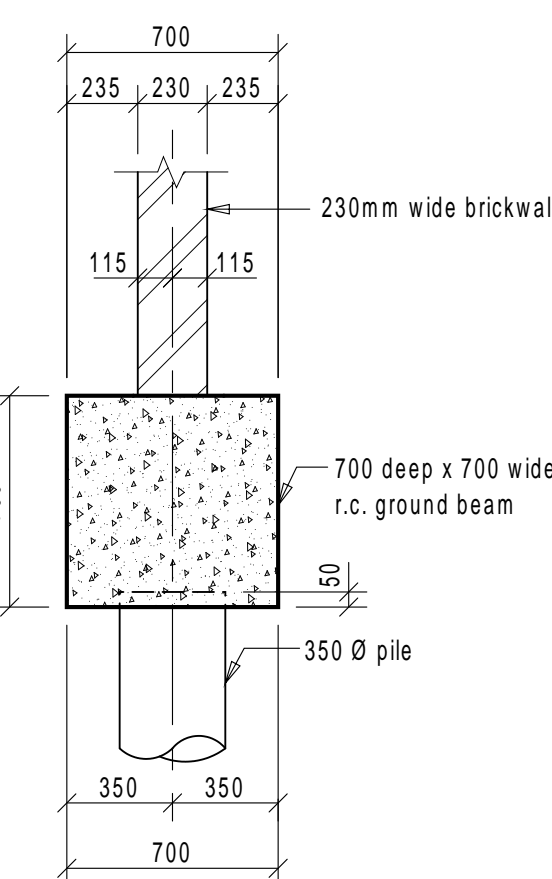
PILING LAYOUT



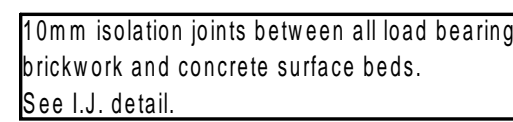
Structural reinforcement allowance for r.c. roof slab = 150kg/m^3 .



Structural Reinforcement Allowance
Ground Beams = 150kg/m³



TYPICAL SECTION THROUGH
GROUND BEAM



SURFACE BED & PLINTH LAYOUT

10mm deep x 100mm wide
Dow Corning 813C silicone
sealant (or equally approved)
on 10mm thk. polystyrene backing

100

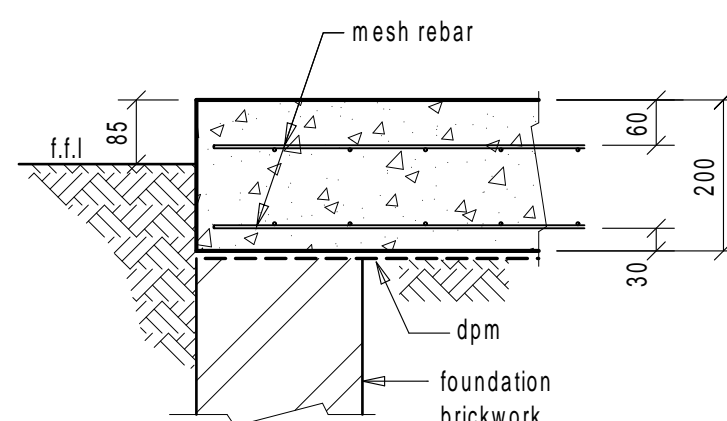
mesh rebar

60

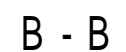
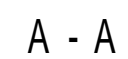
30

dpm

TYPICAL ISOLATION
JOINT DETAIL (I.J.)
FOR 200mm THK. SURFACE BED



EXTERNAL DOOR THRESHOLD
FOR 200mm THK. SURFACE BED



- #### PILING NOTES :-

1. ALL PILING TO BE CARRIED OUT IN ACCORDANCE WITH SABS 1100F.
2. THE RESPONSIBILITY FOR THE DESIGN AND PERFORMANCE OF ALL PILES SHALL LIE WITH THE PILING CONTRACTOR AND THE PILING CONTRACTOR SHALL SUPPLY A PILING GUARANTEE OR A PILING LIABILITY INSURANCE POLICY IN THIS REGARD. THE PILING GUARANTEE OR A PILING LIABILITY INSURANCE POLICY IS TO BE IN PLACE FOR A MINIMUM PERIOD OF 7 YEARS AFTER THE FINAL PILE HAS BEEN INSTALLED. THE PILING CONTRACTOR'S DESIGN RESPONSIBILITY SHALL BE SUCH A GUARANTEE OF STABILITY TO THE PRINCIPAL STRUCTURAL ENGINEER ON COMPLETION OF THE PILING CONTRACT.
3. THE PILING LIABILITY INSURANCE POLICY SHOULD HAVE INSURANCE COVER FOR THE FOLLOWING SECTIONS :-
 - a) PUBLIC LIABILITY COVER.
 - b) GENERAL CONSTRUCTION LIABILITY COVER.
 - c) FOUNDATION FAILURE INDEMNITY COVER.
 - d) PRODUCTS AND DEFECTIVE WORKMANSHIP LIABILITY COVER.
 - e) THE CERTIFICATE OF INSURANCE IS TO BE SUBMITTED TO THE PRINCIPAL STRUCTURAL ENGINEER FOR APPROVAL.
4. (THE LIMIT OF INDEMNITY AND THE REQUIRED INSURANCE COVER AMOUNTS WILL AS BE STIPULATED IN THE PILING TENDER DOCUMENT OR AS ADVISED BY THE APPOINTED QUANTITY SURVEYOR.
5. CONCRETE STRENGTH FOR ALL PILES AT 28 DAYS IS 30 MPa. CONCRETE CUBE TESTS TO BE CARRIED OUT ON PILE GROUT FOR EVERY 20 PILES INSTALLED. 6 CUBES TO BE TAKEN AFTER 7 DAYS AND 14 CUBES TO BE TESTED AT 28 DAYS AND 3 CUBES TO BE TESTED AT 28 DAYS. RESULTS OF THE CUBE TESTS TO BE SUBMITTED TO THE PRINCIPAL STRUCTURAL ENGINEER FOR APPROVAL.
6. PILE TYPE IS Ø350 PRESSURE GROUTED CONTINUOUS FLIGHT AUGER PILE WITH A SERVICE LOAD OF 250kN.
7. PILE CUT-OFF LEVEL TO BE 50mm ABOVE SOFFIT OF THE GROUND BEAM OR AS INDICATED ON THE PILING LAYOUTS WITH 150mm PILE REBAR PROJECTION.
8. GEOTECHNICAL TESTING IS TO BE CARRIED OUT ON ALL PILES BY AN INDEPENDENT GEOTECHNICAL ENGINEER. NO IN-HOUSE INTEGRITY TESTING BY THE PILING CONTRACTOR WILL BE ACCEPTED.
9. ALL PILE SETTING OUT IS TO BE CARRIED OUT BY THE PILING CONTRACTOR AND VERIFIED BY THE MAIN CONTRACTOR WHOM ASSUMES FULL RESPONSIBILITY FOR THE PILE SETTING OUT. ALL PILE POSITIONS ARE TO BE SET OUT BY THE PILING CONTRACTOR'S REGISTERED ENGINEERING SURVEYOR.
10. THE FINAL PILING DESIGN IS TO BE SUBMITTED BY THE PILING CONTRACTOR TO THE APPOINTED GEOTECHNICAL ENGINEER FOR APPROVAL. THE COST FOR THIS APPROVAL SHALL BE TO BE PROVIDED FOR BY THE PILING CONTRACTOR. THE PILING CONTRACTOR CAN ONLY COMMENCE WITH PILING, PENDING THE APPROVAL OF THE FINAL PILE DESIGN FROM THE APPOINTED GEOTECHNICAL ENGINEER AND THE APPROVAL FROM THE PRINCIPAL STRUCTURAL ENGINEER.
11. THE MAXIMUM PERMISSIBLE DEVIATION OF THE PILE POSITIONS SHALL BE 50mm.
12. ALL PILES ARE TO BE NEATLY TRIMMED TO PILE CUT-OFF LEVEL. THE TOP SURFACE OF ALL TRIMMED PILES IS TO BE FINISHED LEVEL AND SMOOTH. AN APPROVED NON-SHRINK LEVelling CONCRETE GROUT MUST ALLOWED FOR THE BY CONTRACTOR TO ACHIEVE THE LEVEL AND SMOOTH FINISH REQUIREMENT NOTED ABOVE.
13. TWO COPIES OF AN 'AS-BUILT' LOCATION DRAWING SIGNED BY THE PILING CONTRACTOR SHOWING THE PRECISE POSITION OF EVERY PILE SHALL BE SUPPLIED TO THE PRINCIPAL ENGINEER. ALL PILES MUST BE IDENTIFIED BY A PERMANENTLY IDENTIFIABLE LABELS SPECIFIED SHALL BE CLEARLY HIGHLIGHTED ON THE 'AS-BUILT' LAYOUT.

NOTES

1. ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS.
3. ALL CONCRETE WORK TO COMPLY WITH SABS 1200G.
4. CONCRETE CLASS :
 - a) PILECAPS & GROUND BEAMS ~ 30 MPa
 - b) STRIP FOOTINGS & BASES ~ 25 MPa
 - c) COLUMNS, SHEAR & LIFT WALLS ~ 30 MPa
 - d) SLABS, BEAMS & STAIRCASES ~ 25 MPa
 - e) RETAINING WALLS ~ 25 MPa
 - f) SURFACE BEDS ~ 30 MPa
5. BLINDING ~ 10 MPa
6. BLINDING
7. COVER TO REINFORCEMENT : -
AS INDICATED ON DRAWING
8. ALL FOUNDATION EXCAVATIONS TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
9. ALL REINFORCING FIXING TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
10. SIX CURBS TO BE TAKEN PER LOT.
11. THREE TO BE TESTED AT SEVEN DAYS, THE REMAINDER AT TWENTY EIGHT DAYS. THE RESULTS TO BE FORWARDED TO THE ENGINEER.
12. CONTRACTOR TO CONSTRUCT A BLINDING LAYER IF SOIL CONDITIONS RESULT IN REINFORCEMENT COVER NOT BEING MAINTAINED.
13. ALL STRUCTURAL CONCRETE TO BE CURED FOR A MINIMUM OF FIVE DAYS.
14. BRICKWORK SHOWN HATCHED ARE LOAD BEARING ALL LOAD BEARING BRICKWORK TO BE 14MPa NF1X. TOP OF ALL BRICKWORK TO RECEIVE 2 LAYERS OF M4 MORTAR ON JOINTS.
15. ALL SINGLE SKIN BRICKWORK TO BE STOPPED 3 COURSES BELOW SOFFIT OF SLAB AND COMPLETED AFTER PROPS HAVE BEEN REMOVED.
16. ALL CONCRETE PLASTER AND BRICKWORK PLASTER HATCHED ARE TO RECEIVE V-JOINTS.
17. THE ENGINEER REQUIRES 24HRS NOTICE FOR ALL INSPECTIONS.

REV	DESCRIPTION	BY	DATE
T1	ISSUED FOR TENDER	YR	15/05/20

professional person M.NAIR PrTechEng registration 200670211

CLIENT

TRANSMISSION



PROJECT

TRANSNET FREIGHT RAIL
MARSHALLING YARDS
BAYHEAD ROAD, DURBAN

DETAILS

NEW FIRE HYDRANT SYSTEM
PUMP ROOM
STRUCTURAL LAYOUT & DETAILS



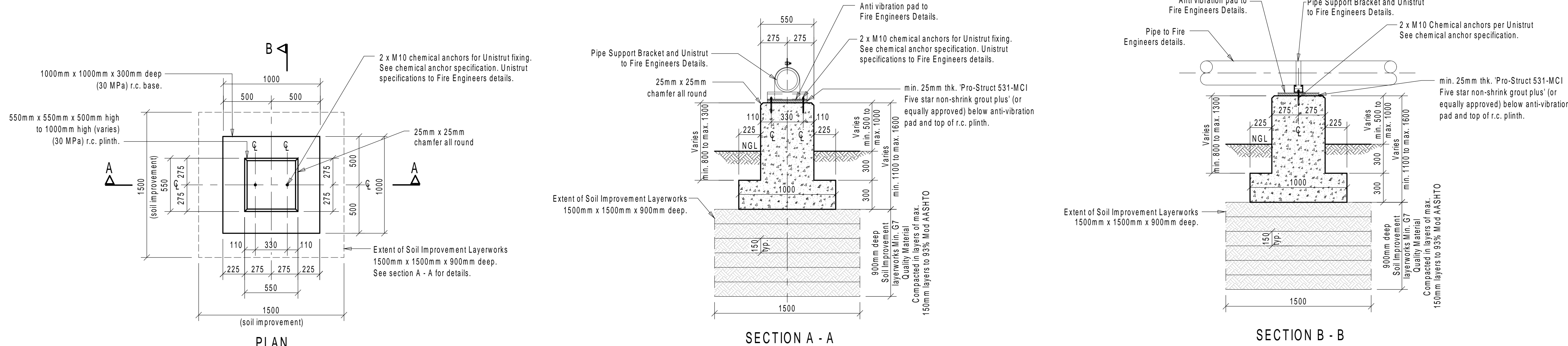
SUITE 102, WHEELER HOUSE, 14A DE MAZENOD ROAD, MORNINGSIDe, DURBAN
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FAX (031) 3092029 TEL. (031) 3095831

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APPROVED	M.N	PL	DATE 22/01/2019

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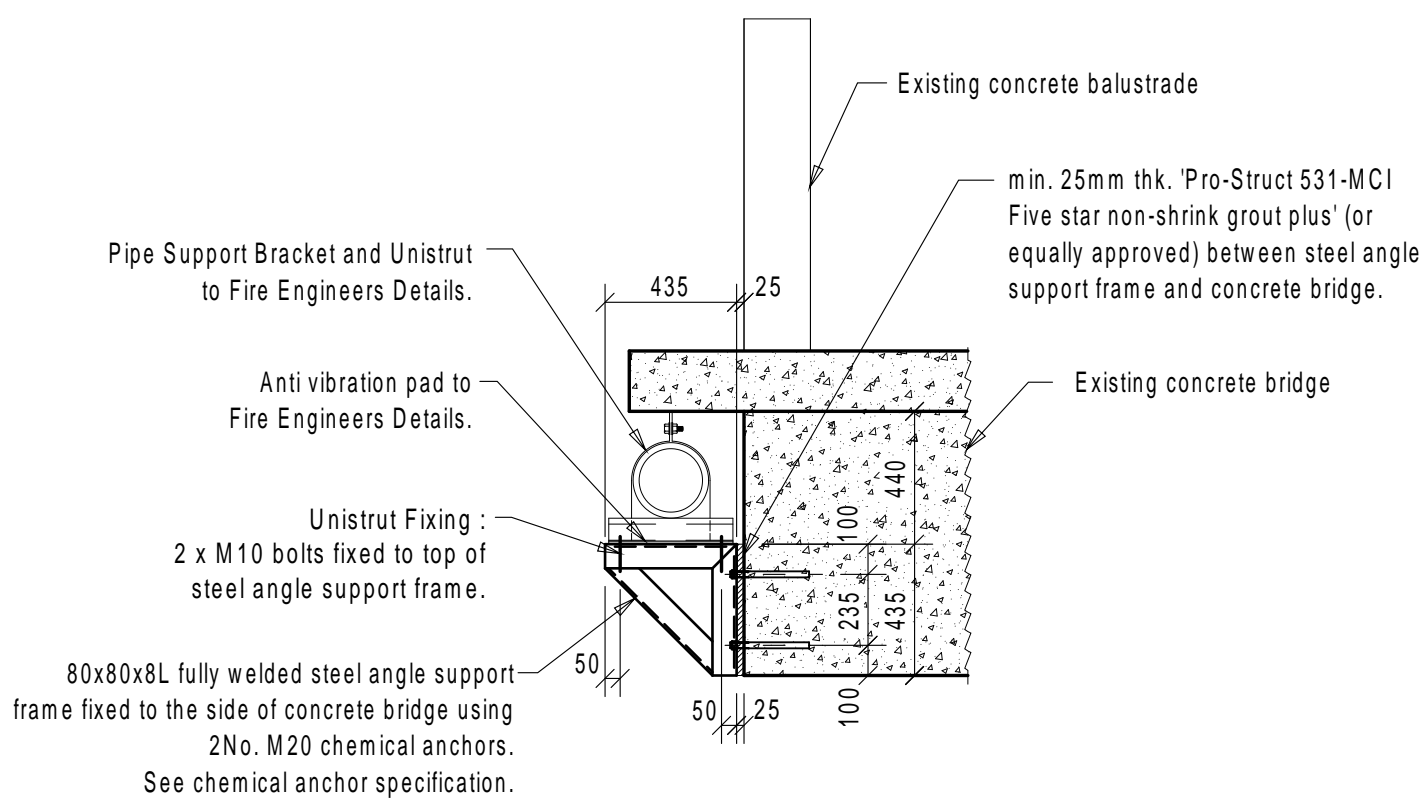
- GENERAL NOTES :-**
1. All concrete work to comply with SABS 1200G.
 2. Concrete class :-
All r.c. Plinths & r.c. bases = 30 MPa @ 28 days.
 3. 25mm x 25mm chamfers to all exposed concrete edges / surfaces.
 4. Six cubes to be taken per concrete pour.
Three cubes to be tested at seven days, the remainder at twenty eight days. The results to be forwarded to the engineer.
 5. All reinforcing fixing to be inspected by the engineer prior to casting of concrete.
 6. The engineer requires 24hrs notice for all inspections.

TYPICAL PIPE PLINTH CONCRETE SUPPORT STRUCTURE

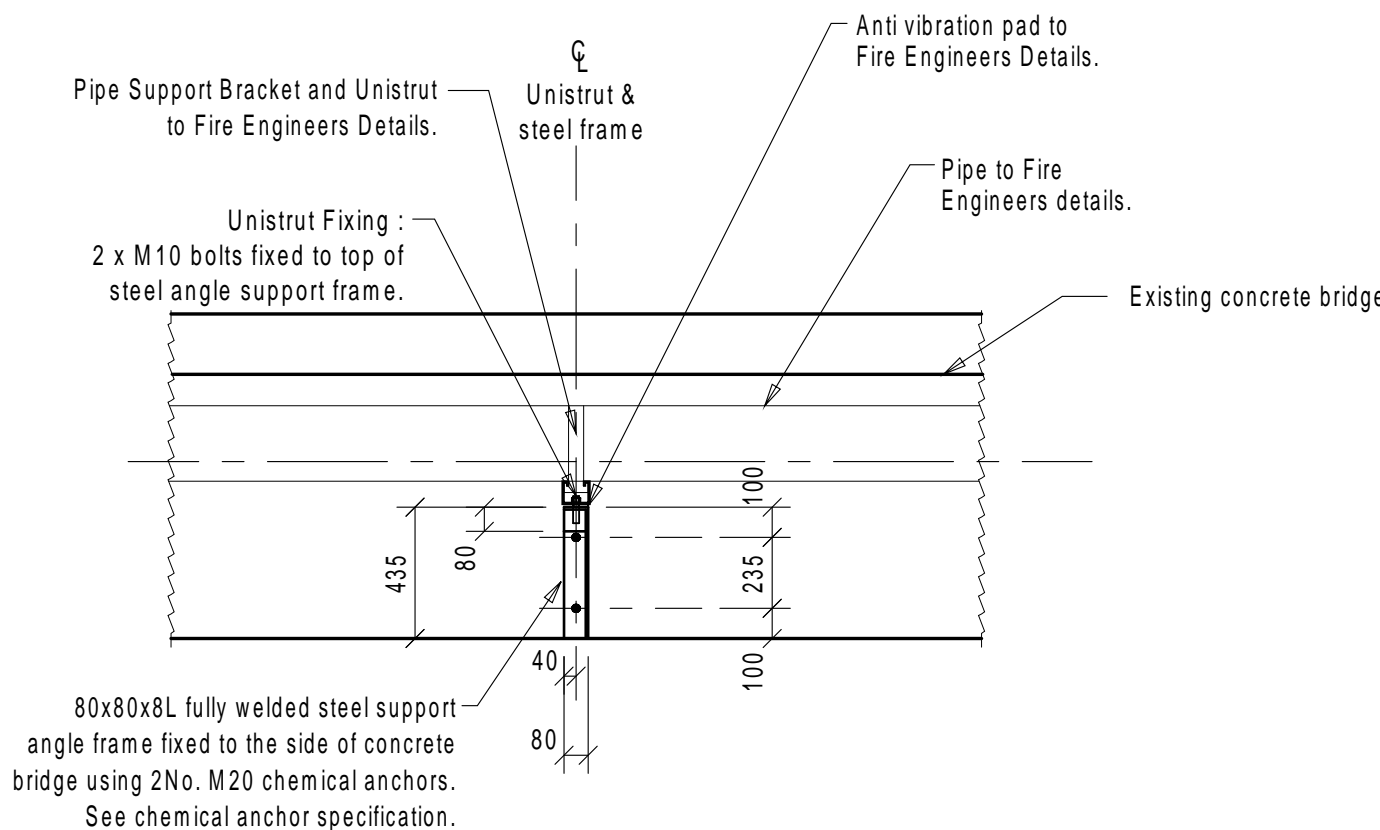
(Placed at 6m c/c)
(Allow for : 310 No. off support structures)

ALLOWANCES
REINFORCEMENT :
Plinth and Base = 150 kg/m³

M10 CHEMICAL ANCHOR SPECIFICATION :-
Fischer M10 (8.8) galvanised H.D. Anchor Studs (with embedment length = 100mm) with Fischer FIS-V-360 Chemical Mortar or equally approved Chemical Anchors with 'ETA' (European Technical Approval).
Note: Final embedment length of Anchor Studs to be confirmed by Chemical Anchor Supplier.



TYPICAL SECTION



TYPICAL ELEVATION

TYPICAL FIXING DETAIL OF STEEL ANGLE SUPPORT FRAME TO SIDE OF EXISTING CONCRETE BRIDGE FOR PIPE BRACKET SUPPORT

(Placed at 6m c/c)

STRUCTURAL STEEL NOTES :

1. All work in accordance with SANS 1200 H.
2. All welds to be min. 6mm continuous fillet welds (u.o.n.)
3. All structural steelwork to be grade S355JR (unless otherwise noted).
4. All structural steelwork to be hot dipped galvanised to SANS 121:2011 (ISO 1461:2009 (E)). Galvanising certificate for all steelwork is to be submitted to the Engineer on completion.
5. The structural steelwork contractor is to verify all setting out dimensions on site prior to fabrication.

NOTE :
Rebar scanning to be carried out to prove location of existing rebar, prior to chemical anchor being installed into the side of the concrete bridge.

NOTES

1. ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS.
3. ALL CONCRETE WORK TO COMPLY WITH SABS 1200G.
4. CONCRETE CLASS :-
 - a) PILECAPS & GROUND BEAMS = 30 MPa
 - b) STRIP FOOTINGS & BASES = 25 MPa
 - c) COLUMNS, SHEAR & LIFT WALLS = 30 MPa
 - d) SLABS, BEAMS & STAIRCASES = 25 MPa
 - e) RAFT SLABS = 30 MPa
 - f) SURFACE BEDS = 30 MPa
 - g) CONCRETE PLINTHS = 30 MPa
 - h) BLINDING = 10 MPa
5. COVER TO REINFORCEMENT :-
AS INDICATED ON DRAWING
6. ALL FOUNDATION EXCAVATIONS TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
7. ALL REINFORCING FIXING TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
8. SIX CUBES TO BE TAKEN PER POUR.
THREE TO BE TESTED AT SEVEN DAYS, THE REMAINDER AT TWENTY EIGHT DAYS. THE RESULTS TO BE FORWARDED TO THE ENGINEER.
9. CONTRACTOR TO CONSTRUCT A BLINDING LAYER IF SOIL CONDITIONS RESULT IN REINFORCEMENT COVER NOT BEING MAINTAINED.
10. ALL STRUCTURAL CONCRETE TO BE CURED FOR A MINIMUM OF FIVE DAYS.
11. BRICKWORK SHOWN HATCHED ARE LOAD BEARING.
ALL LOAD BEARING BRICKWORK TO BE 14MPa NFx.
TOP OF ALL BRICKWORK TO RECEIVE 2 LAYERS OF 3 PLY MALTHOID ON SMOOTH RENDERED SURFACE.
12. ALL SINGLE SKIN BRICKWORK TO BE STOPPED 2 COURSES BELOW SOFFIT OF SLAB AND COMPLETED AFTER PROPS HAVE BEEN REMOVED.
13. ALL CONCRETE PLASTER AND BRICKWORK PLASTER INTER-FACES TO RECEIVE V-JOINTS.
14. THE ENGINEER REQUIRES 24HRS NOTICE FOR ALL INSPECTIONS.

FOR TENDER PURPOSES ONLY

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professional person M.NAIR PrTechEng registration 200670211



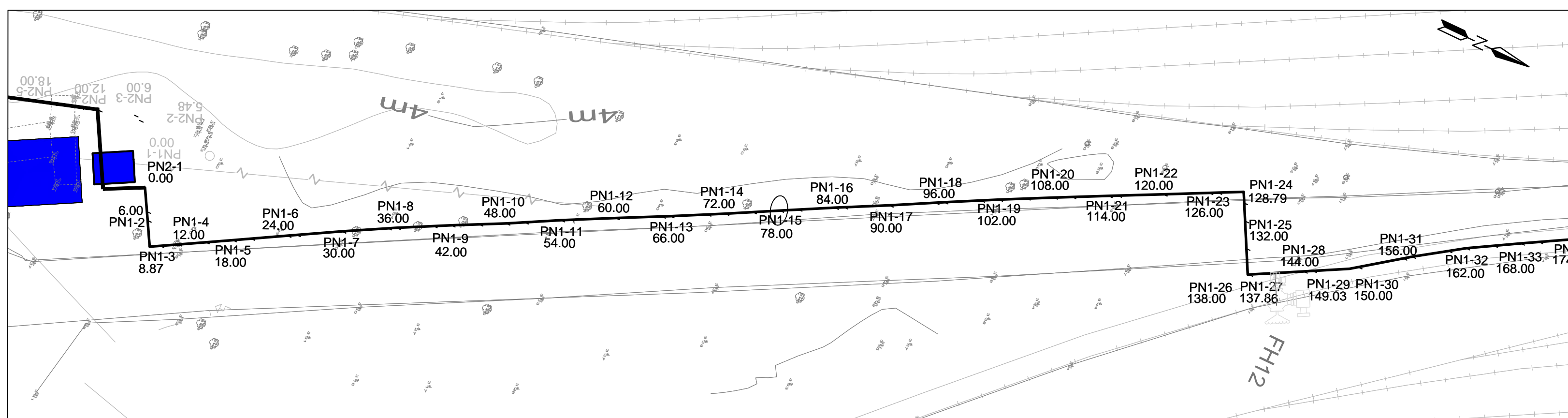
PROJECT
**TRANSNET FREIGHT RAIL
MARSHALLING YARDS
BAYHEAD ROAD, DURBAN**

DETAILS
**TYPICAL PIPE SUPPORT DETAILS
STRUCTURAL LAYOUT & DETAILS**

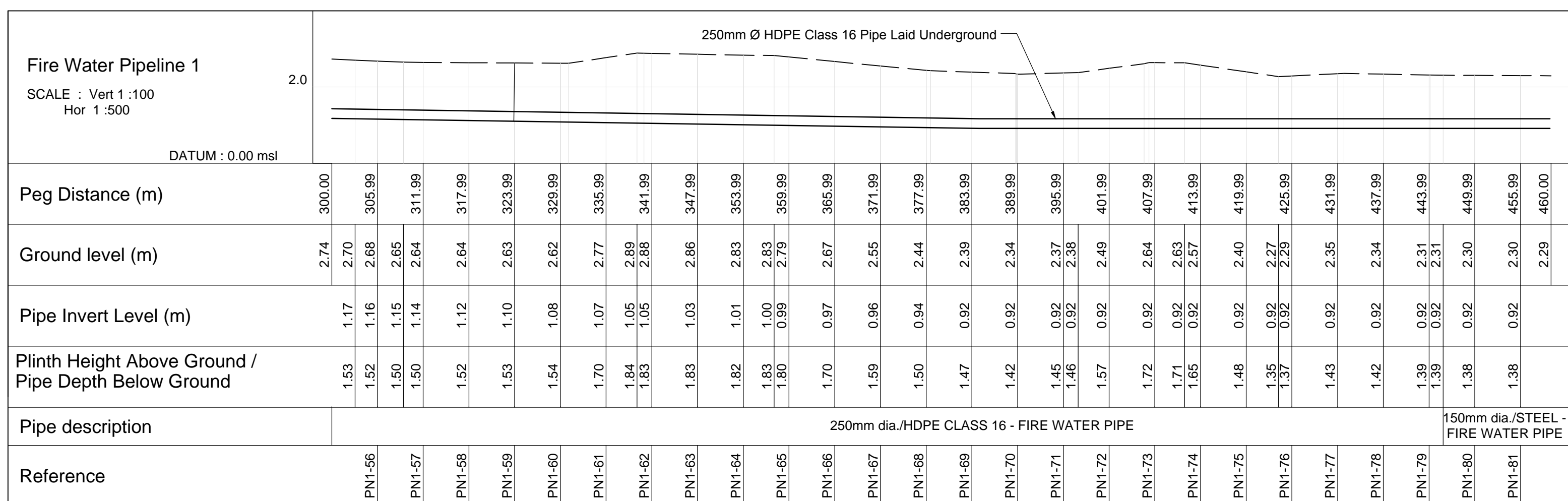
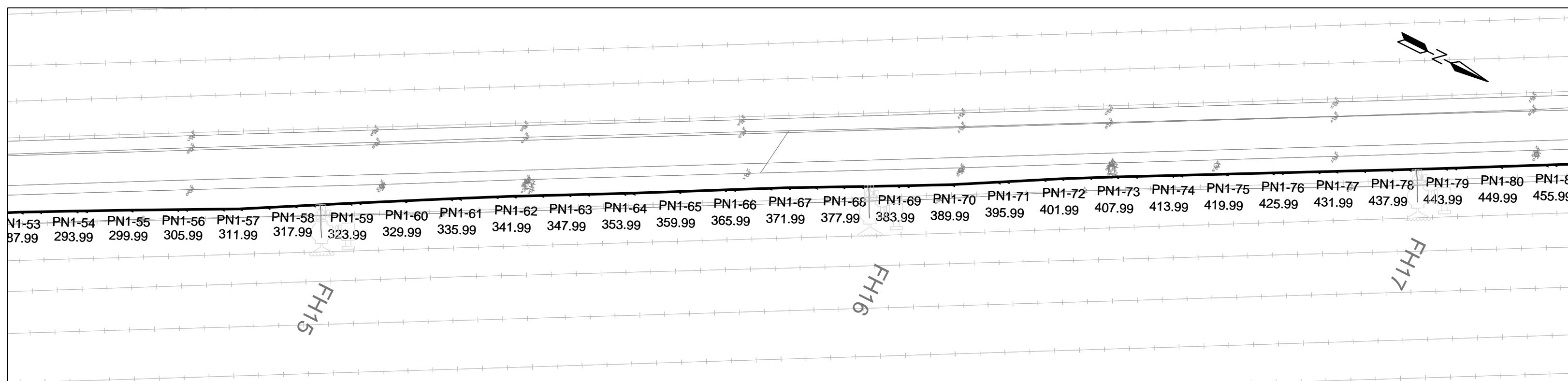


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e-mail : admin@mapafrica.co.za
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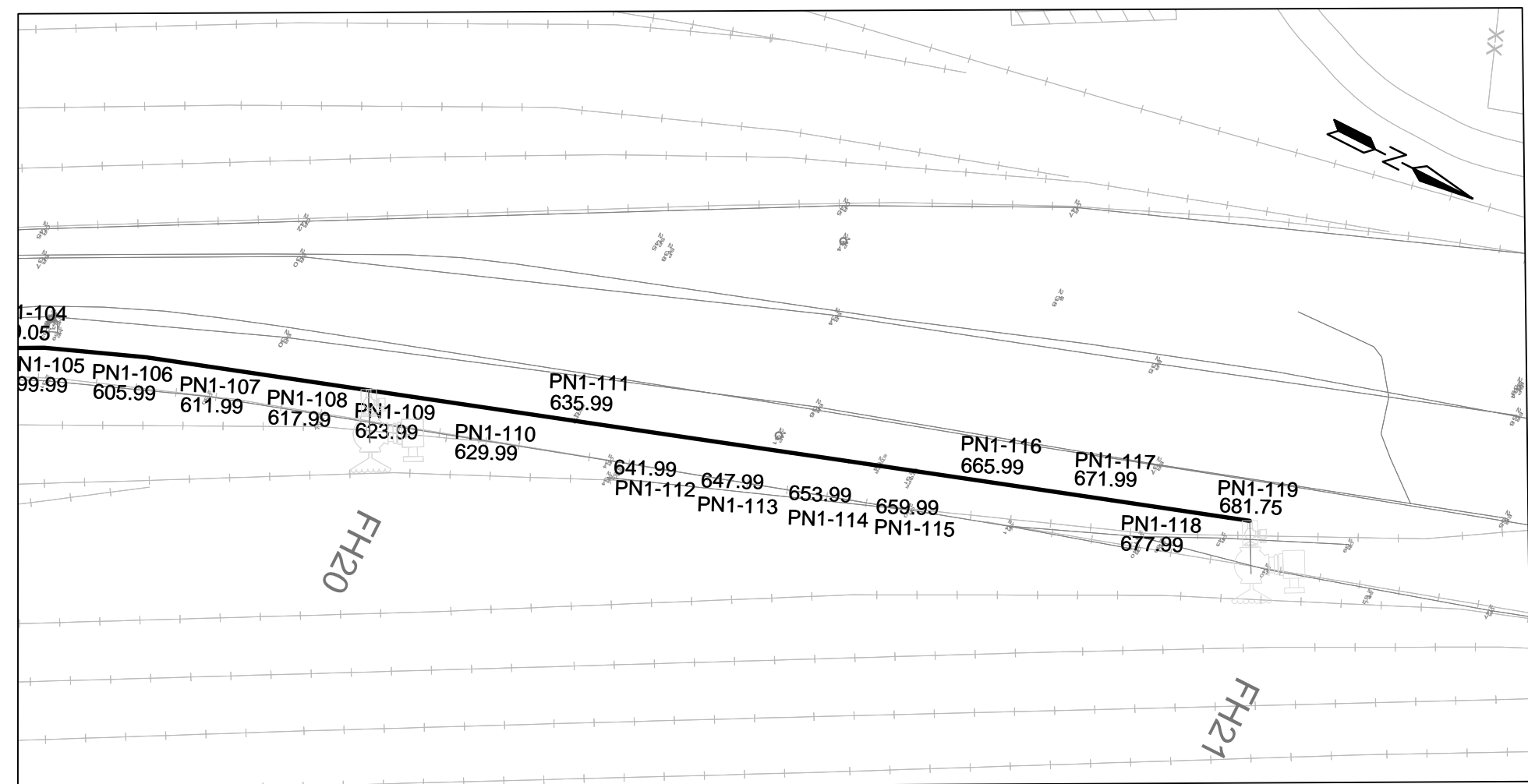
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APPROVED	MN		DATE 17/04/2019
DRAWING No.	200-277 / 302	REV	T1



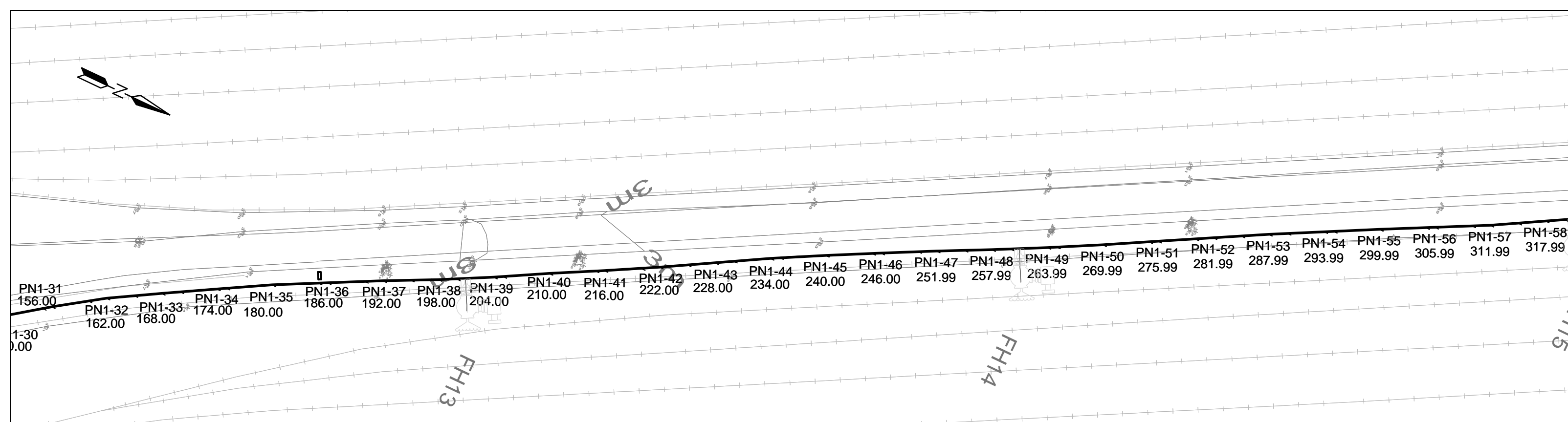
FIRE WATER PIPELINE 1
PN1-1 - PN1-31



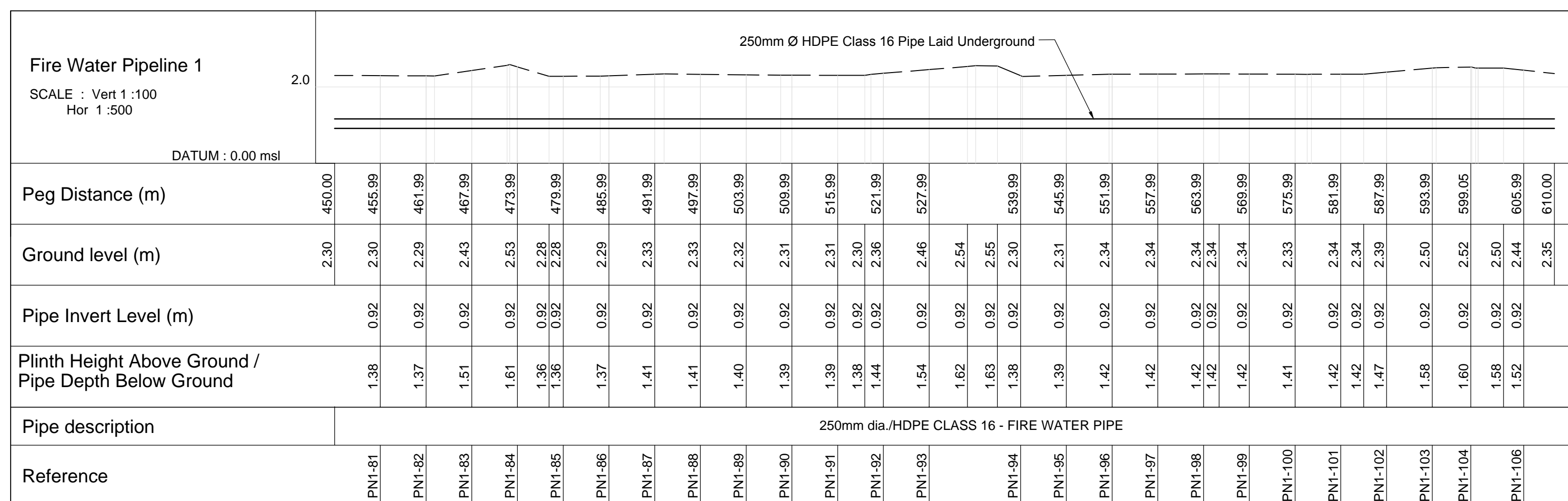
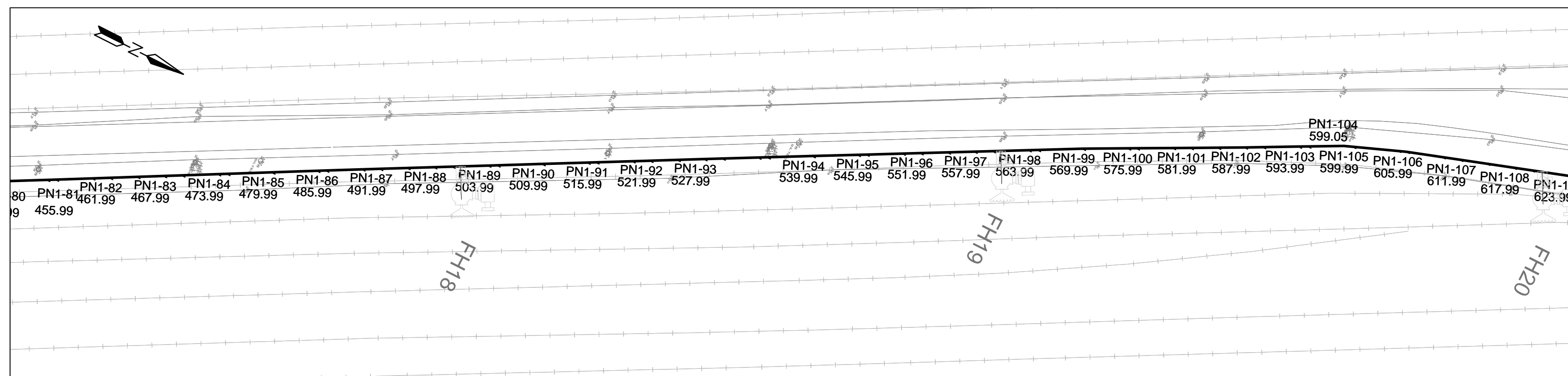
FIRE WATER PIPELINE 1
PN1-56 - PN1-81



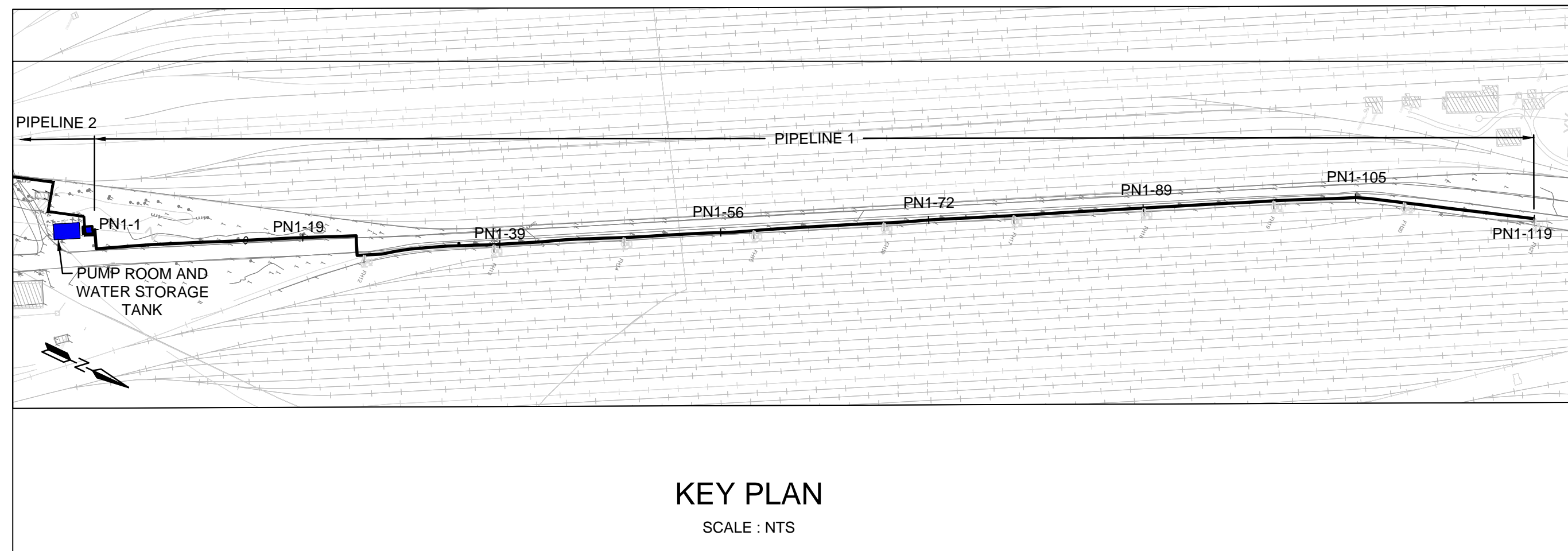
FIRE WATER PIPELINE 1
PN1-106 - PN1-119



FIRE WATER PIPELINE 1
PN1-31 - PN1-56



FIRE WATER PIPELINE 1
PN1-81 - PN1-106



FOR TENDER

NOTE:

The following is included in our scope of work:

- Detailing of the bulk fire water supply pipeline. (Essentially produce long sections.)

The following is excluded from our scope of works hence not included in this drawing:

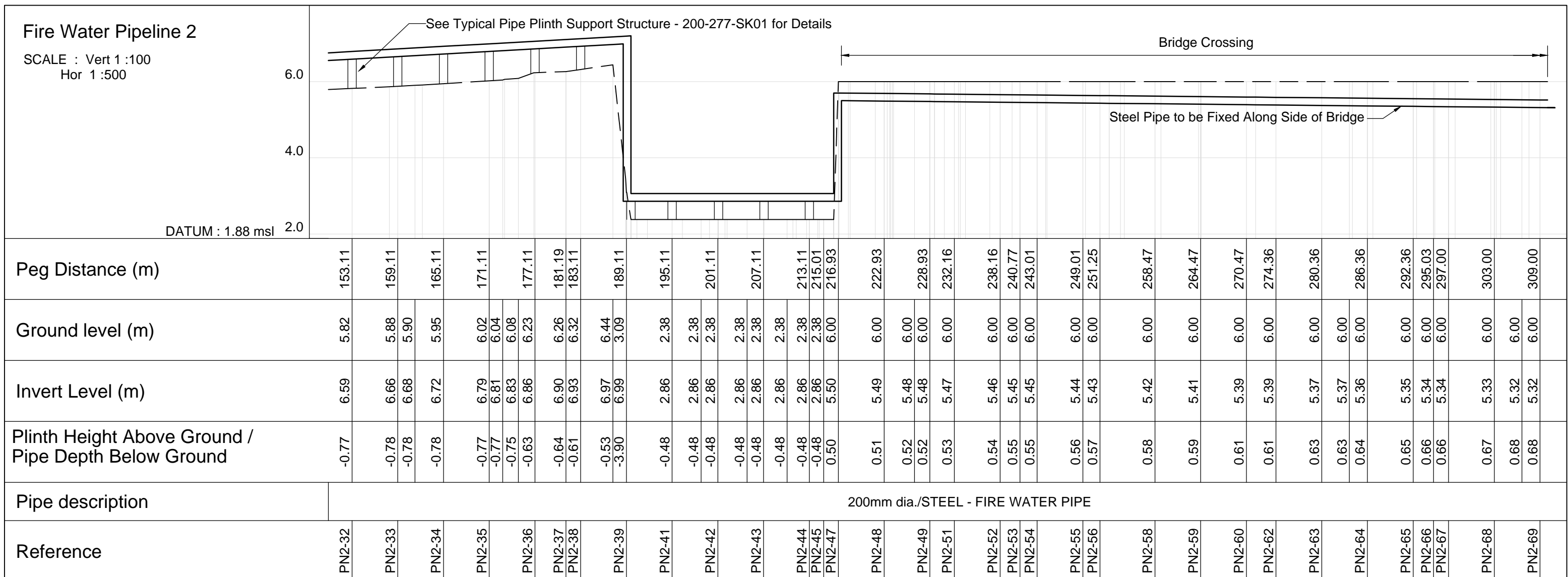
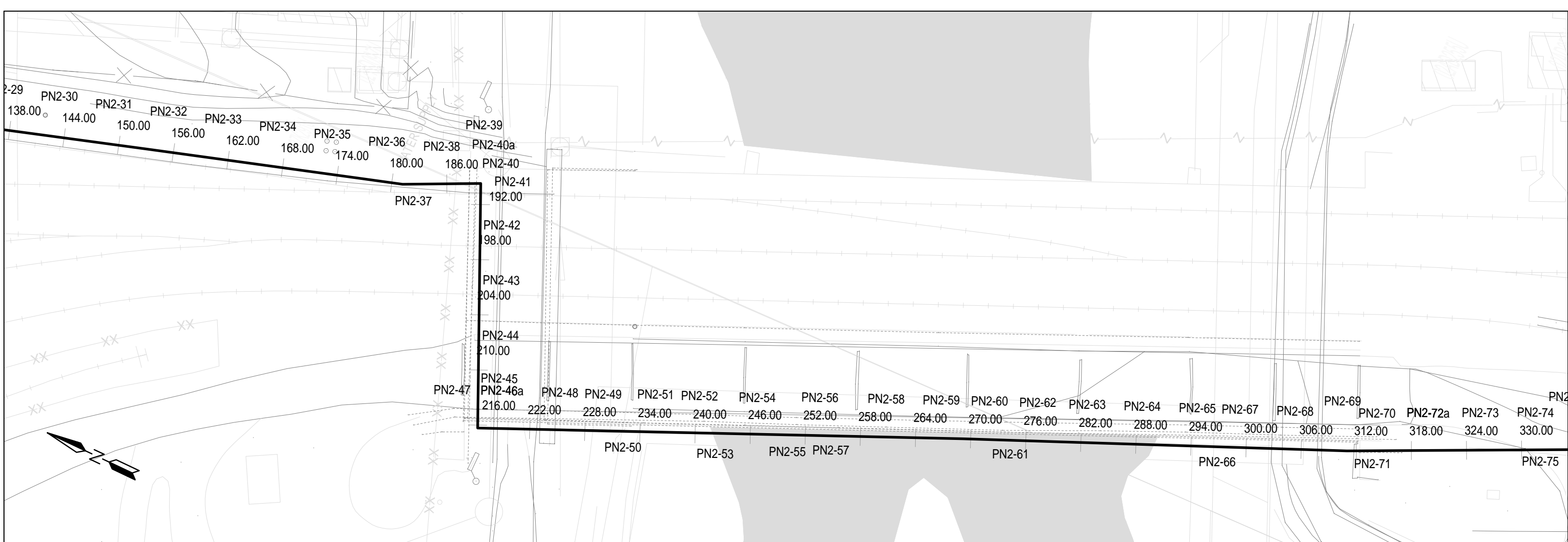
- Design and specifications of the actual Fire Water Supply pipe.
- Route selection of the fire water supply line including the hydrant positions, spacing of pipe girth supports and other equipment.
- Calculating the fire water demand and associated fire water storage requirements.
- Operating parameters (maximum pressure, flowrate + pipe size for worst case scenarios).
- Obtaining the necessary approvals, clearances, etc. for the proposed new installation.
- Specification of the pumps and equipment (hydrants, booster, etc.).
- The development and design of a Hydraulic Model for the water supply line.

Assumptions:

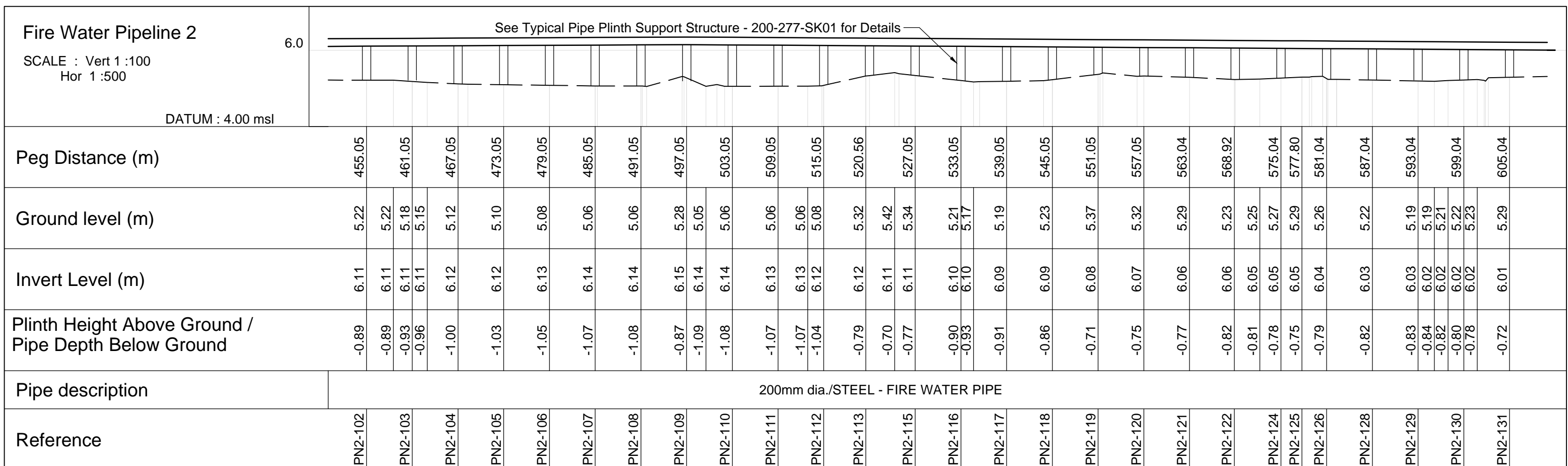
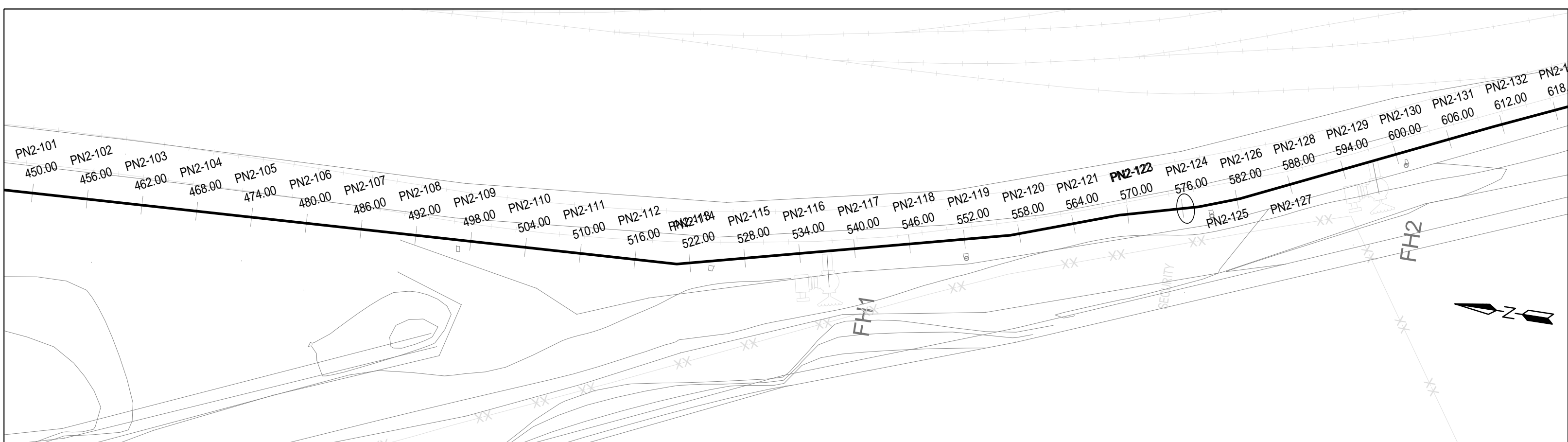
- It is assumed that the Natural Ground Line along the pipe route will remain unchanged.

Notes:

- All levels are to be verified on site.
- This drawing is to be read in conjunction with the Structural Engineers and Fire Engineers Drawings.



FIRE WATER PIPELINE 2
PN2-32 - PN2-69



FIRE WATER PIPELINE 2
PN2-102 - PN2-131



Notes:

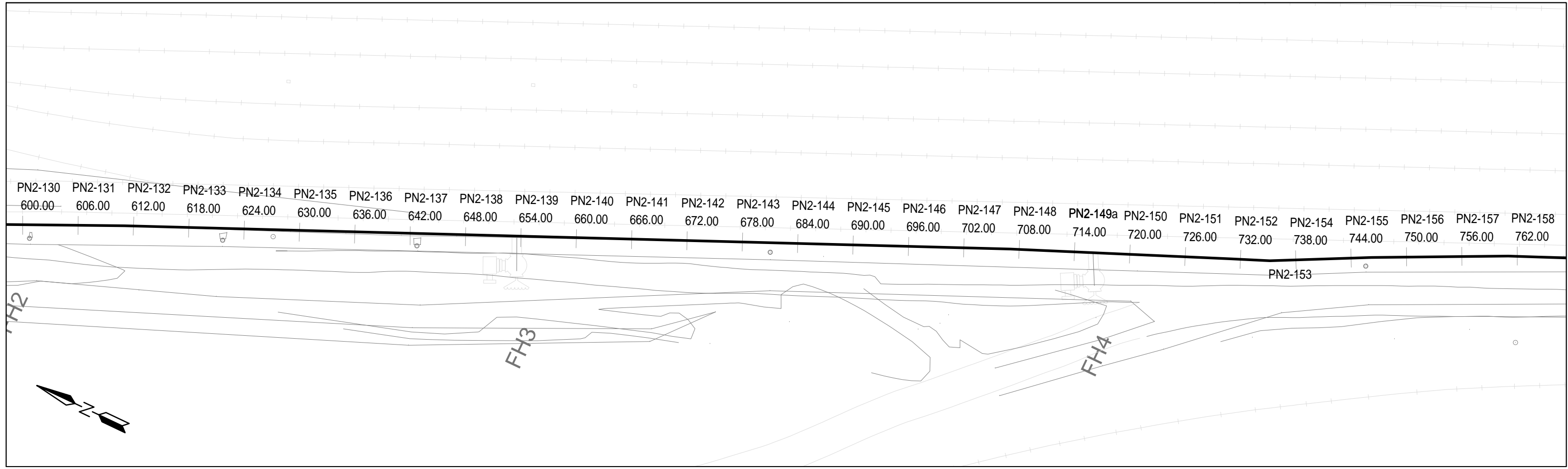
- All levels are to be verified on site.
- This drawing is to be read in conjunction with the Structural Engineers and Fire Engineers Drawings

CLIENT



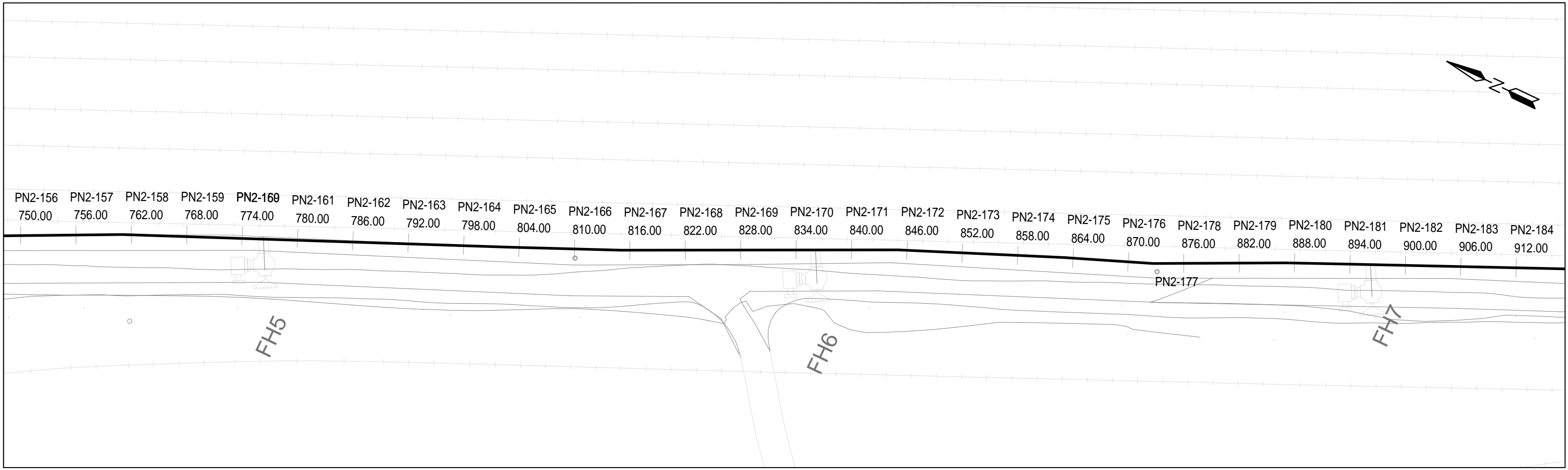
DESIGNED	A.B	COPYRIGHT RESERVED	SCALES
DRAWN	A.B		AS SHOWN
APPROVED	P.N	PL	DATE 2019.01.25

FOR TENDER



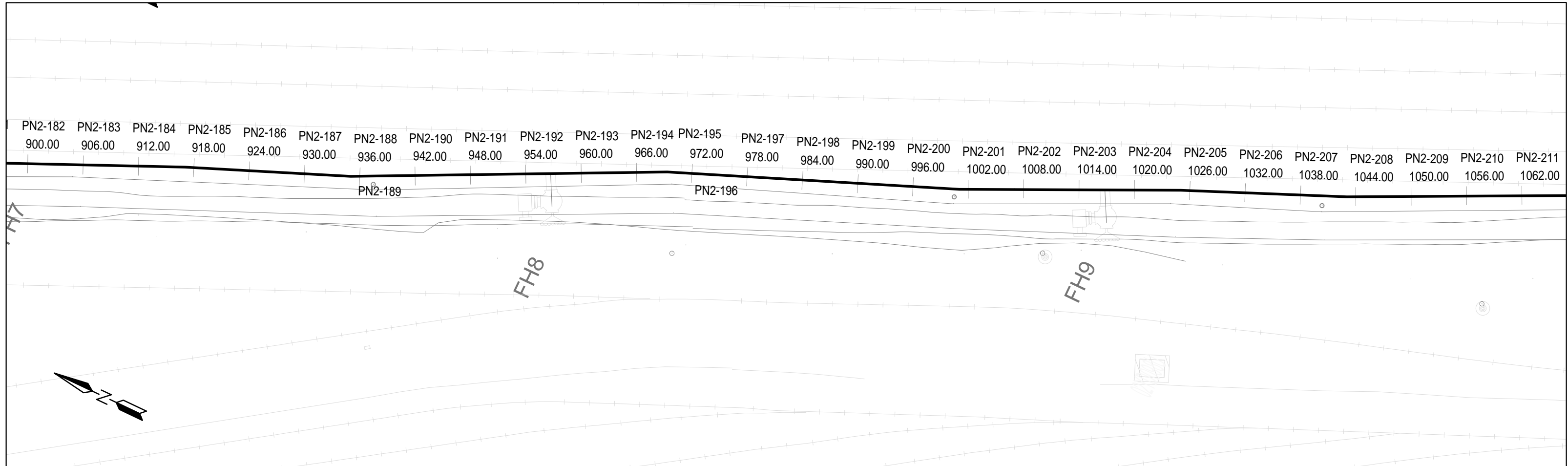
<div>Fire Water Pipeline 2</div> <div>SCALE : Vert 1:100 Hor 1:500</div>		<div>See Typical Pipe Plinth Support Structure - 200-277-SK01 for Details</div> <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><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FIRE WATER PIPELINE 2
PN2-131 - PN2-157



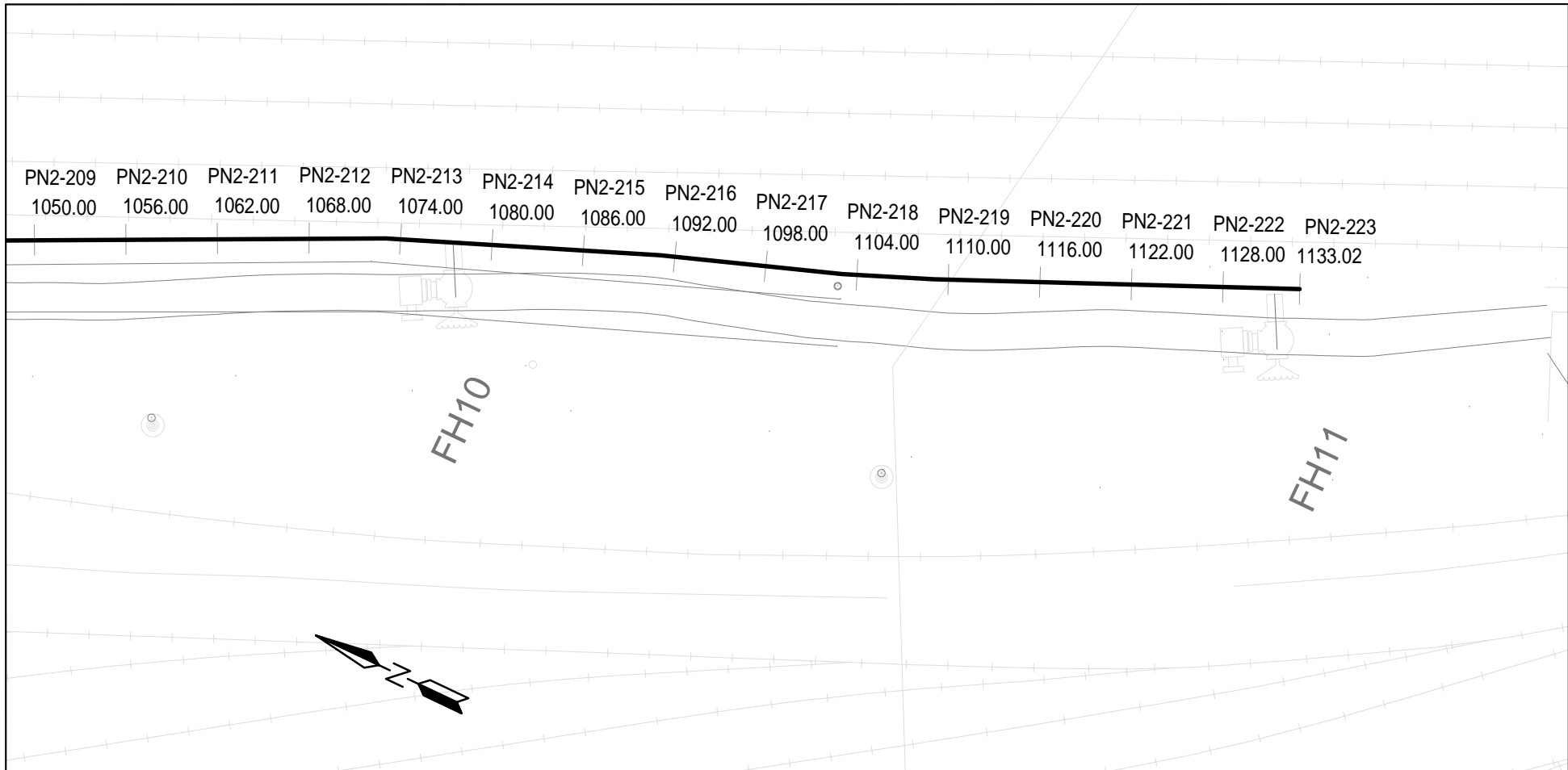
Fire Water Pipeline 2 SCALE : Vert 1:100 Hor 1:500																												
		DATUM : 2.00 msl																										
Peg Distance (m)		1.57	3.76	5.33	7.65/04																							
Ground level (m)		1.56	3.76	5.32	7.61/04																							
Invert Level (m)		1.55	3.76	5.31	7.67/04																							
Plinth Height Above Ground / Pipe Depth Below Ground		0.01	0.00	0.01	0.06	0.04	0.74	5.28	8.21/04																			
Pipe description		250mm dia. HDPE CLASS 16 - FIRE WATER PIPE					200mm dia./STEEL - FIRE WATER PIPE																					
Reference		PN2-157	PN2-158	PN2-159	PN2-160	PN2-161	PN2-162	PN2-163	PN2-164	PN2-165	PN2-166	PN2-167	PN2-168	PN2-169	PN2-170	PN2-171	PN2-172	PN2-173	PN2-174	PN2-175	PN2-176	PN2-177	PN2-178	PN2-179	PN2-180	PN2-181	PN2-182	PN2-183

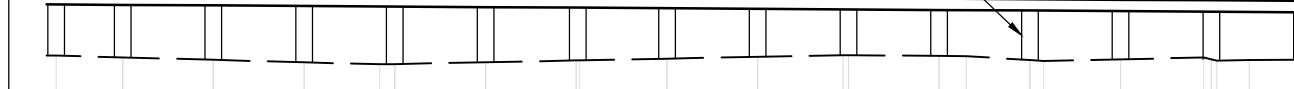
FIRE WATER PIPELINE 2
PN2-157 - PN2-183



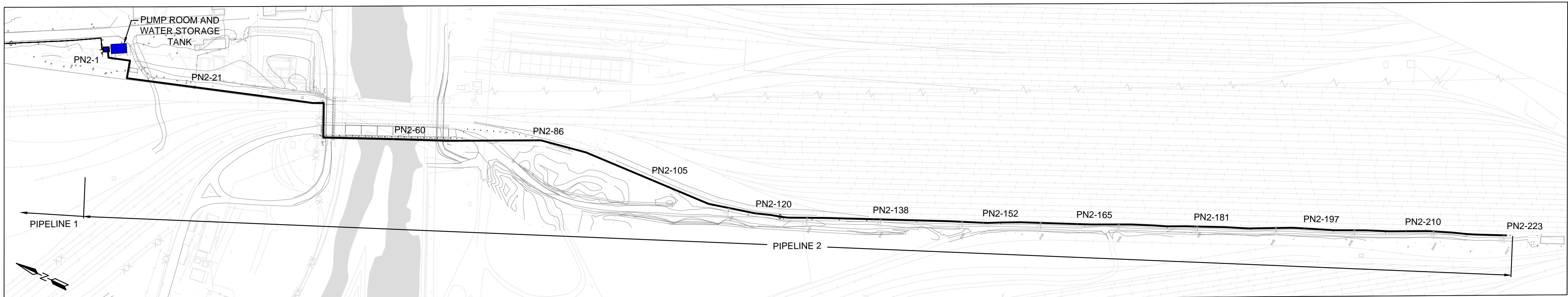
Fire Water Pipeline 2		See Typical Pipe Plinth Support Structure - 200-277-SK01 for Details																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Peg Distance (m)		905.03		911.03		917.03		923.03		929.03		935.03		941.03		947.03		953.03		959.03		965.03		971.03		977.03		983.03		989.03		995.03		1001.03		1007.03		1013.03		1019.03		1025.03		1031.03		1037.03		1043.03		1049.03		1055.03																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Ground level (m)		4.90		4.90		4.90		4.90		4.90		4.90		4.88		4.85		4.82		4.78		4.75		4.73		4.70		4.68		4.61		4.58		4.48		4.42		4.37		4.30		4.25		4.18		4.13		4.06		3.99		3.92		3.85		3.78		3.71		3.64		3.57		3.50		3.43		3.36		3.29		3.22		3.15		3.08		3.01		2.94		2.87		2.80		2.73		2.66		2.59		2.52		2.45		2.38		2.31		2.24		2.17		2.10		2.03		1.96		1.89		1.82		1.75		1.68		1.61		1.54		1.47		1.40		1.33		1.26		1.19		1.12		1.05		0.98		0.91		0.84		0.77		0.70		0.63		0.56		0.49		0.42		0.35		0.28		0.21		0.14		0.07		0.00		-0.07		-0.14		-0.21		-0.28		-0.35		-0.42		-0.49		-0.56		-0.63		-0.70		-0.77		-0.84		-0.91		-0.98		-1.05		-1.12		-1.19		-1.26		-1.33		-1.40		-1.47		-1.54		-1.61		-1.68		-1.75		-1.82		-1.89		-1.96		-2.03		-2.10		-2.17		-2.24		-2.31		-2.38		-2.45		-2.52		-2.59		-2.66		-2.73		-2.80		-2.87		-2.94		-3.01		-3.08		-3.15		-3.22		-3.29		-3.36		-3.43		-3.50		-3.57		-3.64		-3.71		-3.78		-3.85		-3.92		-3.99		-4.06		-4.13		-4.20		-4.27		-4.34		-4.41		-4.48		-4.55		-4.62		-4.69		-4.76		-4.83		-4.90		-4.97		-5.04		-5.11		-5.18		-5.25		-5.32		-5.39		-5.46		-5.53		-5.60		-5.67		-5.74		-5.81		-5.88		-5.95		-6.02		-6.09		-6.16		-6.23		-6.30		-6.37		-6.44		-6.51		-6.58		-6.65		-6.72		-6.79		-6.86		-6.93		-7.00		-7.07		-7.14		-7.21		-7.28		-7.35		-7.42		-7.49		-7.56		-7.63		-7.70		-7.77		-7.84		-7.91		-7.98		-8.05		-8.12		-8.19		-8.26		-8.33		-8.40		-8.47		-8.54		-8.61		-8.68		-8.75		-8.82		-8.89		-8.96		-9.03		-9.10		-9.17		-9.24		-9.31		-9.38		-9.45		-9.52		-9.59		-9.66		-9.73		-9.80		-9.87		-9.94		-10.01		-10.08		-10.15		-10.22		-10.29		-10.36		-10.43		-10.50		-10.57		-10.64		-10.71		-10.78		-10.85		-10.92		-10.99		-11.06		-11.13		-11.20		-11.27		-11.34		-11.41		-11.48		-11.55		-11.62		-11.69		-11.76		-11.83		-11.90		-11.97		-12.04		-12.11		-12.18		-12.25		-12.32		-12.39		-12.46		-12.53		-12.60		-12.67		-12.74		-12.81		-12.88		-12.95		-13.02		-13.09		-13.16		-13.23		-13.30		-13.37		-13.44		-13.51		-13.58		-13.65		-13.72		-13.79		-13.86		-13.93		-14.00		-14.07		-14.14		-14.21		-14.28		-14.35		-14.42		-14.49		-14.56		-14.63		-14.70		-14.77		-14.84		-14.91		-14.98		-15.05		-15.12		-15.19		-15.26		-15.33		-15.40		-15.47		-15.54		-15.61		-15.68		-15.75		-15.82		-15.89		-15.96		-16.03		-16.10		-16.17		-16.24		-16.31		-16.38		-16.45		-16.52		-16.59		-16.66		-16.73		-16.80		-16.87		-16.94		-17.01		-17.08		-17.15		-17.22		-17.29		-17.36		-17.43		-17.50		-17.57		-17.64		-17.71		-17.78		-17.85		-17.92		-17.99		-18.06		-18.13		-18.20		-18.27		-18.34		-18.41		-18.48		-18.55		-18.62		-18.69		-18.76		-18.83		-18.90		-18.97		-19.04		-19.11		-19.18		-19.25		-19.32		-19.39		-19.46		-19.53		-19.60		-19.67		-19.74		-19.81		-19.88		-19.95		-20.02		-20.09		-20.16		-20.23		-20.30		-20.37		-20.44		-20.51		-20.58		-20.65		-20.72		-20.79		-20.86		-20.93		-21.00		-21.07		-21.14		-21.21		-21.28		-21.35		-21.42		-21.49		-21.56		-21.63		-21.70		-21.77		-21.84		-21.91		-21.98		-22.05		-22.12		-22.19		-22.26		-22.33		-22.40		-22.47		-22.54		-22.61		-22.68		-22.75		-22.82		-22.89		-22.96		-23.03		-23.10		-23.17		-23.24		-23.31		-23.38		-23.45		-23.52		-23.59		-23.66		-23.73		-23.80		-23.87		-23.94		-24.01		-24.08		-24.15		-24.22		-24.29		-24.36		-24.43		-24.50		-24.57		-24.64		-24.71		-24.78		-24.85		-24.92		-24.99		-25.06		-25.13		-25.20		-25.27		-25.34		-25.41		-25.48		-25.55		-25.62		-25.69		-25.76		-25.83		-25.90		-25.97		-26.04		-26.11		-26.18		-26.25		-26.32		-26.39		-26.46		-26.53		-26.60		-26.67		-26.74		-26.81		-26.88		-26.95		-27.02		-27.09		-27.16		-27.23		-27.30		-27.37		-27.44		-27.51		-27.58		-27.65		-27.72		-27.79		-27.86		-27.93		-28.00		-28.07		-28.14		-28.21		-28.28		-28.35		-28.42		-28.49		-28.56		-28.63		-28.70		-28.77		-28.84		-28.91		-28.98		-29.05		-29.12		-29.19		-29.26		-29.33		-29.40		-29.47		-29.54		-29.61		-29.68		-29.75		-29.82		-29.89		-29.96		-30.03		-30.10		-30.17		-30.24		-30.31		-30.38		-30.45		-30.52		-30.59		-30.66		-30.73		-30.80		-30.87		-30.94		-31.01		-31.08		-31.15		-31.22		-31.29		-31.36		-31.43		-31.50		-31.57		-31.64		-31.71		-31.78		-31.85		-31.92		-31.99		-32.06		-32.13		-32.20		-32.27		-32.34		-32.41		-32.48		-32.55		-32.62		-32.69		-32.76		-32.83		-32.90		-32.97		-33.04		-33.11		-33.18		-33.25		-33.32		-33.39		-33.46		-33.53		-33.60		-33.67		-33.74		-33.81		-33.88		-33.95		-34.02		-34.09		-34.16		-34.23		-34.30		-34.37		-34.44		-34.51		-34.58		-34.65		-34.72		-34.79		-34.86		-34.93		-35.00		-35.07		-35.14		-35.21		-35.28		-35.35		-35.42		-35.49		-35.56		-35.63		-35.70		-35.77		-35.84		-35.91		-35.98		-36.05		-36.12		-36.19		-36.26		-36.33		-36.40		-36.47		-36.54		-36.61		-36.68		-36.75		-36.82		-36.89		-36.96		-37.03		-37.10		-37.17		-37.24		-37.31		-37.38		-37.45		-37.52		-37.59		-37.66		-37.73		-37.80		-37.87		-37.94		-38.01		-38.08		-38.15		-38.22		-38.29		-38.36		-38.43		-38.50		-38.57		-38.64		-38.71		-38.78		-38.85		-38.92		-38.99		-39.06		-39.13		-39.20		-39.27		-39.34		-39.41		-39.48		-39.55		-39.62		-39.69		-39.76		-39.83		-39.90		-39.97		-40.04		-40.11		-40.18		-40.25		-40.32		-40.39		-40.46		-40.53		-40.60		-40.67		-40.74		-40.81		-40.88		-40.95		-41.02		-41.09		-41.16		-41.23		-41.30		-41.37		-41.44		-41.51		-41.58		-41.65		-41.72		-41.79		-41.86		-41.93		-42.00		-42.07		-42.14		-42.21		-42.28		-42.35		-42.42		-42.49		-42.56		-42.63		-42.70		-42.77		-42.84		-42.91		-42.98		-43.05		-43.12		-43.19		-43.26		-43.33		-43.40		-43.47		-43.54		-43.61		-43.68		-43.75		-43.82		-43.89		-43.96		-44.03		-44.10		-44.17		-44.24		-44.31		-44.38		-44.45		-44.52		-44.59		-44.66		-44.73		-44.80		-44.87		-44.94		-45.01		-45.08		-45.15		-45.22		-45.29		-45.36		-45.43		-45.50		-45.57		-45.64		-45.71		-45.78		-45.85		-45.92		-45.99		-46.06		-46.13		-46.20		-46.27		-46.34		-46.41		-46.48		-46.55		-46.62		-46.69		-46.76		-46.83		-46.90		-46.97		-47.04		-47.11		-47.18		-47.25		-47.32		-47.39		-47.46		-47.53		-47.60		-47.67		-47.74		-47.81		-47.88		-47.95		-48.02		-48.09		-48.16		-48.23		-48.30		-48.37		-48.44		-48.51		-48.58		-48.65		-48.72		-48.79		-48.86		-48.93		-49.00		-49.07		-49.14		-49.21		-49.28		-49.35		-49.42		-49.49		-49.56		-49.63		-49.70		-49.77		-49.84		-49.91		-49.98		-50.05		-50.12		-50.19		-50.26		-50.33		-50.40		-50.47		-50.54		-50.61		-50.68		-50.75		-50.82		-50.89		-50.96		-51.03		-51.10		-51.17		-51.24		-51.31		-51.38		-51.45		-51.52		-51.59		-51.66		-51.73		-51.80		-51.87		-51.94		-52.01		-52.08		-52.15		-52.22		-52.29		-52.36		-52.43		-52.50		-52.57		-52.64		-52.71		-52.78		-52.85		-52.92		-52.99		-53.06		-53.13		-53.20		-53.27		-53.34		-53.41		-53.48		-53.55		-53.62		-53.69		-53.76		-53.83		-53.90		-53.97		-54.04		-54.11		-54.18		-54.25		-54.32		-54.39		-54.46		-54.53		-54

FIRE WATER PIPELINE 2
PN2-183 - PN2-210



Fire Water Pipeline 2		See Typical Pipe Plinth Support Structure - 200-277-SK01 for Details									
SCALE : Vert 1:100 Hor 1:500											
DATUM : 4.00 msl											
Peg Distance (m)											
Ground level (m)											
Invert Level (m)											
Plinth Height Above Ground / Pipe Depth Below Ground											
Pipe description	150mm dia STEEL - FIRE WATER PIPE										
Reference	PN2-210	PN2-211	PN2-212	PN2-213	PN2-214	PN2-215	PN2-216	PN2-217	PN2-218	PN2-219	PN2-220
	PN2-221	PN2-222	PN2-223								

FIRE WATER PIPELINE 2
PN2-210 - PN2-223



KEY PLAN
SCALE : NTS

NOTE:

The following is included in our scope of work:

- > Detailing of the bulk fire water supply pipeline. (Essentially produce long sections.)

The following is excluded from our scope of works hence not included in this drawing:

- > Design and specifications of the actual Fire Water Supply pipe.
- > Route selection of the fire water supply line including fire hydrant positions, spacing of pipe plinth supports and other fire equipment.
- > Calculating the fire water demand and associated fire water storage requirements.
- > Operating parameters (maximum pressure, flowrate + pipe size for worst case scenario's).
- > Obtaining the necessary approvals, clearances, etc. for the proposed new fire line.
- > Specification of the pumps and fire equipment (hydrants, booster, etc.).
- > The development and design of a Hydraulic Model for the water supply line.

Assumptions :

- > It is assumed that the Natural Ground Line along the pipe route will remain unchanged.


Notes:

- > All levels are to be verified on site.
- > This drawing is to be read in conjunction with the Structural Engineers and Fire Engineers Drawings

No.	REFERENCE DRAWINGS

REV	DESCRIPTION	BY	DATE

T1	FOR TENDER	A.B	2019.05.15
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Professional person	Registration
CLIENT	

PROJECT
TRANSNET FREIGHT RAIL
MARSHALLING YARD
BAYHEAD ROAD, DURBAN

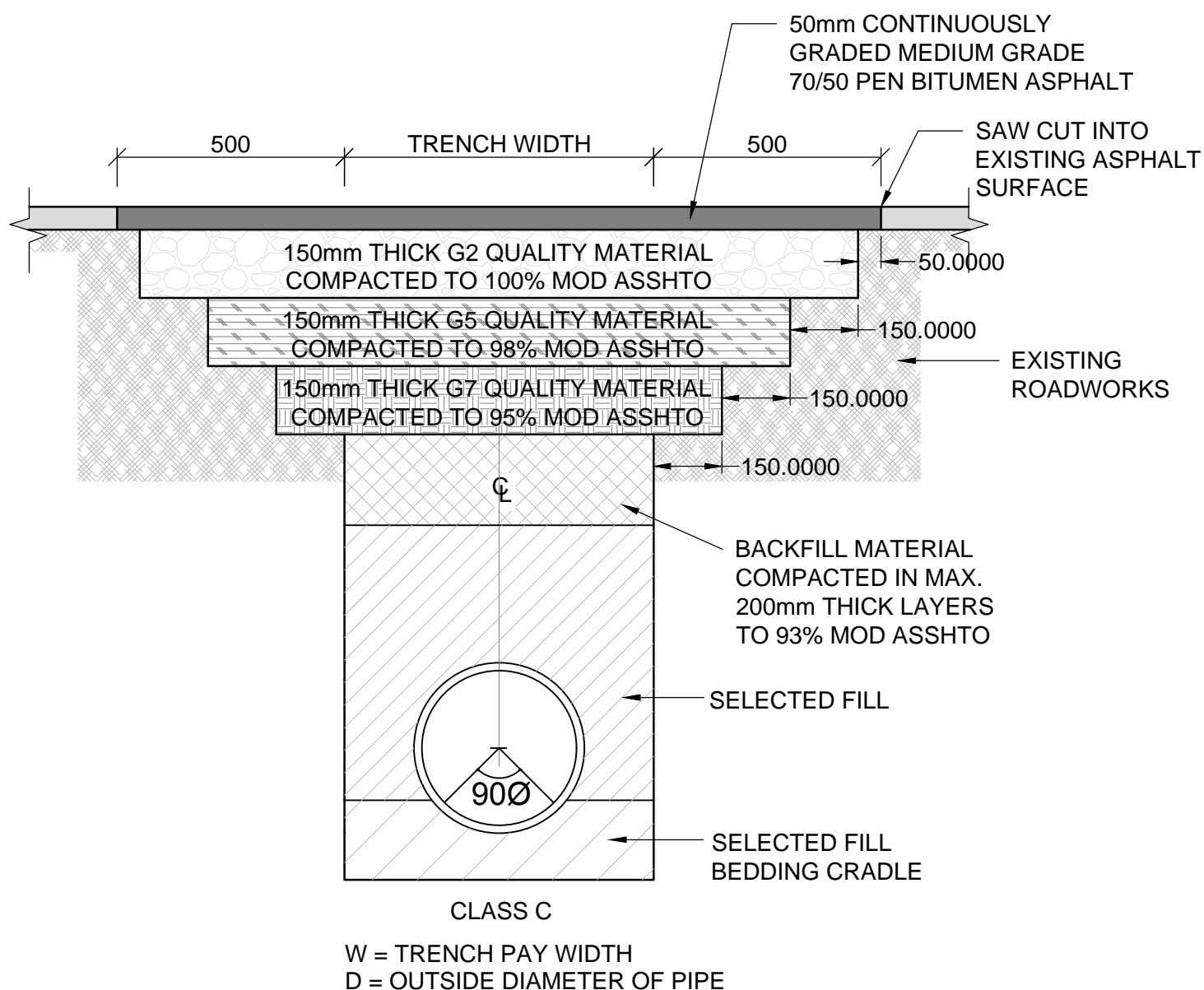
DETAILS
NEW FIRE HYDRANT SYSTEM
FIRE WATER PIPELINE 2
LONG-SECTION - 2 OF 2



DESIGNED	A.B	COPYRIGHT RESERVED	SCALES
DRAWN	A.B	AS SHOWN	
APPROVED	P.N	PL	DATE 2019.01.25

TENDER No.	
DRAWING No.	200-277 / 902
REV	T1

FOR TENDER



REINSTATEMENT DETAILS FOR ROADWAYS

N.T.S

ALLOWANCES

ROAD MARKINGS

WHITE LINES - 100mm WIDE AS PER SABS 1200

YELLOW LINES - 100mm WIDE AS PER SABS 1200

FOR TENDER

Project : TRANSNET FREIGHT RAIL-
MARSHALLING YARDS-
BAYHEAD ROAD, DURBAN

Details :REINSTATEMENT
DETAILS FOR ROADWAYS

Revision

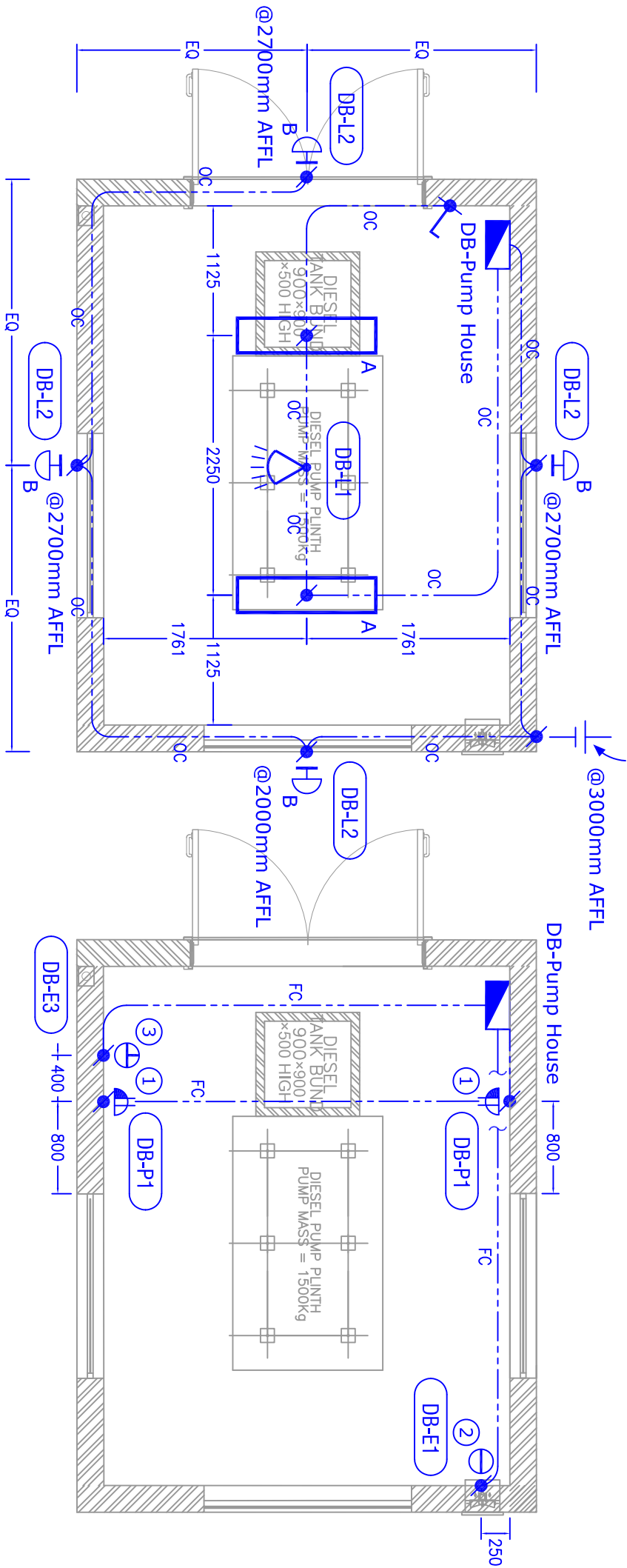
T1

Schedule No

200-277-SK02

DRAWING NOTES

- ① Weather Proof Switch Socket Outlet @500mm AFFL.
- ② 10A Single Phase Isolator @2000mm AFFL.
- ③ 20A 3 Phase Isolator @1000mm AFFL.



	100x100 CONDUIT BOX		TELEPHONE JB.
	100x100 CONDUIT		INTERCOM JB.
	100x100 CONDUIT BOX AT 500mm AFFL.		DATA/COMMS JB.
	100x100 CONDUIT BOX AT 1400mm AFFL.		SECURITY, ETC. JB.
	DB POSITION.		DB-1 BOARD DESIGNATION NUMBER.
	16AMP. SWITCHED SOCKET OUTLET (SSO).		DOUBLE 16AMP. SSO.
	16AMP. SSO ON PEDESTAL.		16A SANS 164-1 and 164-2 COMBINATION SSO.
	3 PHASE SSO.		5A 3 PIN UNSWITCHED SOCKET OUTLET.
	16A CLEAN SSO WITH RED COVER PLATE, SQUARE EARTH PLUG TOP ON PEDESTAL.		INTERMEDIATE LIGHT SWITCH.
	20mm CONDUIT.		SINGLE LEVER ONE WAY LIGHT SWITCH.
	25mm CONDUIT.		2-WAY LIGHT SWITCH.
	32mm CONDUIT.		FLUORESCENT LUMINAIRE.
	50mm CONDUIT.		BULKHEAD/DOWN LIGHTER, ETC.
	SUNDRY.		WALL MOUNTED LUMINAIRE.
	TWIN AND EARTH POWER CABLE.		TWO POLE ISOLATOR.
	OVERHEAD CAST-IN OR LAID ON SURFACE FC FLOOR SLAB CAST-IN.		THREE POLE ISOLATOR.
	POWER SKIRTING.		FOUR POLE ISOLATOR.
	TRUNKING.		TELEPHONE POINT ON PEDESTAL.
	CABLE SLEEVE.		DIRECT OUTSIDE LINE i.e. 3No.
	CABLE TRAY/LADDER.		TELE. POINT (CALL BOX).
	REFERENCE TO QUANTITY i.e. 3No.		DATA/COMMS OUTLET.
	REFERENCE TO A DETAIL.		
	ELECT. NOTE i.e. NOTE 4.		PHOTOCELL.

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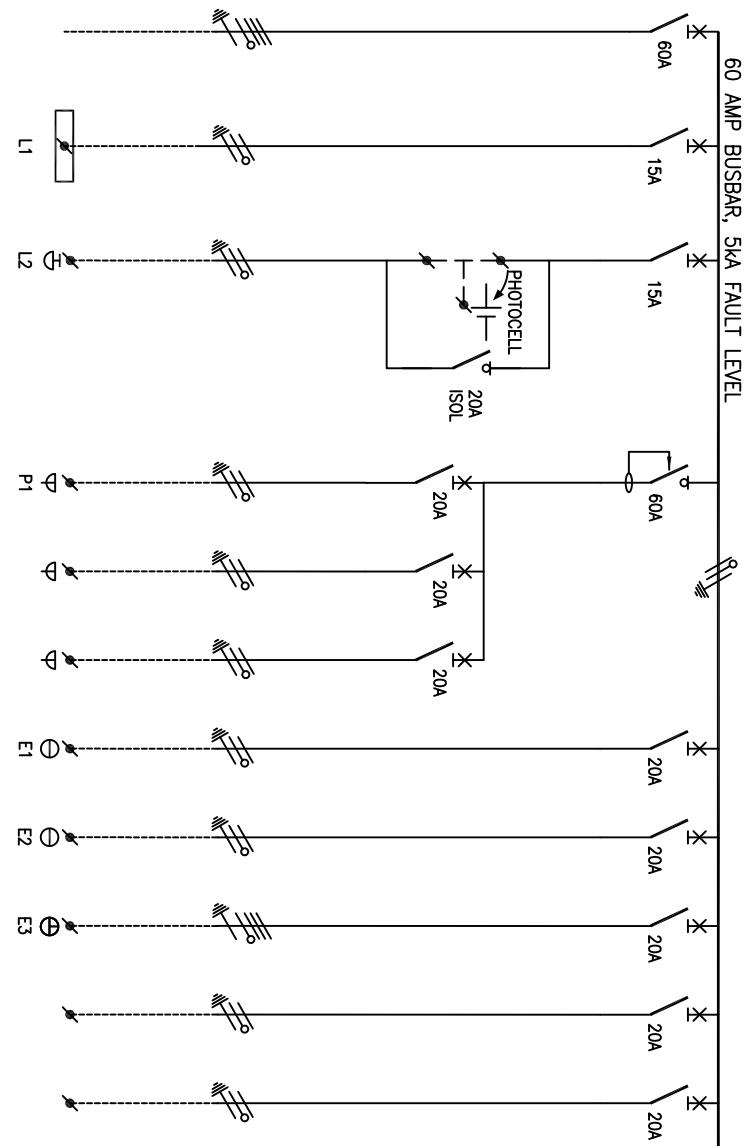
PROJECT:

Transnet Fire Hydrant System

DRAWING TITLE:

Lighting and Small Power Layout
Small Power Layout

			ENGINEER	DRAWN	DATE:	SCALE:	CHKD.
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			PROJECT No.	DRAWING No.	SHEET:	REV.	
			18058	100	1 of 1	0	
0	Original Issue	CP	26/11/18	MK			
REV	DESCRIPTION	BY	DATE	CHKD.	File Name :	Lvr:	



FIELD	CIRCUIT NO. PHASE	DESIGNATION	WIRING	LOAD (AMPS) NO. OF POINTS
		INCOMER	16mm ² 4 CORE Cu PVC SWA PVC ECC CABLE	
		LIGHTING	3 x 2.5mm ² PVC INSULATED Cu WIRE	
		EXTERNAL LIGHTING	3 x 2.5mm ² PVC INSULATED Cu WIRE	
		SSO	3 x 2.5mm ² PVC INSULATED Cu WIRE	
		SPARE		
		SPARE		
		EXTRACTOR FAN	3 x 4mm ² PVC INSULATED Cu WIRE	
		DIESEL & ANNUNCIATOR	3 x 4mm ² PVC INSULATED Cu WIRE	
		JOCKEY PUMP	3 x 4mm ² PVC INSULATED Cu WIRE	
		SPARE		
		SPARE		

REV	DESCRIPTION	BY	DATE	CHKD.	FILE Name :	Lyr :
0	Original Issue	CP	26/11/18	MK	PROJECT No. 18058	DRAWING No. 400
						SHEET: 1 of 1
						REV. A

ENGINEER	DRAWN	DATE:	SCALE:	CHKD.
M.Kambaran	CP	12/09/18	NTS	MK
			PAPER SIZE: A3	

Transnet Fire Hydrant System

Electrical Installation

DB-Pump House

Single Line Diagram

IBU A Consulting Engineers

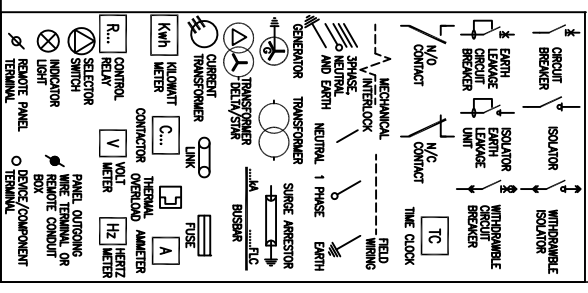
POWERING DEVELOPMENT



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- GENERAL NOTES:**
- DROPPERS/TAIS TO BE RATED FOR I^2t LET THROUGH HARNESS WIRING TO BE DERATED.
 - TURNAL BRACES NOT TO BE USED ABOVE 100A.
 - COPPER BUSBARS TO BE CONTINUOUS RATED.
 - ENCLOSURE TO BE IP54.
 - PHASING R.A.M.B. TOP TO BOTTOM, LEFT TO RIGHT, BACK TO FRONT.
 - INTERNAL TEMPERATURE TO BE LIMITED TO 5° ABOVE ABOVE AMBIENT – MAX. 40°C.
 - CABLE ENTRIES AND GENERAL ARRANGEMENT TO SUIT INSTALLATION CONSTRAINTS.
- ADDITIONAL NOTES:**
- ALL CIRCUIT BREAKERS, ISOLATORS AND EARTH LEAKAGE TO BE TYPE 2 CURVE AND EQUIPMENT TO BE SCHNEIDER/COB.
 - EARTH LEAKAGE TO BE 60A CIRCUIT BREAKER WITH INTEGRAL 30mA.
 - SURFACE MOUNTED DB WITH ARCHITRAVE
 - DB COLOUR TO BE WHITE
 - DB TO BE TOP FOR TRUNKING AND BOTTOM FOR CABLE.
 - BUSBAR TO BE SHROUDED
 - EARTH & NEUTRAL BAR TO BE EASY ACCESSIBLE.
 - SUFFICIENT SPACE REQUIRED FOR SAFE ACCESS FOR REMOVING.
 - ACCESS ZONE REQUIRED THROUGH SHROUD
 - ALL 3 PHASES AND SINGLE PHASE OUTGOING CIRCUIT BREAKERS TO BE LABELLED WITH DESCRIPTION OF SERVICES AND CIRCUIT NOS. AS PER DRAWING.




Type		Description	Installation	Lamps		Location		Comments
				Type	Colour			
A		2x49W T5 Linear fluorescent, vapour proof. Electronic control gear, complete with 3m cordset and 5A plugtop.	Surface Mounted	2x49W T5	840	Plant Room		Supplied by Beka or equal and approved
B		20W LED Round Bulkhead Light Fitting With Aluminum Base.	Surface Mounted	20W LED	4000K	External		Supplied by Beka or equal and approved

NOTES

Luminaires are specified as an indication of form and quality. Equal alternatives will be considered.
Samples of all luminaires are to be presented for approval before orders are placed.
Lamps to be Osram ,Phillips or equal and approved. Control gear to be Osram, Phillips, Tridonic, V&S or equal and approved . Full details to be submitted with sample.
All luminaires and lamps to be marked with manufacturers details, model numbers and production date/batch number.
Quantities are to be confirmed by contractor

					ENGINEER:	DRAWN:	DATE:	CHKD	P SIZE	Transnet Fire Hydrant System Luminaire Schedule
					MK	MK	26/11/18	MK	A4	
					PROJ No.:		DWG No	REV	SCALE	
0	Original Issue	MK	26/11/18	MK	18058		600	0	n.t.s	
REV	DESCRIPTION	BY	DATE	CHKD	FILE NAME:			SHEET: 1 of 1		



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TRANSNET GROUP CAPITAL
ENVIRONMENT & SUSTAINABILITY

**CONSTRUCTION ENVIRONMENTAL
MANAGEMENT PLAN (CEMP)**

ENV-STD-001 Rev04

Document Control

This document will be managed and controlled in terms of the Transnet Document, Data and Records Management Procedure.

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Name	Designation	Signature	Date approved
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1 Purpose

This document describes the main environmental management requirements that the Contractor must comply with during the construction phase to ensure that the environment is considered, negative impacts avoided or minimised, and positive impacts enhanced. This document is critical to the principal Contractor and the Contractor's Environmental Officer (EO) as well as any sub-contractors performing work on the principal Contractor's behalf.

The purpose of this Document is to:

- Describe how project environmental risks will be identified and managed during the construction phase;
- Detail the roles and responsibilities of all parties with respect to environmental management during construction;
- Outline the organisational structure for effective implementation of the CEMP;
- Assist the Contractor in understanding the requirements of complying with the CEMP and any relevant specifications; and
- Provide a set of standards for environmental management during the construction phase.

2 Scope

This standard applies to Contractors that work on site under the control of Transnet Group Capital (TGC).

3 Abbreviations and Definitions

3.1 Abbreviations

Abbreviation	Meaning
CEMP	Construction Environmental Management Plan
CV	Curriculum Vitae
DEA	Department of Environmental Affairs
EA	Environmental Authorisation
ECO	Environmental Control Officer
EO	Environmental Officer

Abbreviation	Meaning
EGF	Environmental Governance Framework
EMP	Environmental Management Plan
EMPr	Environmental Management Programme
NEMA	National Environmental Management Act 107 of 1998 (as amended)
NCR	Non-conformance Report
PES	Project Environmental Specification
SES	Standard Environmental Specification
SHEQ	Safety, Health, Environment and Quality
TGC	Transnet Group Capital
CM	Construction Manager
PEM	Project Environmental Manager
PM	Project Manager

3.2 Definitions

Compliance	The action or fact of complying with legislation or regulations.
Conformance	The action or fact of conforming to this standard and other internal policies, procedures, guidelines and best practice.
Construction Manager	Works together with the Project Manager and the TGC EO to ensure that construction proceeds in accordance with the relevant specifications and agreed schedule.
Contractor	The Principal Contractor as engaged by Transnet Group Capital for infrastructure construction operations, including all sub-contractors appointed by the main contractor of his own volition for the execution of parts of the construction operations; and any other contractor from time to time engaged by Transnet Group Capital directly in connection with any part of the construction operations which is not a nominated sub-contractor to the Principal Contractor.

Contractor's Environmental Officer	Contractor's Environmental Officer responsible for ensuring compliance with the CEMP.
Corrective Action	It is generally a reactive process used to address problems after they have occurred. Corrective action may be triggered by a variety of events, e.g. Non-conformance to documented procedures and work instructions, non-conformances raised through internal audits, unacceptable monitoring and measurement results, internal & external SHEQ complaints, etc.
Emergency	Sudden unforeseen event needing immediate or prompt action.
Environment	Surroundings in which the Contractor operates, including air, water, land, natural resources, flora, fauna, humans and their interrelations.
Environmental Aspect	Element of a Contractor's activities, products or services that can interact with the environment and cause an environmental impact (e.g. dust, noise etc.).
Environmental Authorisation	Environmental Authorisation is the authorisation granted by a competent authority of a listed activity or specified activity in terms of National Environmental Management Act 107 of 1998 (as amended).
Environmental Impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from a Contractor's activities, products or services.
Environmental Management Plan	A plan generated by the Contractor describing the relevant roles and responsibilities and how potential environmental risks will be assessed and managed including the monitoring and recording thereof.

Environmental Management Programme	A programme that has been approved by the Competent Authority in terms of NEMA, 107 of 1998 stipulating information on any proposed management, mitigation, protection or remedial measures that will be undertaken to address the environmental impacts that have been identified
Environmental Risk	The product of the likelihood and severity of an unforeseen occurrence/incident/aspect and the impact it would have, if realised, on the environment
Incident/Occurrence	An undesired event occurring at work that results in physical harm to a person or death, or damage to the environment, plant and/or equipment, and/or loss of production.
Method Statement	A document that describes how the Contractor will implement environmental management measures associated with a particular environmental aspect during construction.
Non-conformance	An action or situation that does not conform to Transnet/TGC's SHEQ standards, procedures or legislative requirement(s) and that can be, or lead to, an unacceptable SHEQ incident.
Non-compliance	Contravention to environmental legislative requirements.
Project Environmental Manager	Works together with the Project Manager and Construction Manager to ensure that the requirements of the CEMP/SES and applicable PES are met.
Project Manager	A person/s, as appointed by Transnet, responsible for the overall management and implementation of a project.

4 Overview of the CEMP

It is the stated goal of TGC to implement sustainable environmental management practices within the organisation. This will apply to the planning, design, construction, operation, restoration, reuse and decommissioning activities related to all infrastructure development, upgrade and maintenance. The CEMP is the tool used to ensure this goal is achieved during the construction and commissioning phases. Some decommissioning may occur during site clearing in brownfield sites and this CEMP will also apply to those activities.

The CEMP has been developed in line with the requirements of all relevant South African Environmental Legislation and Standards of Best Practice.

The CEMP and associated documents or specifications as well as the EA will be included in the Tender Documents issued to the prospective Contractors. The Contractors will incorporate all requirements set out in the specifications in their submissions to TGC.

There are two types of environmental specifications:

- **Standard Environmental Specification (SES)** describes the minimum standards for environmental management for a range of environmental aspects associated with all construction projects with which the Contractor must comply.
- **Project Environmental Specification (PES)** describes standards specific to a particular project. Variations and additions to the SES are set out in this PES. These would include the EA issued to the project or elements generally drawn from the EA or permits for that project or from specific requirements set by TGC Clients. The PES may also require a more stringent standard to that described in the SES if required by the EA or a particular industry code to which Transnet subscribes including any environmental constraints at a construction site. The PES need not be a separate document; however it can be in a format of an appendix/addendum making reference to environmental authorisation(s), permit(s) or licence(s) applicable to the project. In cases where the project does not trigger any of the NEMA listed activities or any permit(s)/licence(s), the PES may be compiled to prescribe additional environmental management measures over and above the measures stipulated on the SES.

The specifications are configured as performance specifications to ensure that TGC and any entities that enter into formal agreements with TGC achieve the required level of environmental performance.

NOTE: No advice, approval of method statements or any other form of communication from TGC will be construed as an acceptance by TGC of any obligation that indemnifies the Contractor from achieving any required level of performance. Further, there is no acceptance of liability by TGC which may result from the Contractor failing to comply with the specifications, i.e. the Contractor remains responsible for achieving the required performance levels.

5 Implementation of the CEMP

5.1 Roles and Responsibilities

5.1.1 TGC Project Environmental Manager (PEM)

The TGC PEM will be responsible for ensuring that the CEMP and associated specifications or requirements are complied with during construction. The TGC PEM will report functionally to the TGC Senior Manager: Environment and Sustainability, and relevant Project Manager.

Specific tasks during the construction stage will include:

- Liaison with the relevant authorities;
- Preparation of the PES;
- Tender evaluation, development of environmental criteria and adjudication thereof;
- Review all reports from the Environmental Officer/Specialist, including sign off on Method Statements and Monthly Audit reports;
- Conduct any environmental incident enquiries;
- Identify, with support from the TGC Construction Manager; the need for corrective or remedial measures with regard to proposed works;
- Ensure induction material includes project appropriate environmental issues;
- Approve training programmes and other awareness initiatives;
- Coordinate or facilitate internal environmental audits;
- Sign-off on audit reports prepared by ECOs; and
- Prepare environmental monitoring protocols (if monitoring to be done by Environmental Officer and not by an outside consultant).

The TGC PEM may delegate part or all of these responsibilities to the TGC Environmental Officer, based on the merits of the particular project at hand.

5.1.2 TGC Construction Manager

The TGC Construction Manager has overall responsibility for environmental management on site which includes the implementation of the CEMP, SES and PES and reports to the Project Manager. The TGC Construction Manager is supported by the TGC Environmental Officer/Specialist.

The specific environmental tasks for TGC the Construction Manager during the construction phase will include:

- Reviewing the monthly reports compiled by the TGC Environmental Officer/Specialist;
- Communicating directly with the Contractors on environmental issues observed on site; and
- Issuing non-conformance notifications to Contractors in consultation with the TGC Environmental Officer/Specialist

5.1.3 TGC Environmental Officer

The TGC Environmental Officer reports functionally to the TGC Construction Manager and TGC PEM and is responsible for conducting the tasks required to ensure that the CEMP, SES and PES are implemented on the construction site.

The TGC Environmental Officer will conduct the following tasks:

- Ensure that environmental issues receive adequate attention in the site induction training;
- Prepare Risk Reports;
- Prepare and conduct environmental awareness training, as and when required (e.g. posters, tool box talks, signage);
- Generate an inspection checklist prior to the project commencement for sign off by the TGC PEM;
- Review and approve site layout plan;
- Conduct monthly observation & inspection of all work places based on the approved inspection checklist;
- Monitor the Contractor's compliance with the CEMP, SES and PES;

- Develop an Audit Finding and Close out Register that documents all audit findings, close out actions and the time frame allowed for in order to close the finding/s;
- Ensure that all environmental monitoring programmes (sampling, measuring, recording etc. when specified) are carried out according to protocols and schedules;
- Measurement of completed work (e.g. areas top soiled, re-vegetated, stabilised etc.);
- Attendance at scheduled SHE meetings, as and when required, and project coordination meetings;
- Ensure that site documentation (permits, EA, EMPr, CEMP, method statements, audit reports, waste disposal slips etc.) related to environmental management is maintained on the relevant Document Control System;
- Inspect and report on environmental incidents and check corrective action;
- Keep a photographic record of all environmental incidents;
- Completion of Flash Reports for all Level 1 and 2 environmental incidents;
- Implementation of environmental-related actions arising from the minutes of scheduled meetings;
- Management of complaints register;
- Review and Sign off Method Statements prepared by Contractor's EO, as delegated by the TGC PEM;
- Audit conformance to Environmental Method Statements;
- Collate information received, including monitoring results into a monthly report that is supported with photographic records to the TGC Construction Manager showing progress against targets; and
- Report environmental performance of the project on a monthly basis through relevant governance channels.

The key deliverables will include the compilation of:

- Project Start Up Checklist
- Monthly Inspection Checklist
- Monthly Environmental Audit Report
- Monitoring Results, where required
- Flash reports
- Incident investigation Reports
- Environmental Incident Register
- Environmental Non-Conformance Register & Reports
- Complaints Register

- Method Statements Register
- Site Close Out Inspection
- Site Close-Out Reports

5.1.4 Environmental Control Officer

The Environmental Control Officer (ECO) is an independent person legally appointed to monitor compliance of construction related activities with the conditions of the Environmental Authorisation. The ECO fulfils an autonomous role and submits audit reports to the Competent Authority at intervals specified in the EA.

The ECO will conduct the following tasks:

- Monitor compliance to the conditions of the EA, EMPr and can include permits and licenses applicable to a project;
- Attend project meetings as and when required;
- Conduct audits at a frequency stipulated on the EA/EMPr; and
- Compile audit reports and submits them to relevant authorities.

5.1.5 Contractor's Environmental Officer

The Contractor will appoint an Environmental Officer before commencement of any work on site whose role is to ensure implementation of the requirements of the CEMP, SES and PES where applicable. The Contractor will submit the name and CV of the Environmental Officer as well as an Environmental Management Plan detailing roles and responsibilities with their tender submission. The Environmental Officer should have relevant environmental qualifications and experience required for the project. The level of qualifications and experience will depend on the complexity of the project and the sensitivity of the site. This will be for TGC's approval and no work can commence on site if this has not been done.

The Contractor's Environmental Plan will include, but not be limited to:

- Contractor's Environmental Organogram;
- A description of environmental management responsibilities of the Contractor's Project Manager, Contractor's Site Manager and the Contractor's Environmental Officer;
- A signed and dated organisational Environmental Policy;
- Environmental Method Statements; and

- Project-specific Environmental Management Plan;

The Contractor's Environmental Officer will liaise with the TGC Environmental Officer on site. It will be the responsibility of the Contractor's Environmental Officer to ensure that all work is conducted according to the approved Environmental Method Statements and that the roles and responsibilities as set out in this document are fulfilled. The Contractor Environmental Officer's tasks will include:

- Daily and weekly inspections of the work area(s) as per schedule or authorised through written instruction by TGC PEM or Environmental Officer. The Contractor is referred to Section 7 for an example of the items that will need to be inspected and which items will be audited by the TGC Environmental Officer;
- Prepare project-specific activity/aspect based Environmental Method Statements;
- Identify local, provincial and national environmental legislation that applies to the Contractor's activities;
- Ensure conformance/compliance to the CEMP, SES, PES, licenses and permits and approved Environmental Method Statements;
- Conduct ongoing Environmental Awareness Training of the Contractor's site personnel;
- Reporting, investigating and recording of any environmental incidents caused by the Contractor or due to the Contractor's activities, including their sub-contractors;
- Close out of environmental incidents;
- Attendance at all SHE meetings and induction programmes, and toolbox talks where required
- Monitor Waste Management;
- Monitor Water and Energy use;
- Ensure that environmental signage and barriers are correctly placed;
- Taking required corrective action within specified time frame and close out of non-conformances;
- Maintain site documentation related to environmental management (permits, CEMP, method statements, EA, reports, audits, monitoring results, receipts for waste removal etc.). Documentation to be maintained on the relevant site Document Control System;
- The compilation of the Project Environmental Management File
- Hazardous Substances Register; and
- Ensure the environmental file content is scanned monthly or in intervals agreed to by the TGC EO, as per the TGC index and submitted to the TGC document control monthly.

The Contractor's Environmental Officer will be expected to submit daily/weekly checklists as agreed by the TGC Environmental Officer to the TGC Environmental Officer.

When the Contractor's Environmental Officer is replaced after the person has been approved by TGC, the Contractor will submit a CV of a replacement Environmental Officer who has at least the same level of qualification and experience of the previous approved person for approval by the TGC Environmental Officer and TGC Construction Manager. No work can proceed until the replacement Environmental Officer has been approved.

5.1.6 The Contractor

The Contractor shall comply with the requirements of the CEMP and abide by the TGC Project Manager's and TGC Environmental Officer/Specialist's instructions regarding the implementation of the CEMP.

The Declaration of Understanding, as detailed in **Section 6**, must be signed during tender stage, and a signed copy must be submitted to the TGC Environmental Officer prior to the start of construction.

Section 6 details some of the main actions required from the Contractor at various stages during the contract. The TGC Environmental Officer will monitor that all of these actions are undertaken in accordance with the CEMP.

It must be noted, however, that **Section 6** does not list all the requirements of the CEMP, but rather serves as a guide as to where definite actions are required before certain activities can commence. It should be read in conjunction with the SES, and the PES.

Section 7 contains aspects that will be subject to regular inspections and audits by the various parties.

5.2 Organisational structure

The organisational structure identifies and defines the responsibilities and authority of the various entities involved in the project. All instructions and official communications regarding environmental matters will follow the organisational structure shown in **Figure 1**.

All instructions that relate to the CEMP will be given to the Contractor via the TGC Project Manager. In an emergency situation, however, the TGC Environmental Officer may give an instruction directly to the Contractor. Environmental Management of the site will be an item on the agenda of the monthly site meetings, and the TGC Environmental Officer will attend these meetings on request by the Contractor. If at any time the TGC Project Manager is uncertain in any way with respect to an environmentally related issue or specification in the CEMP, he will consult with the TGC PEM.

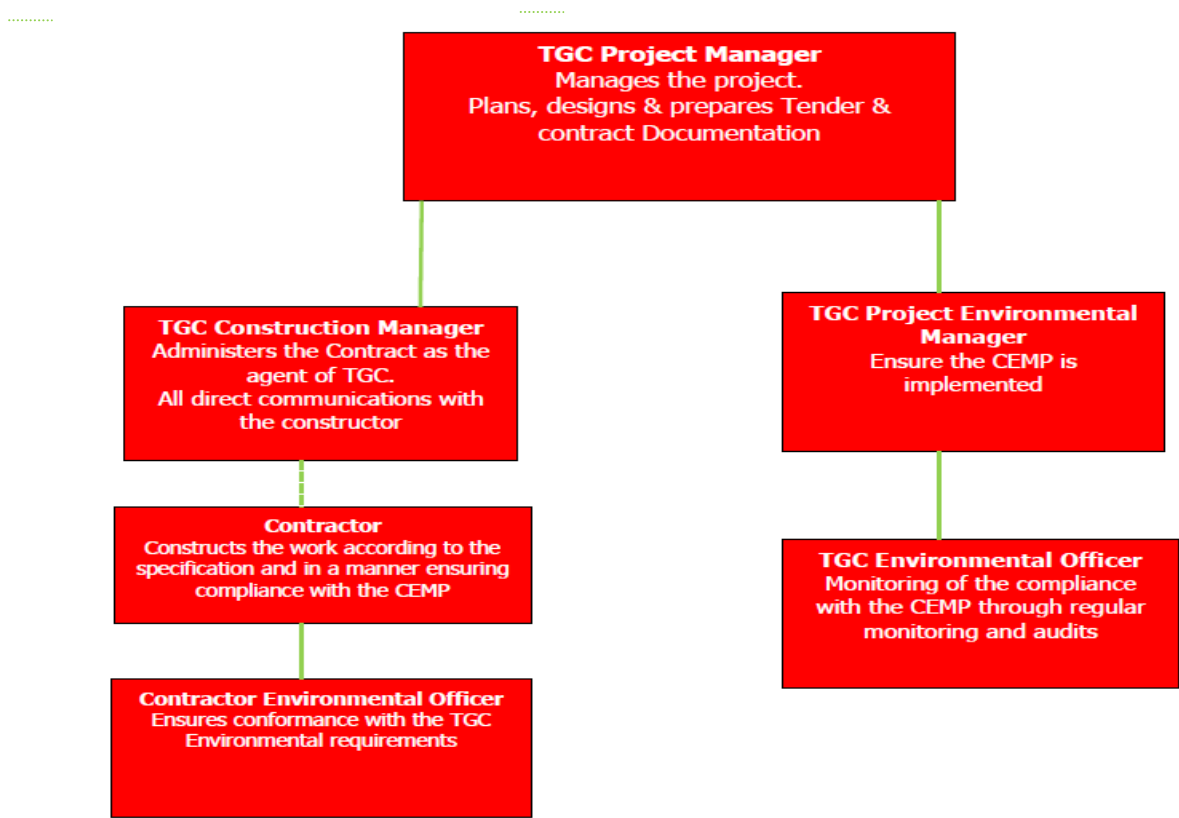


Figure 1: Typical TGC Organogram for Construction

5.3 Availability of the CEMP

Copies of the relevant CEMP documentation (SES, & PES, and any Contractor's Guideline Documents) must be available at the site offices of the Contractor and/or on site.

5.4 Project Environmental Management Plan

The Contractor is required to submit an Environmental Management Plan (EMP) with his Tender Documents. The EMP should describe the relevant roles and responsibilities and how potential environmental risks will be assessed and managed including the monitoring and recording thereof. These will be used to establish a Contractor's competency and experience of preventing and managing potential environmental impacts.

5.5 Environmental Method Statements

Environmental Method Statements are written submissions by the Contractor to the TGC Construction Manager and Environmental Officer describing:

- The proposed activity, setting out the plant, equipment, materials, labour and method the Contractor proposes using to carry out an activity;
- The environmental management of site conditions – waste management, housekeeping, site establishment;
- Transportation of the equipment to and from site;
- How the equipment/ material will be moved while on site;
- How and where material will be stored;
- The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- Timing and location of activities;
- Description of potential positive and negative environmental impacts and how they will be managed;
- Conformance/ non-conformance with the Standard Environmental Specification and any other statutory and best practice standards;
- Monitoring and reporting requirements;
- Records Management; and
- Any other information deemed necessary by the TGC Construction Manager and TGC EO as well as ECO where applicable.

The Contractor will compile Activity/Aspect-based Environmental Method Statements for all activities proposed. The Environmental Method Statements will enable the potential positive and negative environmental impacts associated with the proposed construction activity to be identified and mitigation measures put in place. All method statements must be signed by both the Contractor and TGC CM and EO, with the addition of the ECO on authorised projects, thereby indicating that the works will be carried out according to the methodology described therein.

Activities may only commence once the Environmental Method Statements have been approved by the TGC PEM, Construction Manager and/or ECO. In some instances local authorities may also need to approve the method statements. This will be highlighted in the Project Environmental Specification, when applicable.

All changes to the original Method Statements must be approved by the TGC PEM/EO and/or TGC Construction Manager prior to implementation. The Contractor, TGC CM, EO and/or ECO will also be required to re-sign the amended Environmental Method Statement.

To enable timely approvals, the environmental method statements will be submitted to the TGC Construction Manager and TGC Environmental Officer for review **two (2) weeks** prior to the intended date of commencement of the activity, or as directed by the TGC Project Manager/Construction Manager.

Where changes to the work methodology are proposed, Environmental Method Statements must be amended accordingly and signed off by all relevant parties as indicated above. These Environmental Method Statements MUST contain sufficient information and detail to enable the TGC Construction Manager and/or Environmental Officer to apply their minds to the potential impacts of the works on the environment. The Contractor will also need to thoroughly understand what is required of him/her in order to undertake the works.

The initial Environmental Method Statements required for submission and approval are listed in the environmental specifications. Others may be requested by the TGC Construction Manager and/or TGC Environmental Officer/ECO during the Contract.

An explanatory example of an environmental method statement on the pro forma method statement sheet to be completed has been included as **Annexure B**.

5.6 Environmental Incidents

Environmental incidents are classified under four levels: 1, 2, 3 and 4. For the purpose of this document; they are defined as follows:

5.6.1 Level 1 Environmental Incident

An incident or sequel of incidents, whether immediate or delayed, that results or has the potential to result in:

- A significant impact on the physical or biological environment (air, ground, water and habitat) with extensive or long term impairment of ecosystem function or surface and ground water resources.
- An inconvenience/ disturbance/disruption/annoyance (including odour, dust, noise, traffic problem, loss of water supply) of a long duration or with a long term impact on interested and affected parties. A release of material (gas, liquid, solid) or energy that will cause chronic illness, permanent lost time injury, fatality or extensive property damage experienced by interested and affected parties.
- Irreparable damage to highly valued structures and sacred locations.
- Public or national / international media outcry.
- Instances where inspections undertaken by or for the regulator to check legal compliance, were found to be outside the permitted limits and have resulted in prosecution.

Where the environmental impact of a Level 2 environmental incident is still present 120 days after occurrence, the incident will be reclassified as a Level 1 incident.

NOTE: A Level 1 environmental incident usually should be reported to the authorities, the incident usually results in significant pollution and may entail risk of public danger. Level 1 environmental incidents usually cause an irreversible impact even with the involvement of long-term external intervention i.e. expertise, best available technology, remedial actions, excessive financial cost etc.

5.6.2 Level 2 Environmental Incident

An incident or sequel of incidents, whether immediate or delayed, that results or has the potential to result in:

- A moderate impact on the physical or biological environment (air, ground, water or habitat) with limited impairment of ecosystem function and/or surface and ground water resources.
- An inconvenience disturbance/ disruption/annoyance (including odour, dust, noise, traffic problems, loss of water supply) of moderate or with medium effect on interested and affected parties.
- A release of material (gas, liquid, solid) or energy that causes severe but reversible illness, non-lost time injury or moderate property damage experienced by interested and affected parties.
- Damage to rare structures of cultural significance or significant infringement of cultural values / sacred locations.
- Attention from local media or widespread complaints.
- Instances where inspections undertaken by or for the regulator to check legal compliance have been outside the permitted limits and an official pre-directive or directive was issued.
- Inability of Contractors to close out corrective actions in an NCR without proper reason.

NOTE: A Level 2 environmental incident may be reported to the authorities, can result in significant pollution or may entail risk of public danger. The impact of Level 2 environmental incidents should be reversible within a short to medium term with or without intervention.

5.6.3 Level 3 Environmental Incident

An incident or sequel of incidents, whether immediate or delayed, that results or has the potential to result in:

- A minor impact on the physical or biological environment (air, ground, water or habitat), with no significant or long-term impairment to the ecosystem function or surface/ground water resources.
- An inconvenience / disturbance / disruption / annoyance (including odour, dust, noise, traffic problems, loss of water supply) of short duration and with no long-term effect on the employees and the community.
- A release of material (gas, liquid, solid) or energy that has the potential to cause illness, or that causes short term discomfort or reversible health effect to interested and affected parties.
- Isolated complaints by interested and affected parties.

- Instances where inspections undertaken taken by or for the regulator to check for legal compliance, have been outside the permitted limits and a non-compliance notice was issued.

NOTE: A Level 3 environmental incident is not reportable to authorities, should not result in pollution and may not have a risk of public danger. The impact of Level 3 environmental incidents should be insignificant immediately after occurrence and/or once-off intervention on the day of occurrence.

5.6.4 Level 4 Environmental Incident

A minor incident with lesser significance that did not necessarily result in damage or injury but that had the potential to cause damage to the environment, including:

- Could result in service disruption with a lesser significance;
- Did not necessarily result in damage; and/or
- Had the potential, under different circumstances, to cause major damage to the environment

In the event of an environmental incident, the Contractor will follow the following procedure:

- | | |
|---------|--|
| Step 1: | Immediately take all reasonable measures to contain and minimise the effects of the incident, including its effects on the environment and any risks posed by the incident to the health, safety and property of persons; |
| Step 2: | Telephonically notify the TGC Environmental Officer and follow up in writing within <i>one(1) working day</i> including the following information: the nature of the incident and initial classification; substances involved with quantities; initial measures taken to minimise impacts; causes of the incident; measures taken and proposed to avoid the reoccurrence of the incident; |
| Step 3: | Step 3: Report the incident on all relevant documents and systems - TGC Environmental Incident Register; TGC Environmental Incident Report and TGC Incident Flash Report; |
| Step 4: | Undertake clean-up procedures; |
| Step 5: | Remedy the effects of the incident; and |

Step 6: Assess the immediate and long-term effects of the incident on the environment and on public health;

In the event of any Level 1 or 2 environmental incidents, the Contractor's Environmental Officer must complete a TGC Incident Flash Report (FAC-FAT-0005); TGC Environmental Incident Report and document the incident on the TGC Environmental Incident Register.

In the event of any Level 1 or 2 environmental incidents, the TGC Environmental Officer will:

- Ensure that an Incident Flash Report (FAC-FAT-0005) has been compiled and that it contains the necessary information; and
- Ensure that Contractor has complied with relevant Transnet protocols on Occurrence Management.

In the event of any Level 3 environmental incident, the Contractor's Environmental Officer must complete a TGC Environmental Incident Report and document the incident on the TGC Environmental Incident Register.

In the event of any Level 4 environmental incidents, the Contractor's Environmental Officer must document the incident on the TGC Environmental Incident Register and/or the Contractor's Incident Register.

In the event of an incident (regardless of level) occurring, the TGC EO shall ensure that the problem statement on the report is clear, the actual or potential consequences are noted, and priority mitigation actions and responsibility for actions are indicated where necessary.

5.7 Public Complaints

Any public complaint received shall be dealt with as depicted in Figure 2.

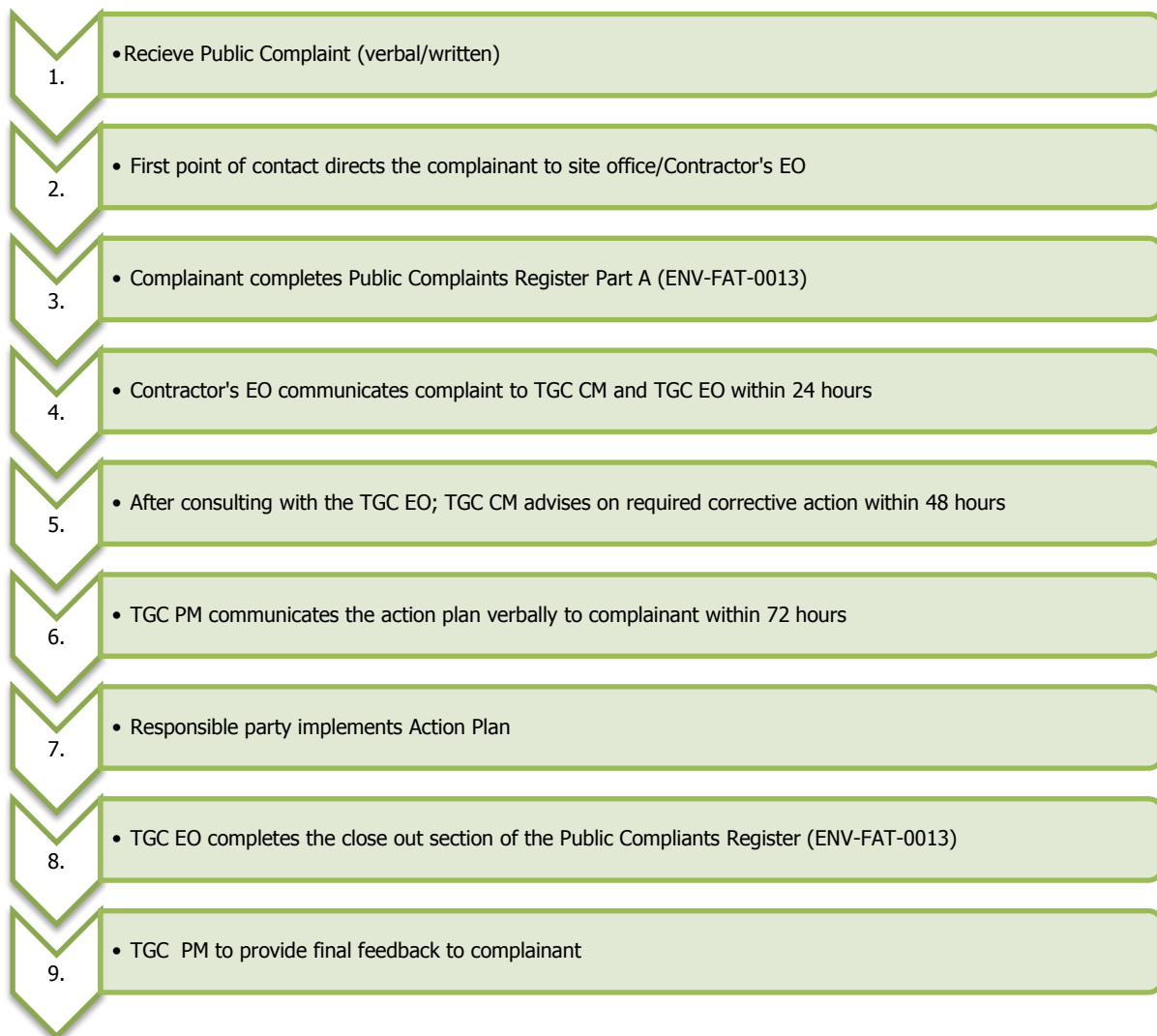


Figure 2: Public Complaints Procedure

5.8 Environmental Non-Conformances

A non-conformance may be issued to the Contractor by the TGC Project Manager/Construction Manager/Environmental Officer where:

- The incident response procedure described in section 5.6 above (including administrative requirements) was not successfully implemented; or
- There are repeated incidents due to inadequate environmental practices on site;
- Documentation required to comply with the CEMP is not prepared or maintained adequately on site; or

- Any non-compliance/non-conformance with the requirements of the Environmental Authorisations, the CEMP, permit(s), licence(s) and Environmental Specifications are identified.

Any environmental non-conformance will be dealt with similarly to a *Defect* as defined in the Contract. A defect is due to non-compliance with the *Works Information* and it is the responsibility of the Contractor to correct the defect in order to ensure that the work takes place in accordance with the *Works Information*. Similarly, non-conformance with the CEMP and SES or with any other permit or licence will be regarded as a non-conformance with the *Works Information*. The Contractor is responsible to rectify any *defect* (non-conformance) as defined above promptly.

The Contractor's EO shall be responsible to search for and identify non-conformances with the environmental specifications at inspection intervals agreed to with the TGC Environmental Officer. The TGC Environmental Officer shall also undertake such inspections on a monthly basis. If such monthly inspections indicate that any part of the Contractor's work is non-conformant with the requirements of the CEMP, permit(s), licence(s), the TGC Environmental Officer shall complete an Environmental Non-Conformance Report and advise the TGC PM to issue a Defects Notification to the Contractor accordingly. The Contractor shall correct the non-conformance (defect) within the timeframes specified in the report and notification and submit proof of such correction to the TGC Environmental Officer by virtue of a completed Non-Conformance Report and up to date Non-Conformance Register.

The Contractor shall be responsible to rectify all environmental non-conformances at the time depicted as per Non-conformances that have not been rectified by the defects in the Contract date, the TGC Environmental Officer shall not issue the Contractor with a Site Closure Certificate. In such an event, the Supervisor may also make use of any reasonable contractual means to rectify the non-conformance(s) as allowed by the Contract (retention moneys etc.).

If the defect (non-conformance) is not corrected within the Defect Correction Period, the TGC Construction Manager can assess the cost of correction by others, and this amount needs to be paid by the Contractor.

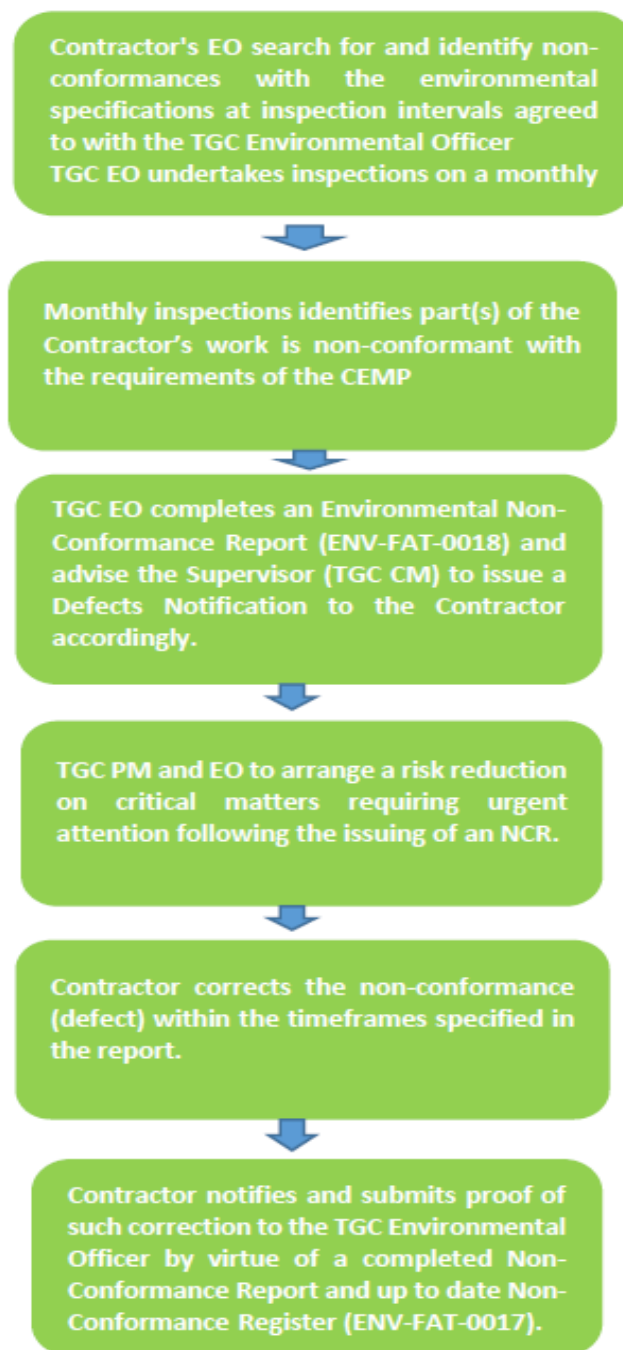


Figure 3: Non-Conformance procedure

NOTE: Each Non-conformance should be listed and numbered separately.

5.9 Documentation and Records

The TGC Document Control will ensure that the Contractor is supplied with all required/applicable documents listed in the TGC Contents for the Contractors Environmental Management File. This Document has been included as **Annexure A**.

The Contractor's Environmental Officer will complete and maintain copies of all documents and records listed in Annexure A and ensure that these documents and records are kept up to date.

The Contractor's Environmental Officer will submit these documents to the TGC Environmental Officer on a frequency as agreed to, except where documents have remained unchanged in which case written notification to this effect must be provided to the TGC Environmental Officer. The Contractor's EO must ensure that electronic copies of these documents are saved on the system.

Once the construction activities have been completed and the TGC Environmental Officer has conducted a site closure inspection and notified the Contractor that site closure will be granted, all documents described above must be handed over to the TGC Environmental Officer after which a Site Closure Certificate will be issued.

NOTE: All documents/records are to be retained, within the TGC Document Control System, for a period of 10 years. In the event of environmental documentation/record being lost before receiving a Site Closure Certificate, the Contractor will be penalised according to the specifications laid down in the relevant project-specific contract.

5.10 Application for Exemption

It is intended that the CEMP and SES be applicable to projects or activities of any size or complexity. For projects with minimal environmental impacts, or where the scope of work is limited; the Contractor may request, in writing to the TGC Project Manager, for exemption from parts of the CEMP. The TGC Project Manager will consult the TGC PEM/TGC Environmental Officer in reaching a decision on whether exemption from some of the CEMP provisions may be granted.

6 Main Actions required by the Contractor to comply

6.1 Prior to Commencement

The TGC Project Manager must ensure that the requirements below are requested of the Contractor in the Project Construction Contract Document, the Letter of Appointment and any other relevant correspondence with the Contractor prior to the start of works, as relevant.

6.1.1 Declaration of Understanding (DoU)

The Declaration of Understanding will be signed, by a person of authority, and provided by the Contractor as part of his Tender Document. The signed DoU is a written confirmation by the Contractor that the requirements of the CEMP, PES, EA, EMPr and other licenses/permits are understood and will be complied with for the duration of their works on site. Post-contract award, a DoU must be signed by the Contractor's EO to confirm that the requirements of the CEMP, SES, PES and other applicable permits and licences will be complied with. A signed DoU must be kept in the green file at all times.

The pro forma DoU to be signed by the Contractor has been included as **Annexure C**.

6.1.2 Appointment of Contractor's Environmental Officer

The Contractor will appoint an Environmental Officer or depending on the environmental impact of the project, assign a competent person, roles and responsibilities for environmental management during construction. The qualifications and experience of this person shall be stipulated at tender stage taking due regard to the complexity of the project and the sensitivity of the environment. The Contractor will forward details of the appointment to the TGC Construction Manager and TGC PEM for their review and approval. Should the Contractor's Environmental Officer or the person originally assigned with responsibilities for environmental management change from that person identified during either the tender stage, or the construction period, the Contractor will submit the details of such appointment or assignment for the TGC Project Manager's approval. No work will proceed until the new Environmental Officer is assigned or appointed. The Contractor's EO must be employed for the duration of the contract and be 100% allocated to project. Sharing of an EO resource between projects is not allowed unless if it's agreed upon with TGC Environment and Sustainability Department.

The pro forma appointment letter for the Environmental Officer to be appointed by the Contractor has been included as **Annexure D**.

6.1.3 Environmental Management Plans and Method Statements

Where relevant, an Environmental Management Plan and Environmental Method Statements, to meet the requirements of the CEMP, SES and relevant EA, permits/licences (activity based environmental method statements), will be provided by the Contractor as part of their Tender.

Required method statements will be specified in the Quality Criteria of the tender. These include, but are not limited to, the following where applicable:

- Establishment of construction lay down area
- Hazardous and non-hazardous waste management
- Storm water management
- Handling, Storage and Management of Hazardous Substances
- Contaminated water management
- Prevention of marine pollution
- Hydrocarbon spills
- Diesel tanks and refuelling procedures
- Dust control
- Spoil dumping
- Sourcing, excavating, transporting and dumping of fill material
- Noise and vibration control
- Removal of rare, endemic or endangered species
- Removal and stockpiling of topsoil
- Rodent and pest control
- Environmental awareness training
- Site establishment and demarcation
- Emergency procedures for environmental incidents
- Closure of construction laydown area
- Rehabilitation

Emergency construction activity Environmental Method Statements may also be required. The activities requiring Environmental Method Statements cannot commence if they have not been approved by the Construction Manager and PEM, ECO or Environmental Officer.

6.1.4 Environmental Induction

The Contractor will ensure that all management, foremen and the general workforce, as well as all sub-contractors, suppliers and visitors to site have attended the TGC Environmental Induction Programme prior to commencing any work on site. Where new personnel commence work on site during the construction period, the Contractor will ensure that these personnel also undergo the TGC Environmental Induction Programme and are made aware of the environmental specifications on site. The Contractor must ensure that all of their personnel understand the

requirements of the EA, EMPr, CEMP, SES, relevant permits and licences and PES as relevant to their scope of work.

6.2 During Construction

6.2.1 Copy of the CEMP and familiarisation thereof

A copy of the CEMP, SES and where relevant, EA, licenses and permits will be available on site and the Contractor will ensure that all the personnel on Site (including sub-contractors and their staff) as well as suppliers, are familiar with and understand the specifications contained in these documents.

6.2.2 Compliance with the SES and PES and relevant permits and licences

The Contractor will ensure that all sections of the SES and PES (where relevant), relevant EA, permits and licences are complied with during the construction period.

6.2.3 Site clean-up for Closure

Retention moneys will not be paid until a Site Closure Inspection (conducted by the TGC Environmental Officer) has taken place and site closure granted and signed off by the TGC Construction Manager and TGC PEM together with the Site Closure Certificate.

7 Environmental Inspections and Audits

7.1 Environmental Inspections and Audits

Environmental inspections and audits are conducted using five basic techniques:

- Interviews with Contractor's staff including Sub-contractors and suppliers
- Document review
- Observations
- Monitoring
- Measurement and verification

This document sets out the areas and aspects of the construction site that will be inspected or audited, the frequency of such audits, the auditor and auditee.

It should be noted that these lists are not exhaustive and that each site will have specific issues that will need to be audited.

For each construction project, the auditor and auditee are as follows:

Table 1: Relationship between Auditor/Auditee

Place	Inspector/Auditor	Auditee	Inspection/audit frequency
Work places	Contractor's Environmental Officer	Contractor's team	Daily/Weekly Inspection
Construction site (entire area)	TGC Environmental Officer	Contractor's Environmental Officer	Monthly Audit
Construction site (entire area)	Environmental Specialist: Assurance	TGC EO and PEM	As stipulated on the annual audit protocol
Construction site (entire area)	Environmental Control Officer	Construction team (TGC and Contractors)	As stipulated on the EA or TGC Contract

7.1.1 Work Places Inspection

The Contractor's Environmental Officer will be required to conduct daily/weekly inspections of all work places for which the Contractor is responsible, including but not limited to the following:

- Contractor's camp, recreational and canteen facilities
- Material lay down areas
- Liquid and solid waste storage facilities (general, hazardous, recycling and scrap)
- Workshops
- Oil traps
- Wash bays
- Construction work area
- Spray Booths
- Haul roads
- No-go areas
- Storm water drains

- Any other construction area for which the SHE Officer is responsible

At each of these sites, the Contractor's Environmental Officer will be required on a daily basis to check for the following, where relevant:

By observation:

- Litter
- Separation of solid waste as per system
- Hydrocarbon spills
- Effectiveness of dust control measures
- Illegal washing out of containers in drains
- Wash bay drainage systems are working
- Correct usage of drip trays
- Effectiveness of oil separators
- Water use and wastage
- Pollution of rivers and sea
- Provision and use of toilet facilities
- Any other illegal activities

By document check:

- Removal of oil for recycling as per schedule
- Removal of packaging as per agreements with suppliers
- Removal of hazardous waste by specialist Contractors as per schedule
- Correct placement of environmental signage and posters
- Document board listing emergency numbers, hazmat info sheets, etc.

The following records must also be kept up to date (information must include that of sub-contractors where relevant):

- Fuel consumption for entire contract period measured in litres (including plant, generators, other equipment, vehicles etc.)
- Electricity consumption for entire contract period measured in Watt hours
- Quantities of general waste submitted for recycling measured in kilograms
- Quantities of general waste disposed of to landfill measured in kilograms
- Quantities of hazardous waste submitted for recycling measured in kilograms
- Quantities of hazardous waste disposed of to landfill measured in kilograms

- Water consumption, including water used for construction and human consumption measured in litres

7.1.2 Construction Site Audit

The TGC Environmental Officer will be required to conduct monthly inspections of the entire construction site, which may involve more than one Contractor and may include, but not be limited to the following:

- Entire site
- Fencing
- Environmentally sensitive areas
- Contractor's camp, recreational and canteen facilities
- Material lay down areas
- Scrap yard
- Workshops
- Oil traps
- Wash bays
- Sewage plant
- Quarries and borrow pits used for fill and construction material
- Spoil dumping areas
- Solid waste disposal areas
- Liquid waste disposal areas
- Bioremediation site
- Area for the temporary storage of hazardous waste
- Fuel depot and hydrocarbon storage areas
- Construction work area
- Concrete batching plant
- Spray booths
- Haul roads
- No-go areas
- Storm water drains
- And any other construction areas not listed

At each of these sites, the TGC Environmental Officer will be required to check for the following, where relevant:

By observation:

- Litter
- Separation of solid waste as per system
- Hydrocarbon spills
- Use of bunding, hard standing and other protection measures
- Illegal dumping
- Effectiveness of dust control measures
- Illegal washing out of containers in drains
- Wash bay drainage systems are working
- Correct usage of drip trays
- Effectiveness of oil separators
- Illegal use of tracks and off-road driving in no-go areas
- Correct procedures are followed for topsoil removal and stockpiling
- Effectiveness of erosion protection measures
- Excess noise and vibration
- Water use and wastage
- Pollution of rivers and sea
- Provision and use of toilet facilities
- Topsoil removed and stockpiled
- Any other illegal activities

By document check:

- All receipts for the collection of old oil, general recycled waste and hazardous waste
- Correct placement of environmental signage, SHEQ policies and posters
- Document board listing emergency numbers, hazmat info sheets, etc.
- Complete and accurate record of Contractor's Environmental File

By measurement:

- Amount of water used by each Contractor (where practical and/or required by TGC EO)
- Amount of land stabilisation completed
- Area re-vegetated
- Amount of waste recycled, sent to scrap yard or disposed in dump
- Amount of material treated in the bioremediation site

By monitoring:

- Effectiveness of dust control systems
- Effectiveness of pollution control systems
- Effectiveness of rehabilitation and re-vegetation programmes
- Effectiveness of erosion control methods
- Effectiveness of noise control barriers

A site-specific inspection checklist will be provided to the TGC Environmental Officer, by the Contractor's EO, prior to site establishment.

7.2 Environmental Performance Criteria

The Contractor will be required to achieve the minimum requirement for environmental audits. The standard/minimum requirement for all environmental audits, as per the TGC Environmental Governance Framework is 80%. Furthermore, the standard/minimum requirement for all audits conducted by ECO is 90%.

8 Associated Forms

The list of applicable environmental forms and templates will be maintained by TGC's Document Management Department, and these are revised as and when required.

9 Records

All environmental records/documents generated during the construction phase of the project will be managed in terms of the Transnet Document, Data and Records Management Procedure.

10 Annexures

- Annexure A: Contents for Contractor's Environmental File**
- Annexure B: Environmental Method Statement Example**
- Annexure C: Declaration of Understanding**
- Annexure D: Appointment of Contractor's Environmental Officer**

Annexure A: Contents for Contractor's Environmental File



CONTENTS FOR CONTRACTOR'S ENVIRONMENTAL FILE

PROJECT NAME:		DOCUMENT NO:	
PROJECT NO:		DATE:	
CONTRACTOR:		CONTRACT NO:	

The following documents must be incorporated into the Contractors Environmental File

No	Item Description	Document No	Tick
1.1	Transnet Safety, Health, Environmental and Quality – Risk Management Policy Statement dated 10 June 2016.		
1.2	TGC Safety, Health, Environmental Management and Quality Policy dated 01 June 2016.		
1.3	Transnet Construction Environmental Management Plan (CEMP) as supplied to Contractor by Transnet Group Capital	ENV-STD-001 Rev03	
1.4	Transnet Standard Environmental Specification (SES) as supplied to Contractor by Transnet Group Capital	ENV-STD-002 Rev03	
2	Project Environmental Specification (PES) as supplied to Contractor by Transnet Group Capital	ENV-FAT-0001	
3	Declaration of Understanding (Signed)	ENV-FAT-0002	
4.1	Contractor's Information	ENV-FAT-0003	
4.2	Contractor's Environmental Policy		
4.3	Contractor's Organogram		
4.4	Contractor's Environmental Management Plan		
4.5	Appointment of Contractors EO and Declaration of Understanding (Including CV and Job Profile)	ENV-FAT-0004	
5	Schedule of Contractor's Construction Plant and Equipment	ENV-FAT-0005	
6	Hazardous Substances Register	ENV-FAT-0006	
7	Emergency Contacts Register	ENV-FAT-0007	
8	Energy Consumption Register	ENV-FAT-0032	


CONTENTS FOR CONTRACTOR'S ENVIRONMENTAL FILE

9	Water Usage Register	ENV-FAT-0033	
10	List of Interested and Affected Parties	ENV-FAT-0008	
11	Induction Attendance Register	Rev 00-01	
12	Project Start-Up Checklist	ENV-FAT-0022	
13	Site Access Certificate	ENV-FAT-0010	
14	Method Statement Register	ENV-FAT-0011	
15	Method Statements	ENV-FAT-0026	
16	Waste Disposal Register	ENV-FAT-0012	
17	Daily Inspection Checklist	ENV-FAT-0023	
18	Weekly Inspection Checklist	ENV-FAT-0024	
19	Monthly Compliance Audits	ENV-FAT-0025	
20	Public Complaints Register	ENV-FAT-0013	
21	Record of Formal External Communications	ENV-FAT-0014	
22	Incident Register	ENV-FAT-0015	
23	Incident Reports	ENV-FAT-0016	
24	Non Conformance Register	ENV-FAT-0017	
25	Non Conformance Reports	ENV-FAT-0018	
26	Awareness/Toolbox Attendance Register (Including Awareness Material)	ENV-FAT-0019	
27	Minutes of Monthly SHE Meetings		
28.1	Environmental Site Rules for Visitors	ENV-GL-0002	
28.2	Environmental Site Rules for Contractors	ENV-GL-0003	
29	Basic Site Procedures	ENV-GL-0001	

CONTENTS FOR CONTRACTOR'S ENVIRONMENTAL FILE

30	TGC Environmental Induction		
31	Contractor's Environmental Management File Handover	ENV-FAT-0020	
32	Site Closure Inspection Form	ENV-FAT-0021	
33	Site Closure Certificate	ENV-FAT-0021	
34	Application for Exemption	ENV-FAT-0034	

Annexure B: Environmental Method Statement Example



ENVIRONMENTAL METHOD STATEMENT

PROJECT NAME:

PROJECT NO: **DOCUMENT NO:**

CONTRACTOR: **DATE:**

PROPOSED ACTIVITY (give title of method statement and reference number from the CEMP):

WHAT WORK IS TO BE UNDERTAKEN (give a brief description of the works):

WHERE ARE THE WORKS TO BE UNDERTAKEN (where possible, provide an annotated plan and a full description of the extent of the works):

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start Date:

End Date:

DESCRIPTION OF HOW POTENTIAL ENVIRONMENTAL IMPACTS WILL BE PREVENTED OR MANAGED (provide as much detail as possible, including annotated sketches and plans where possible):

ENVIRONMENTAL STANDARDS (list the applicable environmental standards to be met):

MONITORING AND RECORD KEEPING (Describe how the activity will be monitored to ensure that the environmental standards are met, as well as the records to be kept):

DECLARATIONS

CONTRACTOR'S ENVIRONMENTAL OFFICER (The work described in this Environmental Method Statement, if carried out according to the methodology described, is satisfactory to prevent or control environmental harm):

Print Name	Signature	Date
------------	-----------	------

PERSON UNDERTAKING THE WORKS I understand the contents of this Environmental Method Statement and the scope of the works required of me. I further understand that this Environmental Method Statement may be amended on application to other signatories and that Transnet Group Capital Environmental Manager and Construction Manager will audit my compliance with the contents of this Environmental Method Statement

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ENVIRONMENTAL METHOD STATEMENT

Print Name	Signature	Date
------------	-----------	------

TGC ENVIRONMENTAL OFFICER The work described in this Environmental Method Statement, if carried out according to the methodology described, is satisfactory to prevent or control environmental harm:

Print Name	Signature	Date
------------	-----------	------

APPROVING AUTHORITY (i.e. the Employer's Construction Manager)

The works described in this Method Statement are approved.

Print Name	Signature	Date
------------	-----------	------

Annexure C: Declaration of Understanding



DECLARATION OF UNDERSTANDING

PROJECT NAME:		DOCUMENT NO:	
PROJECT NO:		DATE:	
CONTRACTOR:		CONTRACT NO:	

I,

(Name)

(Designation)

(Representing)

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

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

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

Annexure D: Appointment of Contractor's Environmental Officer



APPOINTMENT OF CONTRACTOR ENVIRONMENTAL OFFICER & DECLARATION OF UNDERSTANDING

APPOINTMENT OF CONTRACTOR ENVIRONMENTAL OFFICER AND DECLARATION OF UNDERSTANDING		REFERENCE	
<p>We, _____ (Contractor), hereby confirm that _____ has been appointed as Environmental Officer for the duration of Contract _____, the scope of which entails _____ _____ _____ (Description of scope of works) _____</p> <p>I, _____ (Appointed Environmental Officer) declare that I have read and understand the contents of:</p> <ul style="list-style-type: none"> The Transnet Group Capital (TGC) Construction Environmental Management Plan (CEMP) and Standard Environmental Specification (SES), documentation issued for Contract _____ <p>I, (Appointed Environmental Officer) also declare that I understand my responsibilities in terms of enforcing and implementing the requirements of the Construction Environmental Management Plan, Standard Environmental Specification (SES) and any Project Environmental Specifications (PES) that may be relevant or required for this project.</p>			
Environmental Officer CV attached	Y	N	
Environmental Officer Job Description attached	Y	N	
Signed (Contractors Environmental Officer)	Signature		Date
Received By (TGC Environmental Officer)	Signature		Date

ENV-FAT-0004

Rev 2 Page 1



TRANSNET GROUP CAPITAL
ENVIRONMENT AND SUSTAINABILITY

**STANDARD ENVIRONMENTAL
SPECIFICATION (SES)
ENV-STD-002 Rev04**

Document Control

This document will be managed and controlled in terms of the Transnet Document, Data and Records Management Procedure.

Revision History

Author	Date	Description	Revision
Khathutshelo Tshipala	15 September 2011	Standard Environmental Specification (SES)	00
Khathutshelo Tshipala	6 June 2013	Standard Environmental Specification (SES)	01
Biance Schoeman	15 September 2015	Standard Environmental Specification (SES)	02
Biance Schoeman	01 June 2016	Standard Environmental Specification (SES)	03
Nonkululeko Hadebe	30 November 2017	Standard Environmental Specification (SES)	04

This document has been reviewed by:

Reviewer	Date reviewed
Stehan Bouwer	30 November 2017

Document Approvals List

This document has been approved by


Name	SAP Component	Signature	Date approved
Khathutshelo Tshipala	Executive Manager: Environment and Sustainability		30 November 2017

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1 Purpose

This specification describes the minimum standards for environmental management to which Contractors and Sub-contractors on a construction site must comply. It is a generic standard for use across all construction works executed by Transnet Group Capital (TGC).

There may be project specific environmental standards in addition to the standards in this document that exceed the standards prescribed here. The project specific environmental standards will be described in the Project Environmental Specification (PES) that will be issued separately for each project (where relevant).

This document must be read in conjunction with the TGC Construction Environmental Management Plan (CEMP).

2 Scope

This standard applies to Contractors that work on site under the authority of TGC.

3 Abbreviations and Definitions

3.1 Abbreviations

Abbreviation	Meaning
CEMP	Construction Environmental Management Plan
CM	Construction Manager
DEA	Department of Environmental Affairs
EA	Environmental Authorisation
EO	Environmental Officer
EGF	Environmental Governance Framework
NEMA	National Environmental Management Act 107 of 1998 (as amended)
NEM:BA	National Environmental Management: Biodiversity Act 10 of 2004
NWA	National Water Act 36 of 1998
PEM	Project Environmental Manager

PM	Project Manager
PES	Project Environmental Specification
SES	Standard Environmental Specification
SHEQ	Safety, Health, Environment and Quality
TGC	Transnet Group Capital

3.2 Definitions

Fauna	A group of animals specific to a certain region or time period.
Flora	A group of plants specific to a certain region or time period.
General waste	<p>Waste that does not pose an immediate hazard or threat to health or to the environment; and includes:</p> <ul style="list-style-type: none"> (a) domestic waste; (b) building and demolition waste; (c) business waste; (d) inert waste; or (e) any waste classified as non-hazardous waste in terms of NEMWA, 59 of 2008.
Hazardous waste	Any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment and includes hazardous substances, materials or objects within business waste, residue deposits and residue stockpiles.
Indigenous vegetation	Plants that naturally occur in an area.
Liquid waste	Waste that appear in liquid form such as used oil, grease and/or contaminated water or waste water.

Method statement	A document that describes how the Contractor will implement environmental management measures associated with a particular environmental aspect during construction. It is a written submission by the Contractor to the TGC Environmental Officer/Construction Manager in response to this Specification or a request by the Engineer, an ECO or Authorities setting out the equipment, plant, materials, labour and method the Contractor proposes to use to carry out an activity identified by this Specification or the TGC EO when requesting the Method Statement, in such detail that the TGC EO is able to assess whether the Contractor's proposal is in accordance with this Specification and/ or will produce results in accordance with this Specification.
Natural Vegetation	All existing species, indigenous or otherwise, of trees, shrubs, groundcover, grasses and all other plants found growing on the site.
Rehabilitation	Refers measures that must be put in place to restore the site to its pre-construction or enhanced state, subsequent to construction taking place.
Responsible Authority	A Responsible Authority, according to the National Water Act 36 of 1998, relates to specific power or authority in respect of water uses that is assigned by the Minister to a Catchment Management Agency or to a Regional Office.
Sensitive area	Any area that is denoted as sensitive by this Specification due to its particular attributes, which could include the presence of rare or endangered vegetation, the presence of heritage resources (<i>e.g.</i> archaeological artefact or graves), the presence of a unique natural feature, the presence of a watercourse or water body, the presence of steep slopes.

Solid waste	All solid waste, including construction debris, chemical waste, excess cement/ concrete, wrapping materials, timber, tins and cans, drums, wire, nails, food and domestic waste (e.g. plastic packets and wrappers).
Spoil	Excavated material which is unsuitable for re-use as material in the Works or any other use; or is material which is surplus to the requirements of the Works.
Temporary Storage	A once-off storage of waste for a period not exceeding 90 days.
Topsoil	Means a varying depth (up to 300 mm) of the soil profile irrespective of the fertility appearance, structure, agricultural potential, fertility and composition of the soil.
Waste	Any substance, material or object, that is unwanted, rejected, abandoned, discarded or disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes. Waste or a portion of waste ceases to be a waste only once the waste is, or has been re-used, recycled or recovered.
Watercourse	Means: <ul style="list-style-type: none"> a) a river or spring; b) a natural channel in which water flows regularly or intermittently; c) a wetland, lake or dam into which, or from which, water flows; and d) any collection of water gazetted by the National Water Act, 36 of 1998 as a watercourse and a reference to a watercourse includes, where relevant, its bed and banks

Wetland

Land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

4 Minimum Standards for Environmental Management

The Contractor shall identify the potential environmental aspects and impacts that may occur as a result of his/her activities and accordingly prepare separate Method Statements describing how each of these impacts will be prevented or managed so that the standards set out in this document are achieved. These method statements will be prepared in accordance with the requirements set out in the CEMP.

The Contractor will comply with the standards described below.

4.1 Site Planning and Establishment

The Contractor shall establish his construction camps, offices, workshops, eating areas and any other facilities on the site in a manner that does not adversely affect the environment. These facilities must not be sited in close proximity to sensitive areas. Where required a buffer must be determined by the ecological requirements of the fauna/flora found on-site.

The Contractor shall ensure that a most recent Transnet SHEQ Policy is displayed on the notice-board at all times.

4.1.1 Site plan

Before the onset of construction, the Contractor shall submit to the TGC Construction Manager and TGC Environmental Officer for their approval, plans of the exact location, extent and construction details of the proposed facilities and the impact mitigation measures the Contractor proposes to put in place. Any changes to the location of the facilities and site activities as per the approved site layout plan shall be re-submitted for approval prior to implementation of changes.

The Site Plan must as a minimum include but not necessarily be limited to:

- Detailed layout of the construction works areas including access roads, site offices, material laydown areas, temporary stockpile areas and parking areas;
- Detailed locality and layout of all waste storage and handling facilities for litter, kitchen refuse and workshop-derived liquid waste;
- Proposed areas for the stockpiling of topsoil and excavated spoil material;
- Demarcation of the construction footprint including areas not to be disturbed by the development; and
- Location of sewage and sanitary facilities at the site offices and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of the TGC Construction Manager and Environmental Officer.

The site offices should not be sited in close proximity to steep areas. It is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles be located as far away as possible from any watercourse. Should this not be possible, approval for the location of these facilities must be granted by the TGC Environmental Officer.

4.1.2 Identification and establishment of suitable access routes/roads

Existing access routes to the construction/works areas must be used as far as possible. The building of access roads must be restricted to within the development footprint to prevent unnecessary disturbance of the surrounding environment. However, prior to making a decision about a new access road, the TGC Environmental Officer must assess the proposed access road against the prevailing environmental legislation to confirm/rule out possible EIA triggers. Access tracks must be maintained in a good condition at all times during construction to minimize erosion and dust generation.

4.1.3 Demarcation of site limits

Prior to the commencement of construction, the actual site to be developed must be clearly demarcated through the most effective means. Vegetation within the demarcated zone may be

cleared only upon obtaining approval from the TGC Environmental Officer. Disturbance of vegetation outside of the demarcated development footprint is not permitted.

All plant, material and equipment required for construction must be located within the designated areas. Laydown areas must be clearly demarcated within the site limits. No activities are allowed outside of the demarcated development footprint.

4.1.4 *Eating Areas*

The Contractor is responsible for providing adequate eating facilities within the works area to ensure that workers do not leave the site to eat during working hours. Refuse bags/bins must be provided at all established eating areas and when full it should be disposed as required by Section 4.3 below.

4.1.5 *Liquid waste Management*

Liquid waste water from site shall be stored on-site in a properly designed and constructed system, situated so as not to adversely affect water courses (streams, rivers, pans, dams etc.). Only domestic type wastewater, i.e. toilet, shower, basin, kitchen water shall be allowed to enter the designated system.

4.2 *Sewage and Sanitation*

The Contractor is responsible for providing adequate sanitary facilities including toilets, toilet paper, wash basins etc. to all workers on site and for enforcing the proper use of these facilities. Safe and effective sewage treatment will require one of the following sewage handling methods: dry-composting toilets such as “enviro loos” or the use of chemical toilets which are supplied and maintained by a suitably qualified Sub-contractor. The type of sewage treatment will depend on the location of the site and the surrounding land uses, the duration of the contract and proximity (availability) of providers of chemical toilets.

Toilet facilities shall be serviced regularly and the waste material generated from these facilities shall be disposed of at a registered waste water treatment works/macerator and proof of servicing and disposal shall be made available in the Contractor EO’s File.

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of open areas (i.e. the veldt) shall not, under any circumstances, be allowed. For projects of high mobility a mobile toilet facility shall be made available by the Contractor.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. Toilets must not be placed in areas susceptible to flooding or high winds. The Contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such facilities in a clean, orderly and hygienic condition to the satisfaction of the TGC Construction Manager.

4.3 Waste Management

Waste is grouped into "general" or "hazardous", depending on its characteristics. The classification determines handling methods and the ultimate disposal of material.

General waste to be expected during construction includes the following:

- Trash (waste paper, plastics, cardboard, etc.) and food waste from offices, warehouses and construction personnel;
- Uncontaminated construction debris such as used wood and scrap metal; and
- Uncontaminated soil and non-hazardous rubble from excavation or demolition.

The Contractor shall classify all waste expected to be generated during the construction period. Examples of typical construction waste which could be expected on the site and how they should be classified are indicated in the following table:

TABLE 1: EXAMPLE OF CONSTRUCTION WASTE CLASSIFICATION

WASTE	CLASSIFICATION	
	HAZARDOUS	GENERAL
Aerosol containers	X	
Batteries, light bulbs, circuit boards, etc.	X	X
Clean soil		X
Construction debris contaminated by oil or organic compounds	X	

WASTE	CLASSIFICATION	
	HAZARDOUS	GENERAL
Domestic waste		X
Empty drums (depends on prior use)	X	X
Empty paint and coating containers		X
Explosive waste	X	
PCB waste	X	
Rubble (not contaminated by oil or organic compounds)		X
Waste Cable		X
Waste plastic		X
Waste paint and/or solvent	X	
Waste oil	X	
Waste concrete		X
Waste cement powder	X	
Waste empty cement bags (must be thoroughly decanted)		X
Waste containing fibrous asbestos	X	
Waste timber		X
Sewerage sludge	X	
Scrap metal		X
Chemically-derived sanitary waste	X	

A hierarchical control approach to waste management is encouraged. Waste should preferably be managed in the following order of preference:

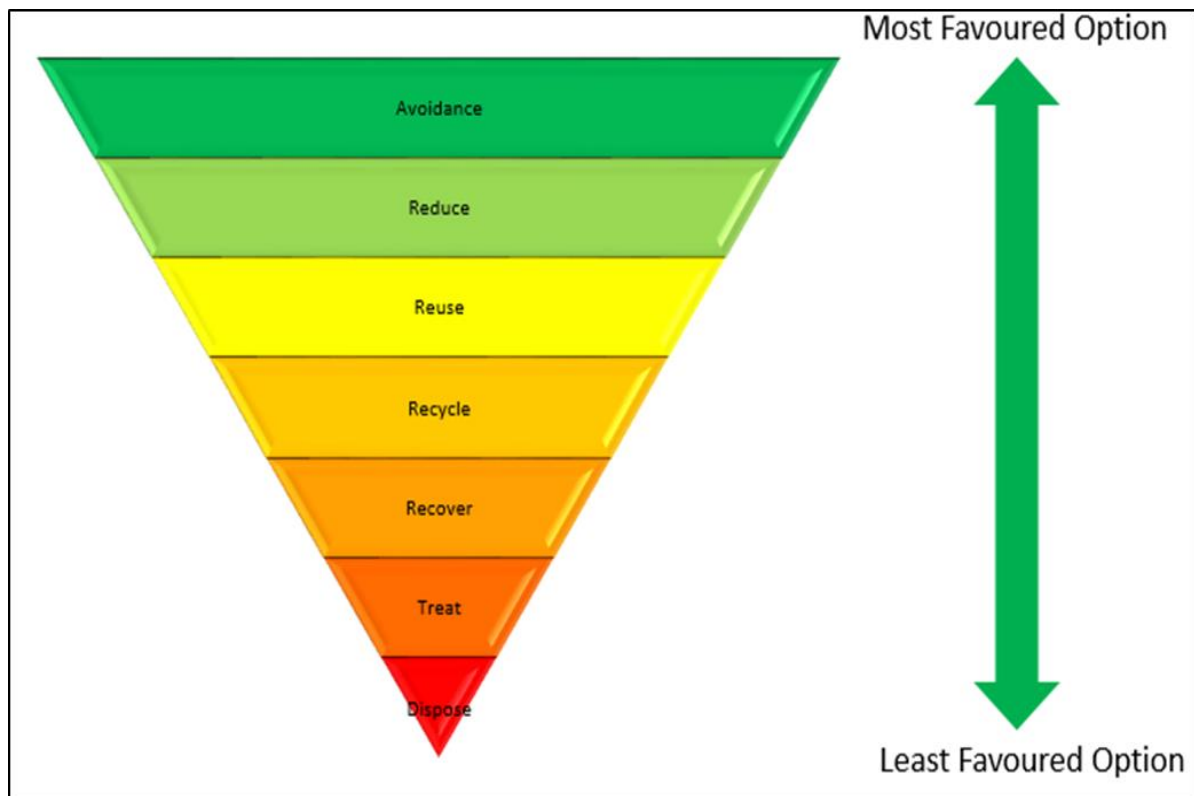


FIGURE 1: THE WASTE MANAGEMENT HIERARCHY

(Transnet Environmental Risk Management Strategy and Framework, 2015:42)

Avoidance/Prevention:	using goods in a manner that minimises their waste components
Reduction/Minimisation:	reduction of the quantity and toxicity of waste generated during construction
Re-use:	removing an article from a waste stream for use in a similar or different purpose without changing its form or properties
Recycling:	separating articles from a waste stream and processing them as products or raw materials
Recovery:	reclaiming particular components or materials, or using the waste as a fuel
Treatment:	processing of waste by changing its form or properties in order to reduce toxicity and quantity
Disposal:	burial, deposit, discharge, abandoning or release of waste

The Contractor is responsible for the removal of all waste from site generated through the construction activities. The Contractor shall ensure that all waste is removed to appropriate licensed waste management facilities. (For the identification of an appropriate facility, the following source may be utilized: <http://sawic.environment.gov.za/>).

The Contractor's Environmental Officer will work in conjunction with the Contractor's Safety and Health personnel to create a Hazardous Materials Management Program. This program will establish the necessary protocol for proper handling and removal of hazardous materials on the site.

The Contractor shall manage **GENERAL WASTE** that is anticipated to be generated by operations as follows:

- Notify waste hauler when container is full so that it can be removed and replaced with an empty container/skip;
- No littering is allowed on site. In the event where staff mobility is high, refuse bags will be made available by the Contractor;
- Provide documented evidence of proper disposal of waste (Waste Disposal Certificate)

The Contractor shall recycle **GENERAL WASTE** (as far as practically possible) that is anticipated to be generated by its operations as follows:

- Obtain and label recycling containers for the following (whichever relevant) and locate them within temporary office building and trailers:
 - Office Waste;
 - Aluminium;
 - Steel;
 - Glass;
 - Ferrous Metals;
 - Non Ferrous Metals; and
 - Waste Timber
- Establish recycled material collection schedule
- Arrange for full bins to be hauled away

Spent batteries, circuit boards, and bulbs, while non-hazardous, require separate storage, special collection and handling.

No burning, burying or dumping of waste of any kind will be permitted.

The Contractor shall manage **HAZARDOUS WASTE** anticipated to be generated by his operations as follows:

- Obtain and provide an acceptable container with correct and visible classification label;
- Place hazardous waste material in allocated container;
- Inspect the container on a regular basis as prescribed by the Contractor's waste management plan;
- Track the accumulation time for the waste, haul the full container to the registered hazardous disposal site;
- Notify the waste hauler when container is full so that it can be removed and replaced with an empty container/skip; and
- Provide documented evidence of proper waste disposal of the waste (Waste Disposal Certificate).

The Contractor shall quantify all waste disposed of, whether general or hazardous (including waste disposed of by any sub-contractors) and keep record of these quantities on site.

4.4 Workshops, equipment maintenance and storage

All vehicles and equipment must be kept in good working order to maximise efficiency and minimise pollution. Maintenance, including washing and refueling of plant on site must be done at designated locations at workshop areas. These designated areas must be agreed with the TGC Construction Manager and TGC Environmental Officer. The Contractor must ensure that no contamination of soil or vegetation occurs around workshops and plant maintenance facilities. All machinery servicing areas must be bunded. Drip trays should be used to collect used oil, lubricants at all times. Drip trays must be provided for all stationary plant. Washing of equipment should be restricted to urgent maintenance requirements only. Adequate wastewater collection facilities must be provided and the wastewater should be disposed of at a registered hazardous waste disposal site.

4.5 Vehicle and Equipment Refueling

4.5.1 Stationary/Designated Refueling

No vehicles or machines shall be serviced or refuelled on site except at designated and approved servicing or refuelling locations. No oil or lubricant changes shall be made except at designate locations, or in case of breakdown or emergency repair.

The Contractor shall store fuel and oil at a secure area, which shall be bunded to contain 110% of the total volume within the bund and designed with an impervious layer or liner or paved surface to prevent spillage from entering the ground.

The Contractor shall provide details of its proposed fuel storage and fuelling facility to the TGC Environmental Officer for approval. The design shall comply with the regulations of the National Water Act, (Act 36 of 1998), the Hazardous Substances Act, (Act 15 of 1973), the Environmental Conservation Act, (Act 73 of 1989), National Environmental Management Act, (Act 107 of 1998), and the Occupational Health and Safety Act, (Act 85 of 1993), mainly the Construction - and Hazardous Chemical Substances Regulations.

4.5.2 Mobile Refueling

In certain circumstances, the refuelling of vehicles or equipment in a designated area is not a viable/practicable option and refuelling has to be done from a tank, truck, bowser or container moved around on site. In such circumstances, the Contractor may request approval from the TGC Construction Manager to conduct mobile refuelling subject to the following control measures:

- Secondary containment equipment shall be in place. This equipment shall be sized to contain the most likely volume of fuel that could be spilt during transfer.
 - Absorbent pads or drip trays are to be placed around the fuel inlet prior to dispensing.
 - Mobile refuelling units are to be operated by a designated competent person.
 - The transfer of fuel must be stopped prior to overflowing. Fuel tanks or refuelling equipment on vehicles may only be filled to 90% carrying capacity.
 - Mobile fuelling tanks must be stored in an area where they are not susceptible to collisions.
- The fuel storage area must be located away from drainage channels.

- Mobile refuelling operations shall not take place within 30 meters of any watercourses or 7.5 meter from other structures, property lines, public ways or combustible storage.
- All mobile refuelling tanks are to be properly labelled and fire extinguishers with valid service dates shall be located near the fuel storage areas. These extinguishers must be of a suitable type and size.

4.6 Spill Response

The Contractor shall have adequate spill response materials/equipment on site which must be aligned with the volumes of hazardous substances used on site and the risk of pollution to sensitive environmental attributes.

The Contractor shall provide details for approval by the TGC Construction Manager and TGC Environmental Officer of its spill response plan in the event of any spills of fuel, oils, solvents, paints or other hazardous materials. The plan will show measures to be taken in removing contaminated material from site and demonstrate complete removal of contamination.

The Contractor shall instruct construction personnel on the following spill prevention and containment responsibilities:

- Immediately repair all leaks of hydrocarbons or chemicals;
- Take all reasonable means to prevent spills or leaks;
- Do not allow sumps receiving oil or oily water to overflow;
- Prevent storm water runoff from contamination by leaking or spilled drums of oil or chemicals; and
- Do not discharge oil or contaminants into storm water or sewer systems.

If a spill occurs on land, the Contractor must:

- Immediately stop or reduce the spill
- Contain the spill
- Recover the spilled product
- Remediate the site
- Implement actions necessary to prevent the spill from contaminating groundwater or off-site surface water
- Dispose of contaminated material at a registered hazardous waste disposal site and provide proof thereof (SDCs)

Any spill to water has the potential to disperse quickly, therefore, the spill must be contained immediately using appropriate containment equipment.

If a spill to water occurs, the Contractor must:

- Take immediate action to stop or reduce the spill and contain it
- Notify the appropriate on-site authorities
- Implement actions necessary to prevent the spread of the contamination by deploying booms and/or absorbent material
- Recover the spilled product
- Dispose of spilled material at a registered hazardous waste disposal site and provide SDCs
- Water samples to be taken downstream from where the spill took place to trace the extent of pollution

4.7 Spray Painting and Sandblasting

Spray painting and sandblasting should be kept to a minimum. All painting should, as far as practicable, be done before equipment and material is brought on site. Touch-up painting is to be done by hand painting or by an approved procedure. A Method Statement shall be submitted to the TGC Environmental Officer for approval.

The relevant Contractor will inform his Environmental Officer of when and where spray painting or sandblasting is to be carried out prior to commencement of work. The Contractor's Environmental Officer will monitor these activities to ensure that adequate measures are taken to prevent contamination of the soil.

If the area is in confined or high (elevated) areas, a protection plan must be issued for approval by the TGC Environmental Officer.

4.8 Dust Management

Contractors are responsible for managing dust generated as a result of their activities. The use of water for dust management must be minimised as far as practically possible. Discretion must be applied on a site-by-site basis in terms of dust control. Dust control measures must be agreed upon by the TGC EO prior to commencement of the Works.

Below are some dust control measures which can be applied during construction:

- Operate vehicles within speed limits, where no speed limit has been specified, the limit shall be 20km/h;
- Minimise haulage distances where possible;
- Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel roads and construction areas;
- The introduction of hydro-seeding and mulch due to its ability to bind soil particles together and thus reduce fugitive dust on-site;
- Dust suppression measures will also apply to inactive construction areas. (An inactive construction site is one on which construction will not occur for a month or more);
- Minimise disturbance of natural vegetation during right-of-way construction (e.g. transmission lines and erection of fences) to reduce potential erosion, runoff, and airborne dust;
- Material in transit should be loaded and contained within the load bin of the vehicle in such a way as to prevent any spillage onto the roads and the creation of dust clouds. If necessary, the load bin of the vehicle shall be covered with a tarpaulin to prevent dust;
- Implement a system of reporting excessive dust conditions by construction personnel (as instructed through Environmental Awareness Training);
- In cases where water is to be used for dust control; it shall be ensured that only authorised sources are used; and
- Apply water to gravel roads with a spraying truck when required

4.9 Storm water and Dewatering Management

The Contractor shall be aware that, apart from runoff from overburden emplacements and stock piles, storm water can also be contaminated from batch plants, workshops, vehicle wash-down pads etc., and that contaminants during construction may include hydrocarbons from fuels and lubricants, sewerage from employee ablutions and excess fertiliser from rehabilitated areas, etc.

The Contractor shall take note that discharges to controlled waters such as the sea, rivers, groundwater or to sewerage systems are controlled under the South African Water Legislation. The following specific measures are required:

- Temporary drainage must be established on site during the construction period until permanent drainage is in place. Contractors are responsible for maintaining the temporary

drainage in their areas. Contractors must provide secondary drainage that prevents erosion, where necessary.

- Contractors must employ good housekeeping in their areas to prevent contamination of drainage water.
- The Contractor shall clear stagnant water at all times.
- The Contractor shall ensure that no contaminated surface water flows off-site as a result of Contractor operations. Where necessary, silt traps shall be constructed to ensure retention of silt on site and cut-off ditches shall be constructed to ensure no runoff from the site except at points where silt traps are provided. The Contractor shall be responsible for checking and maintaining all silt traps for the duration of the project.
- The removal from groundwater is defined as a water-use under the National Water Act 36 of 1998. Therefore, it must be ensured that the project has been authorised by the Responsible Authority to remove groundwater prior to dewatering taking place. If applicable, the Contractor shall be responsible for collection, management, and containment within the site boundaries of all dewatering from all general site preparation activities.
- No discharge/dewatering to off-site land or surface water bodies will be allowed
- On-site drainage shall be accomplished through gravity flow. The surface drainage system shall consist of mild overland slopes, ditches, and culverts. The graded areas adjacent to buildings shall be sloped away with a 5% slope. Other areas shall have a minimum slope of 0,2% or as otherwise indicated
- Ditches shall be designed to carry a 25-year storm event with velocities in accordance to minimise erosion. Erosion protection shall consist of suitable stabilising surfaces in all ditches.
- Culverts shall be designed to ensure passage of the 50-year storm peak runoff flow.

4.10 Erosion Control

All structural and non-structural (vegetative) erosion control measures will be designed, implemented, and properly maintained in accordance with best management practices which will include, but not limited to the following:

- Scheduling of activities to minimise the amount of disturbed area at any one time;
- Implementation of re-vegetation as early as feasible;
- Limiting construction traffic and/or avoidance thereof on access roads and areas to be graded to the extent feasible at drainage ditches;

- Compacting loose soil as soon as possible after excavation, grading, or filling;
- Using silt fences, geo-textiles, temporary rip-rap, soil stabilisation with gravel, diversionary berms or swales, small sedimentation basins, and gravelled roads to minimise transport of sediment;
- Implementing the erosion and sedimentation control plan and ensuring that construction personnel are familiar with and adhere to it;
- Managing runoff during construction; and
- The Contractor shall be responsible for checking and maintaining all erosion and sedimentation controls.

4.11 Noise Management

The Contractor must implement the following measures, as a minimum, to manage noise pollution resulting from his/her activities:

- Keep all equipment in good working order;
- Operate equipment within its specification and capacity and don't overload machines;
- Apply regular maintenance, particularly with regards to lubrication;
- Operate equipment with appropriate noise abatement accessories, such as sound hoods;
- Sensitive social receptors shall be notified of any excessive noise-generating activities that could affect them;
- Ensure that the potential noise source will conform to the South African Bureau of Standards recommended code of practice, *SANS 10103:2004* or the latest at the time, so that it will not produce excessive or undesirable noise when released;
- All the Contractor's equipment shall be fitted with effective exhaust silencers and shall comply with the South African Bureau of Standards recommended code of practice, *SANS 10103:2004* or the latest at the time, for construction plant noise generation
- All the Contractor's vehicles shall be fitted with effective exhaust silencers and shall comply with the Road Traffic Act, (Act 29 of 1989) when any such vehicle is operated on a public road
- If on-site noise control is not effective, protect the victims of noise by ensuring that all noise-related occupational health provisions are met. (Occupational Health and Safety Act, (Act 85 of 1993).

4.12 Protection of heritage resources

4.12.1 *Archaeological Sites*

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the TGC CM and TGC EO of such a discovery. The South African Heritage Resources Agency (SAHRA) or relevant Authority is to be contacted and will appoint an Archaeologist to investigate the find. Work may only resume once clearance is given in writing by the Archaeologist.

4.12.2 *Graves and middens*

If a grave or midden is uncovered on site, or discovered before the commencement of work, all work in the immediate vicinity of the graves/middens shall be stopped and the TGC Construction Manager and EO informed of the discovery. The South African Heritage Resources Agency (SAHRA) or relevant Authority should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with the SAHRA, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred.

4.13 Fire prevention

Fires shall only be allowed in facilities or equipment specially constructed for this purpose.

A firebreak shall be cleared and maintained around the perimeter of the camp and office sites where and when necessary in accordance with relevant legislative requirements.

All conditions incorporated in the requirements of the Occupational Health and Safety Act shall be implemented.

4.14 Water Protection and Management

No water shall be abstracted from any water course (stream, river, or dam) without the expressed permission of the TGC Construction Manager and TGC Environmental Officer. Such permission shall only be granted once it can be shown that the water is safe for use, that there is sufficient water in the resource to meet the demand, and once permission has been obtained from the Department of Water and Sanitation in accordance with the requirements of the National Water Act (Act 36 of 1998).

Water for human consumption shall be available at the site offices and at other convenient locations on site. The generally acceptable standard is that a supply of drinking water shall be available within 200m of any point on the construction site.

Method Statement(s) must be prepared by the Contractor for the various water uses. The Contractor shall keep a record of the quantities of water used during construction (including use by sub-contractors), irrespective of the purpose of use.

4.15 Protection of Fauna and the collection of firewood

On no account shall any hunting or fishing activity of any kind be allowed. This includes the setting of traps, or the killing of any animal caught in construction works.

On no account shall any animal, reptile or bird of any sort be killed. This specifically includes snakes or other creatures considered potentially dangerous discovered on site. If such an animal is discovered on site an appropriately skilled person should be summoned to remove the creature from the site. Consideration should be given to selection and nomination of such a person prior to site establishment. If no-one is available, training should be provided to at least two site staff members.

The Contractor shall provide adequate facilities for all his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The Contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

4.16 Environmental Awareness Training

An Environmental Awareness Program is considered a necessary part of the Construction Environmental Management Plan for the Project. Training of the appropriate construction personnel will help ensure that all environmental regulations and requirements are followed which must be defined in the relevant Method Statement to be prepared by the Contractor.

Objectives of environmental awareness training are:

- Environmental Management – protecting the environment from the effects of construction by making personnel aware of sensitive environmental resources.
- Regulatory compliance – complying with requirements contained in project – specific permit conditions, also complying with requirements in regional and local regulations.
- Problem recognition and communication – training personnel to recognise potential environmental problems, i.e. spills, and communicate the problem to the Contractor's EO for a solution.
- Liability control - non-compliance with regulatory requirements can lead to personal and corporate liability.

All individuals on the Project construction site will need to have a minimum awareness of environmental requirements and responsibilities. However, not all need to have the same degree of awareness. The required degree of knowledge is greatest for personnel in the Safety, Health, and Environmental Sections and the least for the manual personnel.

The Contractor shall present environmental awareness programmes on a weekly/bi-monthly basis (depending on project requirements) and keep record of all the environmental related training of the personnel.

4.17 Handling and Batching of Concrete and Cement

Concrete batching shall only be conducted in demarcated areas which have been approved by the TGC Construction Manager and TGC EO.

Such areas shall be fitted with a containment facility for the collection of cement-laden water. This facility shall be bunded and have an impermeable surface protection so as to prevent soil

and groundwater contamination. Drainage of the collection facility will be separated from any infrastructure that contains clean surface runoff.

The batching facility will not be placed in areas prone to floods or the generation of stagnant water. Access to the facility will be controlled so as to minimise potential environmental impacts. Hand mixing of cement and concrete shall be done on mortarboards and/or within the bunded area with impermeable surface or concrete slab. Bulk and bagged cement and concrete additives will be stored in an appropriate facility at least 10m away from any watercourses, gullies and drains.

Waste water collected in the containment facility shall be left to evaporate. The Contractor shall monitor water levels to prevent overflows from the facility. It is acknowledged that all waste water will evaporate; it must be ensured that the remaining water can be pumped into sealed drums for temporary storage and must be disposed of as liquid hazardous waste.

All concrete washing equipment, such as shovels, mixer drums, concrete chutes, etc. shall be done within the washout facility. Water used for washing shall be restricted as far as practically possible.

Ready-mix concrete trucks are not allowed to wash out anywhere other than in an area designated and approved by the TGC Construction Manager and EO for this purpose.

The Contractor shall periodically clean out hardened concrete from the wash-out facility or concrete mixer, which can either be reused or disposed of as per accepted waste management procedures.

Empty cement and bags, if temporarily stored on site, must be collected and stored in weatherproof containers. Used cement bags may not be used for any other purpose and must be disposed of on a regular basis in accordance with the Contractor's solid waste management system.

Sand and aggregates containing cement will be kept damp to prevent the generation of dust.

Concrete and cement or any solid waste materials containing concrete and cement will be disposed of at a relevant registered disposal facility and SDCs kept on the file. Where disposal

facilities for general waste are utilised, written consent from the relevant municipality must be obtained by the Contractor and proper records kept.

4.18 Stockpiling, Soil Management and Protection of Flora

The Contractor shall measure the extent of all areas cleared for construction purposes and keep this figure updated. Sensitive areas shall be cordoned off and avoided in this regard.

Stockpiling may only take place in designated areas indicated on the approved site layout plan. Any area to be used for stockpiling or material laydown shall be stripped of all topsoil.

Clearance of vegetation shall be restricted to that which is required to facilitate the execution of the works. Vegetation clearance shall occur in a planned manner, and cleared areas shall be stabilised as soon as possible when and where necessary. The detail of vegetation clearing shall be subject to the TGC Construction Manager's approval and shall occur in consultation with the TGC Environmental Officer.

Stockpiles must be positioned in areas sheltered from the wind and rain to prevent erosion and dispersion of loose materials. Stockpiled soil shall be protected by adequate erosion-control measures. Soil stockpiles shall be located away from drainage lines, watercourses and areas of temporary inundation. Stockpiles containing topsoil shall not exceed 2m in height unless otherwise permitted by Transnet.

Topsoil shall be stockpiled separately from other materials and prevented from movement. Excavated subsoil, where not contaminated, must be used for backfilling, if possible, and topsoil for landscaping and rehabilitation of disturbed areas. Where topsoil has become mixed with subsoil or is not up to the original standard, fertiliser or new topsoil shall be provided by the Contractor.

No vegetation located outside the construction site shall be destroyed or damaged. As far as is reasonably practicable, existing roads must be used for access to the site. Before site clearance takes place, vegetation surveys must be conducted and protected species identified.

No protected plant species shall be removed without written consent from the relevant authorities. The development of new embankments or fill areas must be undertaken in consultation with the TGC Environmental Officer.

No dumping of solid waste or refuse shall be allowed within or adjacent to areas of natural vegetation.

The Contractor shall identify and eradicate all declared alien and invasive plant species occurring on site.

4.19 Traffic Management

Vehicles usage is permitted **only** on access roads. Vehicles should only be parked within designated parking areas as demarcated on the site layout plan.

Turning of vehicles should only take place within a clearly demarcated "turn area" located within the approved construction footprint.

The Contractor must co-ordinate the loading and offloading of material during the construction phase so as to ensure that vehicular movement is in one direction only at any one time and that side-tracks are not created on the site.

4.20 Transportation of Materials

The Contractor is responsible for ensuring that all suppliers and delivery drivers are aware of procedures and restrictions (e.g. no-go areas) in terms of the CEMP and this Specification. Material must be appropriately secured to ensure safe passage between destinations during transportation. Loads must have appropriate cover, where ADTs are not utilised, to prevent spillage from the vehicles. The Contractor will be held responsible for any clean-up resulting from the failure to properly secure transported materials.

4.21 Borrow Pits and Quarries

The Contractor shall ensure that suppliers of rock and sand raw materials are in possession of the required permit/license and keep record of the quantity of material supplied.

The Contractor will not make direct use of any borrow pits and quarries unless the borrow pit has a valid permit, he has obtained written approval from the TGC Construction Manager and Method Statement has been submitted and approved. The Method Statement will provide the detailed description of the location of the borrow pits and/or quarries and the procedures that will be followed to adhere to any pertinent national or local legislation (e.g. mineral extraction, rehabilitation, safety and noise levels).

4.22 Social and Labour Issues

The criteria for and selection of labourers, sub-contractors and suppliers for the project shall demonstrate preference for the local community and shall be aligned with the criteria set by TGC in appointing the Contractor. The Contractor shall keep records of the identity of all staff.

Under no circumstances shall the Contractors engage in formal discussions with landowners without prior consent by the TGC Construction Manager.

No activity on private property shall be allowed without written consent by the relevant landowner and TGC Construction Manager/TGC Environmental Officer.

Any damage to private property caused by the Contractor during the construction period, shall be repaired to the satisfaction of the TGC CM and the TGC EO and the land-owner.

The Contractor shall keep record of any complaint raised during the construction period relating to the Contractor's activities.

No job-seekers shall be allowed on site and signs reflecting such shall be displayed on the notice boards.

All public complaints received shall be dealt with as per the CEMP.

4.23 Energy Management

The Contractor shall measure and keep updated records of the following:

- Electricity consumption (to be measured in Kilowatt Hours)
- Fuel consumption (to be measured in liters)

4.24 Handling, Storage and Management of Hazardous Substances

All hazardous materials/substances shall be stored in a secured, designated area that is fenced, bunded and has restricted entry.

All storage shall take place using suitable containers to the approval of the TGC Construction Manager and EO.

All hazardous liquids shall be located in a secure, demarcated area and an adequate bund wall (110% of the total volume stored) shall be provided. The floor and wall of the bund area shall be impervious to prevent infiltration of any spilled/leaked liquids into the soil.

No spillages or accumulated stormwater within this bunded area will be allowed to be flushed from the bund into the surrounding area. All fluids accumulated within the bunded area shall be removed and disposed of in accordance with Section 4.3 above.

Hazard signs indicating the nature and volume of the stored materials shall be displayed on the storage facility or containment structure.

Weighbills of hazardous substances shall be sourced from suppliers and kept on site for inspection by the TGC Environmental Officer.

The Contractor must provide a method statement detailing the hazardous substances that are to be used during construction, as well as the storage, handling and disposal procedures for each substance. Emergency procedures in the event of misuse or spillage that might negatively affect the environment must be specified.

Information on each hazardous substance will be available to all persons on site in the form of Material Safety Data Sheets (MSDS)/Safety Data Sheets (SDS). Training and education about

the proper use, handling, and disposal of the material will be provided to all workers handling the material.

The Contractor's Environmental Officer must be informed of all activities that involve the use of hazardous substances to facilitate prompt response in the event of a spill or release.

4.25 Housekeeping

The Contractor must ensure proper housekeeping of the site for the duration of the project. If practical the contractor shall amongst construction personnel, assign one to be responsible for good housekeeping

Materials shall be stored in a neat and tidy manner in designated areas as per the approved site layout plan.

4.26 Rehabilitation

Contractors shall rehabilitate the entire site upon completion of work. A rehabilitation plan will be submitted to the TGC Construction Manager and EO for approval at least six weeks before project completion. The following, but not limited are critical issues to be included in the rehabilitation plan:

- Details of soil preparation procedures including proposed fertilisers or other chemicals being considered for use;
- A list of the plant species that will be used in the rehabilitation process. Note that these should all be indigenous species, and preferably species that are endemic to the area. The assistance of an appropriately qualified Botanist/Horticulturist should be sought in developing this list;
- Procedures for watering the planted areas (frequency of watering, methodology proposed etc.);
- An indication of the monitoring procedures that will be put in place to ensure the successful establishment of the plants (duration and frequency of monitoring, proposed criteria for declaring rehabilitation as being successful); and
- Procedures for the prevention of the establishment and spread of alien invasive species.

5 Documentation

Refer to the Construction Environmental Management Plan.

6 Records

All documents generated in terms of this procedure will be classed as records and retained for the life of the project for handover by the contractor to TGC (electronic and hard copies).